UTILISATION OF PRE-SCHOOL CHILDREN'S HEALTH SERVICES IN IBARAPA DISTRICT: IMPLICATIONS FOR HEALTH EDUCATION

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF PUBLIC HEALTH (HEALTH EDUCATION)

AT THE

DEPARTMENT OF PREVENTIVE AND SOCIAL MEDICINE
FACULTY OF MEDICINE
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AUGUST, 1982

A B S T R A C T

Differential utilisation is a phenomenon common to most health delivery systems. This situation is aggravated when it involves one of the vulnerable groups in the community, who are too young to express their health needs. It is pertinent to re-examine the services presently being provided, to determine how far it is coping in meeting the needs of this section of the community. This study was designed to examine those factors that impede utilisation of pre-school children health services based on the theories and concepts in health education in the light of which education strategies would be put forward and recommendations towards their implementation made.

400 mothers who make use of the pre-school children health services in Igangan, (Ibarapa district) were interviewed, in the course of which information on their knowledge, beliefs and perceptions were gathered.

3 research tools - questionnaire, documentation, and observation were used.

In administering the questionnaire, multistage and random sampling technique were employed and the sample units consisted of those mothers with a child under five years of age.

Analysis of the data by means of chi-square and correlation coefficient revealed that the utilisation pattern is influenced by certain antecedent factors which using Green's model could be grouped into three. These are predisposing factors (persistence of beliefs, poor knowledge of disease conditions and perceptions of provided services); enabling factors (time spent at the clinic, lack of facilities for immunization, probable inconvenience of present scheduled visits) and reinforcing factors (advice and cooperation received from the husband, family and health workers).

The utilisation behaviour of mothers existed in two interrelated perspectives:

1. Immunological status in relation to clinic attendance

   — mothers who had immunized their children (48.8%) and those mothers with no child immunized (51.3%).

2. Frequency of visits by mothers to clinics

Mothers with clinic attendances for health supervision below 50% (48.0%) those with attendances between 50-74% (28.7%) and those with attendances above 74% (23.3%).

The attendance rate is fairly high while a disparity occurs in acceptance of immunization which showed that fewer mothers than those attending clinic accept immunization.

In the light of the findings, educational strategies which included, use of communication methods that would effectively influence mothers beliefs and knowledge and community organisation designed to make use of available local resources in the improvement of accessibility of services were suggested. Other methods include staff training and programme development to improve the attractiveness of the available services.

ACKNOWLEDGEMENT

I wish to thank all the people who have contributed in one way or the other to make this study possible.

My profound thanks go to my Supervisors: Dr. J. D. Adeniyi, and Mr. Y. R. Brieger, of the African Regional Health Education Centre in the Department of Preventive and Social Medicine; for their interest, constructive criticism, and guidance throughout the study. I am also grateful to Mr. A. Olayinka of the Statistics Unit of the Department of Preventive and Social Medicine for his guidance prior to and during the data analysis of this study.

I am grateful to Mrs. Aiyetoro and Mrs. Ayoni, of the Igangan Maternity Centre, the staff of Ibarapa Post Planning Authority, Rural Health Centre, Igbo-ora for their cooperation and enthusiasm during this research. Also to Mr. B. A. Dawodu, Mrs. Y. Olujohungbe, for their moral and financial support. And to others who have made the completion of this study a reality.

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CERTIFICATION

We certify that this work was carried out by MARGARET MOJISOLA DAODU, in the Department of Preventive and Social Medicine, University of Ibadan, Ibadan.

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INTRODUCTION

The provision of health services for mothers and children has for many years been a priority to health organizations and various governments in the developing world. However a considerable percentage of children in rural areas of this part of the world receive little or no health care, as a result of various forces in their total environment. This is particularly evident among children under five years of age; one of the most critical periods for personality development. Under utilisation of health services has been identified among various other factors as being a determinant of the health of the African child.

Child health services have been provded in Ibarapa district for almost two decades. This study examines the preventive health services available for children 0 - 5 years of age in this area, and the response of mothers to these services. An attempt is made to determine the mothers health behaviour and perception of her child's needs, in the light of demographic, social and psychological forces which influence her choice of behaviour and the implications of these findings for health education.

The study has grown out of observations and conclusions drawn as a result of the work carried out during the author's field work programme in the Ibarapa district, which involved a community diagnosis survey.

With due consideration to the accelerating interest and dynamic pace of development of a community centred approach to health care delivery, a re-examination of the services so far provided is necessary, in order to assess if the needs of the target group is being met; the essence of which is to ensure the healthy development of the child from infant to adult hood. This is the rationale for embarking on this study.

Chapter one focuses on the essence of the pre-school programme, its basic concepts and principles. It also reviews literature on the determinants of differential utilization, and the behavioural theories and concepts involved in this study.

Chapter two, deals with the area of study, the community background, location, design and administration of the pre-school clinic service.

Chapter three, focuses on the study: the problem, objectives, hypothesis, research tools and methodology

used, and the limitations of the study.

In chapter four, the results, findings and observations are analysed in relation to the stated hypothesis.

Chapter five deals with the discussion of findings, inferences made and the implications for health education.

In chapter six, conclusions and recommendations based on the findings are put forward.

CHAPTER ONE

CHILD HEALTH: THE INTEGRATED CARE

The health of a child is affected by forces in the physical, social and biological environments. This requires provision of an integrated set of health and social services to promote, protect, restore and or maintain the health of a child. Such services should view the child within the context of his/her close relationship with the mother, the family and the community. As was expressed by W.H.O. (1969), the ideal for an integrated Maternal and Child Health service is to ensure that:

> Every child, wherever possible, lives and grows up in a family unit, with love and security in healthy surroundings, receives adequate nourishment, healthy supervision, and is taught the elements of healthy living.

This thus presupposes an integrated care service for the family, the modern concept of which has, maternal care, infant and child care, and family planning as the interrelated components. In addition, it encompasses the well-being of fathers, brothers and sisters within the general concept of community health.

Specifically, child care seeks to provide all the services necessary for optimal health of the child through infant, preschool, school and adolescent periods; and also attempting to ensure that by regular medical supervision, the child is not prevented from taking full advantage of its educational opportunities by reason of any physical or mental defect.

Level of Need:

Available statistics show that most of the world's children live in developing countries. In 1970, there were 78.6% living in less developed regions (Morley 1973). These children are subject to a high rate of disease and death from preventable, infective, nutritional and parasitic diseases interacting together. Studies have also shown that these diseases are concentrated in the first two years of life during which there is a high risk of death (Gans 1961, Morley, 1963a, Adesuwagun and Oduntan, 1976). Investigations have also shown that much of infant mortality, particularly mortality among children 1-4 years of age, can be attributed to the synergism between malnutrition and infectious disease, particularly post measles complication due to nutritional problems (W.H.O., 1965, Ogunmekan 1975, Morley 1963b, Bogucal, Aubry and Paladas 1962).

In Nigeria, the major causes of morbidity and mortality among this age group are malaria, measles, gastroenteritis, respiratory diseases and malnutrition (Morley 1963a, Ademuwagun and Oduntan 1976). This is also true of Ibarapa community. In most developing nations, the infant mortality rate (I.M.R.) is about 140-200/1,000 live births. In 1975, Africa had an I.M.R. of 150/1,000 as opposed to 1.6 - 27/1,000 in industrialised countries. Europe in 1975, had an I.M.R. of 21/1,000. Thus the I.M.R. of developing regions is 5-20 times as high as that of developed nations.

In 1975, the infant mortality rate was estimated to be 67/1,000 live births in Igbo-Ora, as opposed to the 1965 figure of 140/1,000 a 50% drop, which was as a result of the M.C.H. programme, health education and environmental sanitation activities in the area (Ayoni & Oduntan 1980). The rate is however still too high.

Pre-school mortality, that is, death in children between 1-5 years of age is as high as 15-25/1,000 population in the third world, while that of developed countries is as low as 0.5 to 1.5, thus the pre-school mortality in developing countries is 10-50 times as high as that of developed countries (W.H.O. 1978a, Udani 1978). The disparity in these vital rates of the more developed countries and the third world countries is very crucial,

as these reflect the standard of child health in the various countries. Hence, the provision of health care services to meet the needs of the young child is an important aspect of any attempt at total health care. For the past three decades, therefore, a lot has been done in the field of child health, particularly in developing countries, for the provision of effective health care suitable for the tropics and which takes into consideration the ecological characteristics of the countries involved.

THE PRE-SCHOOL CLINIC

Basic concepts:

In many developing countries including Nigeria, preventive and curative services for the child were often separated as was common in western medicine in the early 20th century. This comprised the curative children's out-patients clinic and the infant welfare clinic, otherwise called the well-baby clinic, which is exclusively concerned with prevention. Williams (1955), Jelliffe (1967), Cunningham (1969) and Wray (1974) among others, highlighted the unacceptability and ineffectiveness of this dualistic approach to child care, and advocated for a better integrated care.

In their view, the over-burdened, over-worked mother cannot be expected to carry her healthy 3 months old baby to one type of clinic and at quite another time and place, try to solve the problem of transporting her heavier, barely walking, ailing pre-school child to the hospital out patient department. The pre-school children's programme is thus an attempt to redress this situation.

The outcome of Morley's (1963) study in Imesi, Ilesha, was the birth of under fives clinics, an idea which has gradually spread from Nigeria to Sierra-Leone, Zambia (Sonnayake 1973), Malawi (Cole-King 1975), India (Cook and Vyathi 1970), Tanzania (Bornstein and Kreysler 1972), and Uganda (Sorile 1977).

A special feature of these clinics is their record keeping system - the "Road to health" card. These cards are issued to every child who attends the clinic and are kept at home by the parents. The initial purpose of the card was to reduce waiting time at the clinic. Also, it has the added advantage of being of educational value even to the illiterate mother. The chart if well maintained provides an up-to-date and easily accessible picture of the child's progress, including his age,

nutritional state, immunization record and major illnesses and helps as well in the identification of the "at risk" child. (See appendix I)

Essential activities and aims:

The essential activities of a pre-school clinic rest on the cornerstone of treatment, immunization and health education. Of these, weighing is exceptional to the others, as the weight curve that results, acts as an evaluation of the other three activities, the aims of which may be summarised as follows:

1. The supervision of the health of the children up to the age of 5 years.
2. The prevention of malnutrition, malaria, measles, pertussis, tuberculosis, smallpox, poliomyelitis, diphtheria, and tetanus.
3. The provision of simple treatment for diarrhoea, with or without dehydration, pneumonia, and the common skin conditions.

As proposed by Morley (1976), the pre-school clinic offers curative and preventive services, in the context of which the mother will receive health education at a number of stages, as she passes through the clinic. The child will be weighed and the weight charted, and any immunisation [illegible] the well child. Sick

children, however, will receive treatment for their symptoms. The clinic, where possible, should also be run in conjuction with an antenatal clinic and family planning services all of which need to be available to the mother at every visit.

Health Education: the integral part:

Health education, which is concerned with providing learning experiences leading to responsible decision making and voluntary adoption of those practices which promote individual, family and community health, is an important component of the programme, and it should ideally, permeate all the activities of the clinic. The target group should in this case be children 0-5 years of age. Since they still require their mothers to recognise and express their health needs, the focus is on these mothers. Also, it involves the family members, opinion leaders, health professionals, policy makers and planners, whose advice, example and decisions influence health related behaviour. In the pre-school clinic health education is essential in informing mothers about their health responsibilities, for example, adopting practices which promote and protect the child's health, seeking care when needed, and complying with medical and nutritional advice.

Morley in 1976, proposed 3 phases of health education in the pre-school clinic. Foremost, is informal teaching which should be done by all the staff - making use of the following periods;

- during consultation, in which not only the child's mother but other waiting mothers are involved, these thus learn by overhearing.
- during immunization, which provides an ideal opportunity for the mother to relate her knowledge of disease and prevention to immunization.
- during weighing which creates an opportunity for nurse/mother discussion and highlights the importance and use of the growth chart to potray a child's development.

Secondly, formal teaching periods should be provided for teaching and group discussion on selected topics by the specialised staff.

The third phase, consists of weekly staff meetings, in which all the people involved in running the clinic discuss issues relating to improvement of the services. Emphasis is placed on health education of all members of the staff, including the most junior as they too could be asked for advice.

Ideally, health education should be adapted to the needs of a maternal and child health programme (Ramos 1978). The type of health education employed should suit the particular situation and group. Health education should follow the guiding principles and practice, which emphasise the cooperation and participation of the target population:

Planning - active participation of mothers affected by the health problem ensures that behavioural changes needed would be voluntarily adopted and more likely to be integrated into their life style, as opposed to externally imposed changes.

Diagnosis - Since the type of health education employed should be

1. based on a diagnosis of the educational problem, this involves a consideration of the health behaviour problems and their underlying causes within the target population and its various subgroups.
2. based on an understanding of the meaning recommended changes have for those who are expected to act. This requires an identification of factors supporting

present behaviours and working for or against recommended changes. Particularly relavant to child health are local beliefs, values, and attitudes pertaining to child care as these affect health status of the child and health behaviour of the mother.

Goal setting - this should be based on the needs, values, and prior experiences of the target group.

Implementation- using concepts and language familiar to the mothers based on their level of knowledge and custom and should not violate the privacy, dignity and worth of the individual.

Evaluation - which should take place continuously throughout the programme and involving all participants.

Health education should be conducted at times when people are most receptive and ready for learning e.g. mothers seeking care for a health problem are receptive to learning how a recurrence can be prevented, once some relief for the present condition of the child has been provided. Thus health education while facilitating changes in mothers health behaviour, promote judicious utilisation of available services.

UTILISATION BEHAVIOUR: IN PERSPECTIVE

Types:

Utilisation is generally expressed as the making use of formal health services such as the hospital, dispensary, and health centre by the eligible groups or clients. While non-utilisation is the converse, however, the groups may make use of informal health services like pharmacies, patent medicine stores, traditional herbalist, faith healers and home medication. Utilisation problem arises when the use pattern do not match service capabilities, and when service capabilities do not match community need. It thus comes to light, that there are under-utilisers, over-utilisers as well as inappropriate utilisers. (Brieger, unpublished work).

Under-utilisation: Trends have shown that under-utilisers are usually those belonging to the high risk group who require medical care urgently and constantly and make least use of it (Morley 1976b, Zinkin & Cox 1976). Under-utilisation could result from the following:

- the continuance of traditional beliefs which may guide more people to the herbalist than to a health centre;
- attitudes and actions by some health staff which may turn some clients away;

- political pressure that may result in building too many facilities in one area where the population is not large enough to support such facilities;
- people who may not use a service simply because they are unaware of its nature and existence;
- the location and cost of some of the health services may not be convenient.

Over-utilisation: Can result if:

- the demand and need for care outstrips the facilities and health manpower in a given locality.
- citizens are not attending to primary prevention in their own homes.
- a large number of clients with chronic diseases (e.g. hypertension, diabetes) do not have their condition under effective control, resulting in recurrent crises.

Inappropriate utilisation: Often floods the system with unnecessary demands that may make it impossible to serve those with real needs. It can result:

- from constant use of casualty departments by many citizens as a source of primary/out-patient care;

- when clients take simple preventable problems (e.g. malaria) first to the State Hospital, instead of the local dispensary or health centre, thereby wasting the time and resources of other patients/health workers;
- from mis-use of specific special services by clients e.g. where abortion services are legal, clients could use them as a method of birth control.

Determinants:

The differentials in utilisation rates has generated an abundance of research on utilisation behaviour and its related fields as part of an effort to provide health care on a more equitable basis. A review of literature, shows an agreement on factors influencing utilisation behaviour and the different types of relationships between these determinants and utilisation. (McKinlay, 1972). The variables involved could be grouped broadly as:

1) Socio-demographic determinants: Studies have shown that utilisation behaviour is directly related to age and sex of child, age of mother, parental education, religion, ethnicity, occupation, family size and composition, socio-economic

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status and family interactions (Young 1966, Bornstein and Krosler 1972, Solwyn 1978, Gosler, 1979).

2) Geographical determinants: The geographical proximity of services to the target population directly influences attendance in terms of the travel time and effort required and availability and cost of transport (Solwyn 1978, Bornstein and Krayslor (op cit).

3) Economic determinants: financial cost of services and family and individual income all of which could create a "financial barrier" to the use of services. (Frazier, Jonny, Bagrazian, Robinson & Prophet (1977), Bornstein and Krayslor (op cit).

4) Socio-cultural determinants: in terms of the norms, values, beliefs, life-style, definition of situation and social class (McKinlay 1970, Ulin and Uhin 1981).

5) Socio-psychological determinants: which recognise that perception, motives, belief, attitudes, knowledge, awareness and need play a role in utilisation behaviour (Rosenstock 1966, Luft, Hershey and Morral 1976, Cox and Fuqua 1965, Conell [illegible] and Pierce 1962).

6) Organizational determinants: in terms of the client/professional interaction and clients interaction with the delivery system, methods of scheduling appointments and other service design factors. (Young 1966, Freidson 1961).

This thus portrays the multidimensional nature of utilization behaviour. As was re-emphasised by Jelliffee (1974) in many health care activities involving behavioural change, the clients knowledge and attitude, socio-cultural and environmental factors and interpersonal relations between clients and health programme personnel are of great importance.

Specifically in relation to child health services, various researchers Gans (1961), Gesler (1979), Oyediran (1976), Morley (1976b), Adekunle (1979), have highlighted the effects of socio-demographic variables such as the age of the child, parental education, occupation, social class, friends' expectations, time spent at the clinic as positively affecting utilisation of immunization services and general attendance at the clinic. Gesler (1974) in his Calabar study found that relatively more western contacts and more travel time efforts were made for infants than older children, western contacts being taken as visits to formal health clinics. Olugbile

(1974), Oguntokun (1979) and Adekunle (1979) in their studies, showed that parents of higher educational level, and socio-economic level, tend to complete their child's immunization.

Based on the rationale that health behaviour is often a result of antecedent factors (independent variables) which interact to determine the mother's use of services (dependant variable), the concept of Green's (1979) behavioural antecedents model is used for presenting the variables involved in this study (fig.I). These have been grouped into three.

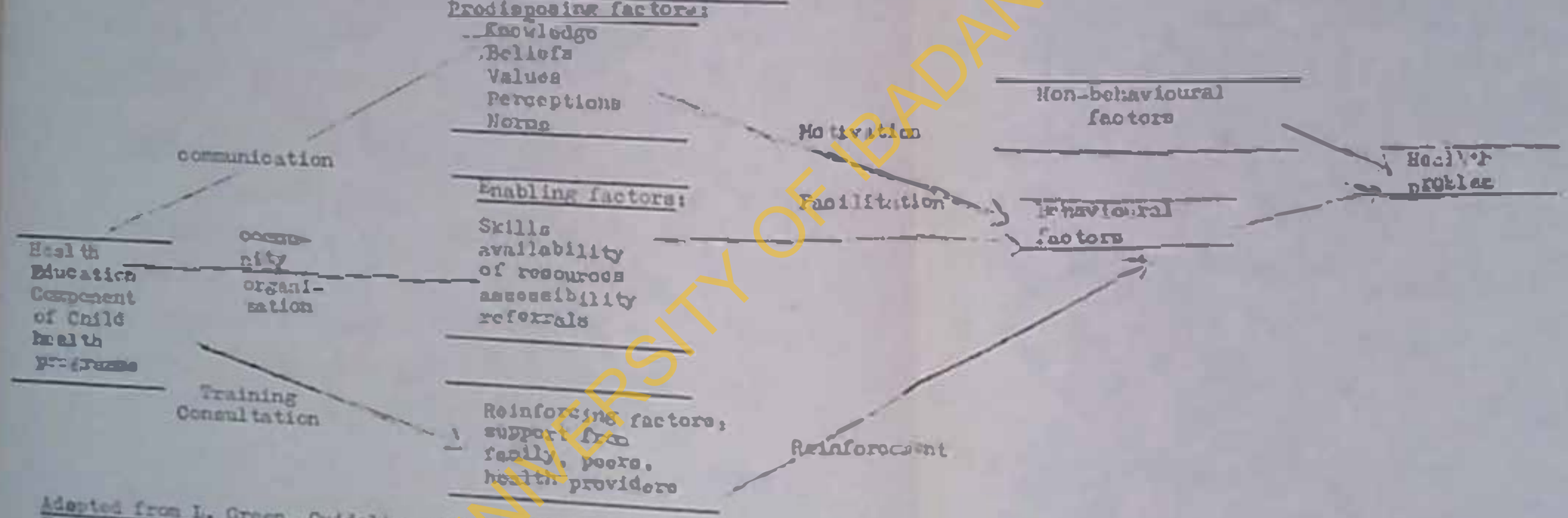
Pre-disposing factors, which are those personal preferences which may either inhibit or support health behaviour. These are mother's beliefs, health and service knowledge, values, norms and perceptions.

Enabling factors are those skills and resources necessary to facilitate utilisation of the clinic, such as, availability of facilities and personnel, time spent at the clinic, cost of services, ability to know when to seek help.

Reinforcing factors, are those that determine if the use of the clinic is supported. Whether the reinforcement received is positive or negative will depend

Figure 1

Relationships among factors considered in the Assessment of Health Education Needs



Adapted from L. Green. Guidelines for Health education in Maternal and Child health International Journal of Health Education Suppl., Vol. XXI, No. 1, July - Sept., 1978. pg.9

on the attitudes and behaviour of significant people, some of whom will be more influential than others in affecting change in mothers' health behaviour. In this study the influence of health workers, husband, family and social relationships will be examined.

Demographic variables such as parental age, education, occupation are grouped as non-behavioural causes. The utilisation behaviour exhibited by the mothers is taken as the dependent variable, while the antecedent factors proposed are taken as the independent variables.

OPTIMAL UTILISATION: STRATEGIES FOR INTERVENTION

Any measures aimed at promoting optimal levels of utilisation could in this context be taken as corrective measures. Some authors have advocated for health education interventions as a means of improving the present state of affairs (Roghmann 1975, Bornstein and Krayaler 1972, Ullin and Ullin 1981, Brieger unpublished mss.).

Health education interventions could be employed to correct any anomalies in the already established services and more ideally, during planning and implementation of future programmes.

These include:-

Communication - communication skills directed at influencing knowledge, beliefs and norms such as

counselling and outreach on the individual and family level which would aid in giving more personalised services and increased use.

Community Organisation - which would facilitate development of available resources and skills through the organisation of women groups training of women leaders and primary health workers.

Training and Consultation - to improve, on the skills of the staff and also directed at facilitating good client/professional relationships through implementation of methods such as "open house" where the community members are invited to the clinic to know about the services available to them.

These measures that have been advocated would on their part, bring about the achievement of one of the aims of health education which is for people to use judiciously and wisely the health services available to them.

CHAPTER TWO

THE STUDY AREA

The town:

Igangan, located on latitude 8°N and Longitude 3°E, is one of the three towns making up Ibarapa West Local Government Area (L.G.A.) of Oyo State, Nigeria, the others being Aiyete and Tapa, and some outlying villages (Asunara, Igbo-Iowo, Elekokan and Oyo) (fig. II).

This area is bordered on the east by Ibarapa East Local Government Area, comprising of Eruwa, Lanlate, Tomidiro, Kaya and Okolo. On the South is Ibarapa Central L.G.A., comprising of Igbo-Ora and Idere. These three areas made up the old Ibarapa district (fig. III).

Geography:

The area is made up of undulating grassland with a few rock outcrops. The river Ofiki, one of the major rivers in the district flows through the outskirts of the town. Rainfall in this area is moderate with little or no rains in the months of November to February. As a result, the vegetation is mainly wooded savannah, a transition between tropical savannah and rain forest.

FIG 2

MAP OF IGANGAN SHOWING MAJOR PARTSOF THE TOWN.

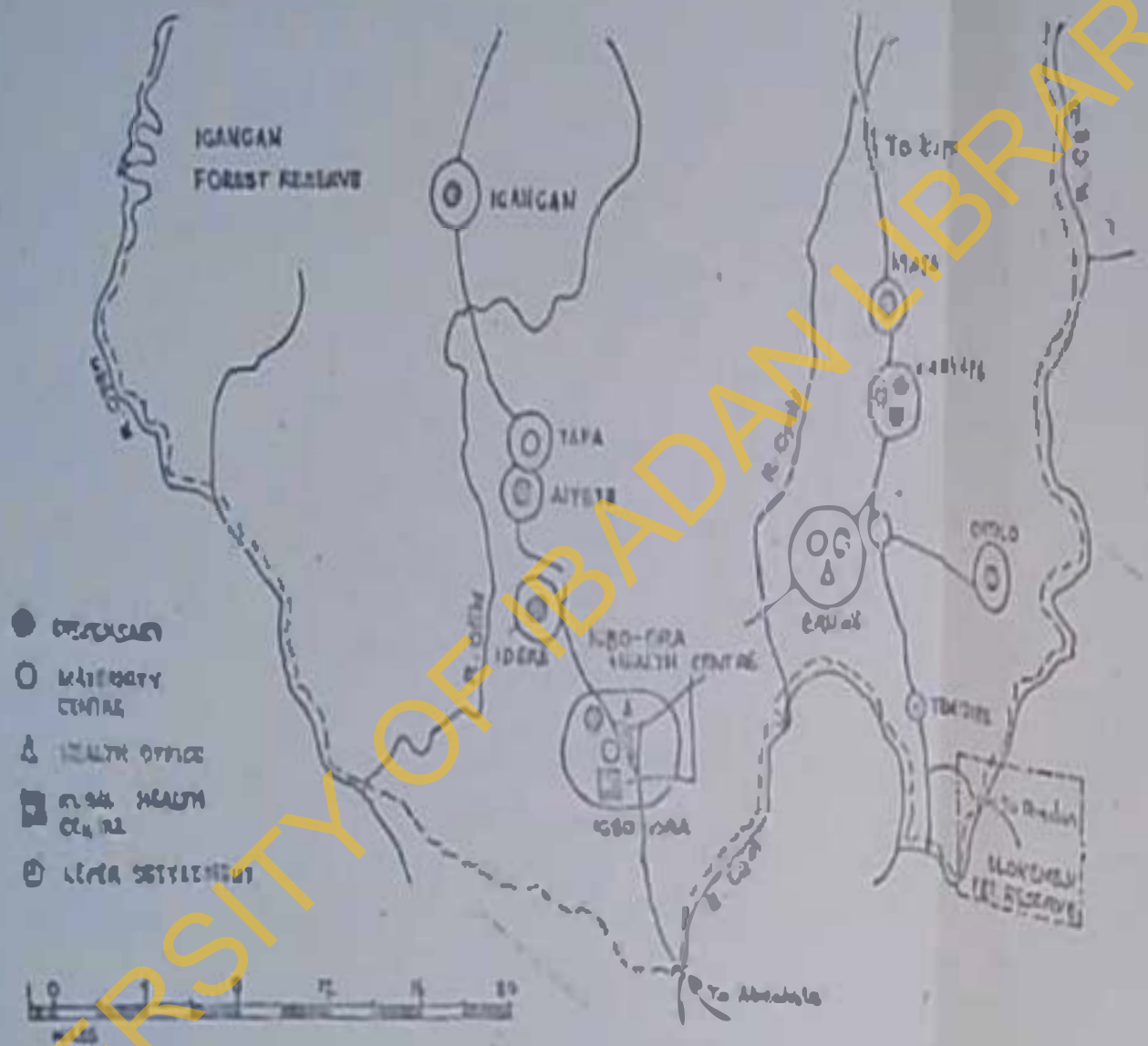


Fig 3. Map of Ibarapa District showing existing Medical & Health Facilities

One of the two forest reserves in the district is located on the north west of Igangan. The town is a nucleated settlement with the houses clustered in compounds and all sharing the same social, educational and health facilities. The farm steads and farms are located in outlying settlements. Igangan town is linked to the other major towns in the district and outside by a network of roads (fig. IV).

Demography:

According to the 1963 census, Igangan had a population of 15,562, while Ibarapa district had a population of 136,000. Using the estimated 2.5% growth rate, Igangan town should now (1982) have a population estimated at 24,878 (it should be noted that due to the unavailability of recent census figures, the 1963 census figures prevails, and it is from that projections were made). However, an estimate of the present population was done based on the 1982 town plan of Igangan and observations made during the study, which showed approximately 753 houses present. Based on the assumption that a household is made up of about 5 families i.e. between 15-18 people/

house, the present population would likely be 11,295 - 13,554 which is less than the 1963 census figures, and the 1982, projected estimate. This discrepancy in population figures was also highlighted in the 1974 survey of Igbo-Ora, a town in the district, which showed that in 1974, the population of 30,186 was only 1,190 higher than the 1963 census figures (29,296) the projection of which should give an estimate of 38,568 in 1974. (Oyeni and Olayinka 1979). As there is no evidence of any major or continuous out-migration in the district, those anomalies could be accounted for by over-enumeration and political inflation of population counts during the 1963 census period.

The people:

The people of Igangan and the rest of the district are mostly Yorubas and trace their origin from Old Oyo town, from where they fled during the Fulani Jihad in the early 19th Century (150 years ago approx). There are presently a few cattle Fulani in the area. The two modern religions practised here are christianity and Islam.

Various denominations of christians abound e.g. Methodist, Baptist, Cherubim and Seraphim.

Notwithstanding, the traditional faiths of the people are still being practised, some of which are Oro, Egungun, Sango, Oya and Ogun worship. Prominent among these various gods and goddesses worshipped is "Anko" a god believed to reside in the hill beside which the town is located. It is worshipped yearly by the whole community and is believed to have protective power against deadly diseases like small-pox and other calamities.

Social structure:

The community structure is hierachical in nature starting with the Baale, as the distinctive ruler, followed by his Chiefs, compound heads, and household heads. The typical compound is made up of a patrilocal extended family comprising of a man, his wife/wives, his married sons, their wives and children, and his other unmarried children living in separate households. Among the moslem section of the community polygamy is quite common, while among the christians the family pattern is mainly monogamous. The traditional government is represented by the

Basic and his chiefs while the modern government is represented by the local government authority (L.G.A.) comprising of supervisory councillors drawn from various sections of the community. For administrative purposes, the L.G.A. has various departments (e.g. health, works and housing, education) that cater for the need of the community and liaises between them and the state government.

Occupation:

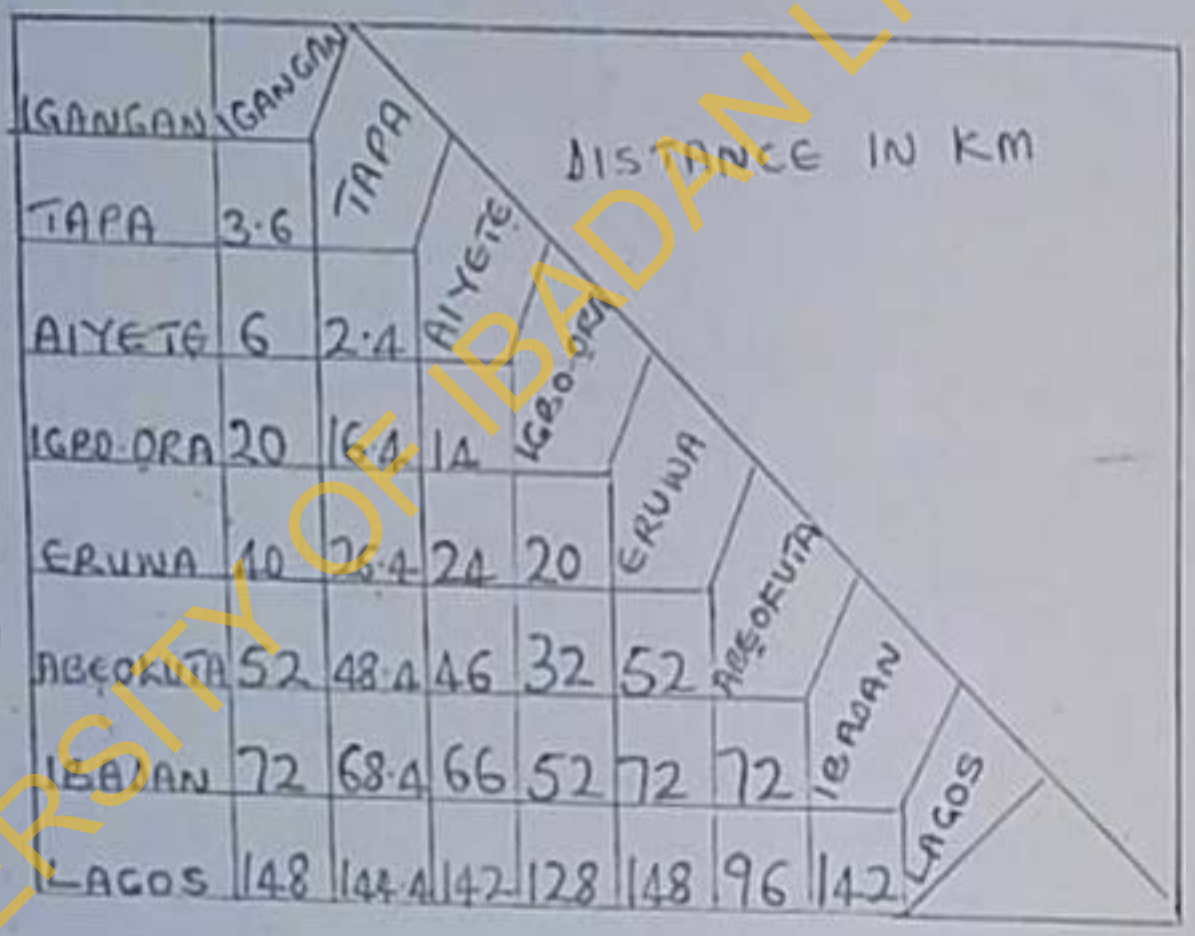
The majority of the people are farmers engaged in small scale subsistence farming of mostly food crops like cassava, melon, and maize. These, however, now serve as cash crops as they are grown in commercial quantities. The old cash crops like tobacco and cocoa have decreased in output due to neglect of agriculture as a result of the oil boom. A few livestock like goats, pigs and poultry are reared, while the Fulani rear cattle on small scale.

Second to farming is trading, the articles of trade include woven materials and food crops. Notable among the

occupational groups is the role of women, who besides working on the farms, engage in either petty trading of foodstuffs in the local markets, or commercial trading which involves regular travels to other major towns e.g. Ibadan, Lagos and Abeokuta. Some buy to resell at home while others stay in those towns for a period of time to sell items they have brought from home. There is thus the existence of trading groups, e.g. bullon sellers association, palm-oil sellers association among the women, the head of all the market women being the Iyaloja, (female chief) who is always consulted on all issues involving the women and represents them in decision making groups.

The increase in commercial trading has led to a progressive development of transportation as an occupation for the men, most of whom are professional drivers and who commute between the town and other towns within and outside the district. Other occupational groups include metalsmiths, palmwine tapping, cheese making, tailoring and carpentry all of which are usually combined with farming.

Fig 4: ROAD DISTANCES IN IBARAPA WEST L



	IGANGAN	TAPA	AIYETE	IGBO-ORA	ERUNA	ABEOKUTA	IBADAN	LAGOS
IGANGAN								
TAPA	3·6							
AIYETE	6	2·4						
IGBO-ORA	20	16·4	14					
ERUNA	40	36·4	24	20				
ABEOKUTA	52	48·4	46	32	52			
IBADAN	72	68·4	66	52	72	72		
LAGOS	148	144·4	142	128	148	96	142	

FIG 5

MAP OF IGANGAN SHOWING THE 5 MAIN WARDS

HEALTH FACILITIES

Igangan has a maternity centre and dispensary which are being run by the Local Government. These serve the town and its outlying villages. These units treat minor ailments and provide antenatal and delivery services. Complicated cases which cannot be coped with are referred to the Rural Health Centre at Igbo-Ora (20km away) or the District Hospital at Eruwa (40km from Igangan).

Infant and Child Health Services:

The maternity centre provides health services for children 0-5 years of age in form of weekly pre-school children's clinic. Older children are served at the dispensary.

Personnel: These are,

Maternity Staff:- 1 nurse/midwife
1 community health assistant (C.H.A.)
2 ward maids

Dispensary Staff:-
1 pharmacy assistant
1 orderly

Services:- 4 services are rendered at the clinic. These are:-

- immunization
- health supervision
- health education
- treatment of illness

Shift duty is carried out in order to provide continuous health services. The midwife who is in-charge of the maternity centre resides within the premises and is on 24 hours call-duty. Under the basic health services scheme, C.H.E.'s have been trained for M.C.H. services in rural communities. Treatment services are provided for the sick daily everyday of the week and in some cases home visits are carried out as a follow up.

Immunization: There are no facilities for immunization at the clinic, thus they depend on the extension services of the Rural Health Centre at Igbo-Ora, in form of monthly visits for this purpose. This is, however, subject to the availability of the vaccines. The immunization schedule used applies to the rest of Ibarapa district and this is:

BCG	to be given at	3 months
D.P.T. (1st dose)	"	3 months
Oral Polio (1st dose)	"	3 months
D.P.T. (2nd dose)	"	6 months
Oral Polio	"	6 months
Measles	"	6 months
D.P.T. (3rd dose)	"	9 months
Oral Polio	"	9 months

Health Supervision: Weekly clinics are held to monitor the child's health and development. Mothers are expected to attend once a month. Health supervision revolves around the following activities.

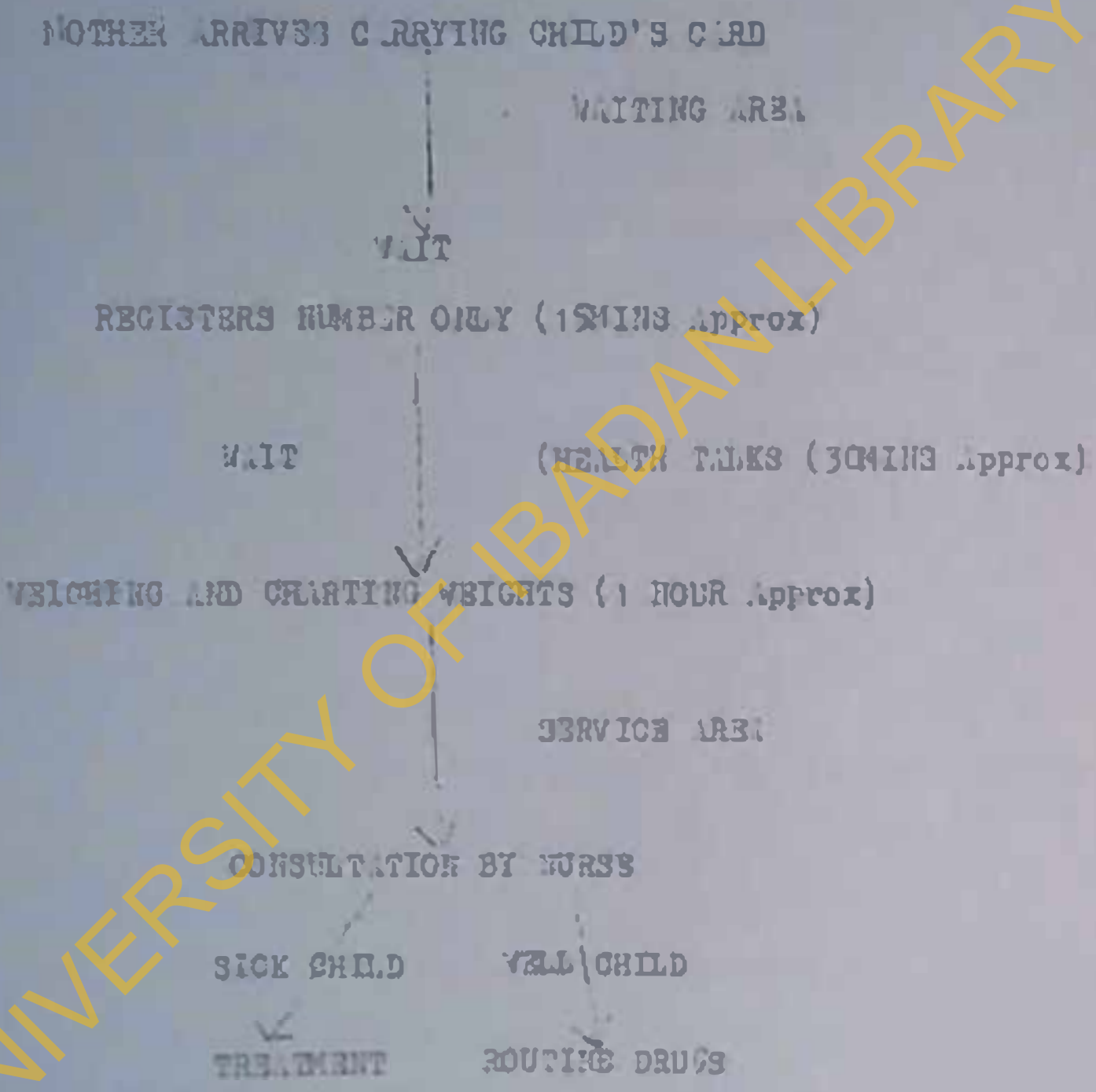
- Health education, in form of formal health talks given by the sister on selected topics such as diet, food preparation, personal and environmental hygiene, and prevention of some childhood diseases. Individual counselling is also carried out during consultation. Most often

health songs accompanied with dancing are often utilised to drive the points home. There is inadequate provision of a waiting area for the mothers; health talks are often done in the open, while mothers stand around. This lack of comfort greatly depreciates the mothers attention as the talk progresses.

---- Routine weighing: the children are weighed by the ward maid after the health talks. The weight is recorded on the growth chart once a month, however anytime the child is attended to at the clinic the weight is always taken and recorded on the pre-school treatment card. (App. III).

—— Consultation/treatment: Consultations are held by the nurse during which routine drugs such as Darprim, Multivito and Aspirin are dispensed to the well child. Sick children are

FIGURE 6 SHOWING LINE OF FLOW OF CLINIC ACTIVITIES



treated for their specific ailments in addition to receiving the routine drugs. Due to the shortage of qualified staff, most examinations are not quite thorough. The nurse often depends on the symptoms the mother describes. Serious cases are referred to the rural health centre. Of note is the observation that consultation and counselling are done while other mothers listen in. Though drugs are given free under the free health programme, these are sometimes unavailable. Thus prescribed drugs have to be bought from the local patent medicine stores.

Duration of clinic activities: The clinic is held in the morning from about 9 a.m. till 12 noon. Figure 6 shows the line of flow of clinic activities.

Other health facilities:

There is the existence of patent medicine stores and drug peddlers who sell prescribed drugs not available in the clinic. Another source of health care is the herbalist (Alewo Oco), the native doctor, and faith healers all of which engage in provision of health care for the community.

A 60-bed General Hospital financed by the State Government is under construction on the outskirts of the town. It is proposed to house a children's ward among others. However, financial and water problems have greatly retarded the pace of work.

Health related facilities:

Igangan lacks amenities like portable water and electricity. Most of the water available is fetched from brooks and ponds. There are 7 wells out of which 4 are still functioning, which is greatly inadequate. Institutions like school, the maternity centre and churches have, through self help, built wells and pit latrines which are lacking in most homes in the town. There is no proper method of refuse and sewage disposal in the community, thus the indiscriminate dumping of refuse and sewage around the back of houses is practised.

Most houses in the town are built with mud and roofed with iron sheets and usually have small windows which provide inadequate ventilation. The road connecting the town with the other towns in the district is tarred though it is in a poor state, while those leading to the

villages are untarred and often lack vehicular transport, which poses communication problem between Ibadan town and its outlying villages particularly during health crisis. From a consideration of the multidimensional nature of utilisation behaviour, the study is carried out bearing in mind the influence exerted by these environmental factors.

CHAPTER THREE

THE STUDY

The Problem:

The Ibarapa district which includes Igangan was initially used as a field work site by the researcher and others, during which a diagnostic survey of health and health-related problems in the area was carried out,.(N.F.H. diagnostic study 1981). Many problems were evident, prominent among which is the occurence of some preventable diseases, namely guineaworm, measles, malaria, malnutrition and diarrhoea. Four of these diseases have greater impact among the pre-school age child.

The pre-school clinic programme provides immunization services against diseases such as measles. However, of note is the continued prevalence of these diseases and low success of health education activities that have been going on so far. From discussions with the health staff and observations made by the researcher during the group diagnostic survey, inadequate utilisation of the available services in terms of non-completion of immunization schedules, and decreasing attendance of mothers over time, were behaviours which have contributed

much to the present situation, and which is the focus of this study.

The decrease in attendance of mothers with increase in age of her child, undermines, the essence of continuous health supervision of the child till school age. Though morbidity and mortality, are higher in infancy than in later years, older children are also prone to various ailments, as a result of neglect and deprivation. In the pre-school child, protein calorie malnutrition, in complication with measles or diarrhoea, is a major cause of morbidity, and usually has the peak incidence during the second and third years of life.

Non-completion of immunization gives rise to inadequate protection of the child against future contraction of disease condition which may prove debilitating to the child's health. Health education inputs, thus facilitates the effectiveness of these services, in so far as it is planned, consistant and integrated.

This study is a diagnosis of the behavioural problem with a view to determining the variables which promote or inhibit these health behaviour and the health education inputs which need to be improved or provided in the existing programme.

OBJECTIVES OF THE STUDY

Broad objective:

To examine the utilisation of preventive health services by mothers of under-fives bearing in mind social values, and cultural beliefs which influence the mother's health behaviour.

More specifically the research will seek:

1. To identify preventive health services available for the pre-school child.
2. To ascertain the extent of utilisation and benefits derived therefrom.
3. To determine the cultural beliefs, social and demographic factors which influence the mothers' health behaviour in relation to those services.
4. To ascertain the acceptability of those services in terms of the mothers' perception.
5. To determine the extent of involvement of the family, kin, and friendship networks in the mothers' decision to use those services.
6. To examine and analyse the role health education could play in the improvement and effectiveness of the services.

Hypothesis

For the purpose of carrying out these objectives, certain hypothesis will be tested. In order to facilitate measurement, the following utilisation behaviour have been targeted for study:-

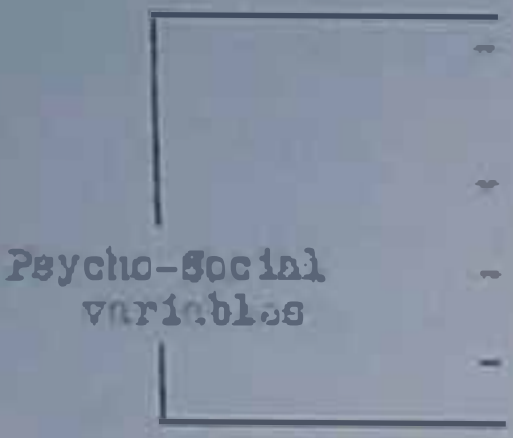
1. General attendance of mother at clinic.
2. Specific attendance for well-baby service e.g. weighing and health education.
3. Seeking immunization services.

The hypothesis will compare these behaviours with demographic, social and psychological variables to determine the antecedent factors influencing utilisation.

These are:-

Socio-demographic variables
- Age of child
- Age of mother
- Religion
- Mother's occupation
- Type of family

These will help pinpoint target groups.



These will help determine the nature of the health education needed.

Ultimately, this will enable the researcher to identify, health education interventions that are appropriate to the nature of the problem in Iyangan community.

HYPOTHESIS

Child Attendance:

1.1 That the age of the child determines the pattern of attendance exhibited.

1.2 That mothers of different age groups exhibit different modes of clinic attendance.

1.3 That mothers of different religious affiliation show different modes of clinic attendance.

1.4 That mothers with different educational background exhibit different modes of attendance.

1.5 That mothers of different occupational groups exhibit different modes of attendance.

1.6 That the type of family a mother comes from determines her mode of attendance.

1.7 That the extent of cooperation and support a mother receives from significant members of her family determines mode of attendance.

1.8 That the mothers opinion of suitability of time spent at the clinic determines her mode of attendance.

1.9 That there is an association between mother's health knowledge and attendance.

Child Immunization:-

2.1 That mothers of different age groups show different response to their child's immunization

2.2 That there is a difference in the response of mothers of different occupational groups to their child's immunization

2.3 That mothers of different educational background show different response to their child's immunization.

2.4 That there is an association between the mothers status in the family and her response to her child's immunization.

2.5 That there is an association between the mothers usual source of advice and her response to her child's immunization.

2.6 That there is an association between the mothers belief of the cause of her child's illness and her response to her child's immunization

2.7 That there is an association between mothers health knowledge and her child's immunization.

MATERIALS AND METHODOLOGY

In this study, a combination of interelated tools were used for data gathering with due consideration of the various facets of the problem and to obtain adequate factual information. These are:-

1. Observation
2. Interview making use of structured questionnaire
3. Records in form of the home-based "Road to health" card
4. Clinic record.

To carry out the first objective, observation of what is available in the clinic, records and interview of staff were utilized, while objectives 2 - 5 were archieved through the use of questionnaire and the road to health cards, which are issued to all mothers' who bring their children to clinic.

Observation:

Prior to and during the study, the pre-school clinic was visited and the researcher participated in all the clinic activities. This provided opportunities for discussions with the mothers on their child's health, health knowledge and practices, including consultation with the staff. Specific observations of the following

areas were made:

Clinic attendance	-	attendance rate and mode
Clinic activities	-	Health talks, routine weighing, duration of all activities and participation
Facilities	-	Available equipments and materials
Social environment	-	Staff-patient interaction, patient-patient interaction.

Interview:-

(a) Sample size:

In this study the target population was mothers with children 0-5 years of age. From census projection, the population of women within the child bearing age group (15-50 years) is about 6,061 while the population of children 0-5 years of age is about 3,200. Assuming that there will thus be at most 3,200 mothers with a child 0-5 years of age, a 12.5% sample approximately 400, of these mothers were then interviewed.

(b) Sampling method:

Ibarapa town is made up of 5 wards. In each ward, there are compounds, comprising of a number of households of the same extended family. These compounds were also used as census enumeration areas in 1963.

Table 3.1 shows the names of wards, compounds and number of houses.

Table 3.1 showing the major wards & compounds in Ibadan

Ward	Compound		Number of Houses
Isale Oja	Agoro	Aluhata	
	Bale Layeni	Oluwo	
	Gbonlu	Gbogo	
		Enogun	171
	Babaeje	Pakoyi	
	Otta	Baale Ingo	
	Agba-akin	Elegbeda	
	Elefi		
	Ebukoko		
Isale Akmo	Aboke-Bole	Olodeokuta	
		Olana	
	Badan	Aare Ilu	
		Ejemosin	
	Ikonlaba	Onike Obeso	92
	Agunloye I & II	Alapedun	
		Lemomu I & II	

	Orisafi	Iya Isalo	
	Soriki	Asipa	
	Barojo Awi	Balupona	
	Olodo		
	Kulo		
	Ajana		
Igitolo	Baba elegun	Ili Iyaye	95
		Iyalodo	
	Abeso	Baale Aawumara	
		Iya Ikoko	
	Asalu wala	Iya Jua	
	Igitolo		
	Ogungu		
Oke-Ola	Abaogba	Eloti	323
		Balogun	
	Olola	Aberejo	
	Koloyo	Abeso	
	Abore	Osunajo	
	Ilodo	Ayo	
	Alagbede Alagbogbo	Oyilaku	
	Pongolo Ideyin	Aromoye	
	Ibilayon		

Oke Atapo	Sfunleye Gan Ajana Ara-Oje	72

Two compounds were selected by balloting from each of the 5 wards. In each compound selected all women with a child under five were interviewed, as shown in table 3.2

Table 3.2 showing method of sampling

Wards	Compounds		No. of Women
Isale Oja	Bale Layeni	-	42 = 89
	Gbonka	-	47
Isale Akmo -	Ikonlaba	-	39 = 67
	Kulo	-	28
Igitelu	Baba elegun	-	18 = 60
	Igitele	-	42
Oke ola	Babanogba	-	48 = 93
	Alagbodo	-	45
Oke-Itapo	Akere	-	46 = 91
	Sfunleye	-	45

It is of note that Isale Oja and Oke-Ola wards have relatively large compounds with the highest number of houses, thus the two compounds chosen in each case were able to provide a considerable number of eligible women. Oke-Itapo, though a new ward also had a high number of women in this category.

(c) Questionnaire:

The questionnaire used was designed to elicit information on the health and service knowledge of mothers who have already initiated medical care and in consequence have undergone treatment, as well as those who have not made the decision to seek medical care for their child. Specifically, attention was focused on those determinants outlined in the literature review which are being put towards as influencing utilisation. Questions 6-16 among others focussed on socio-demographic variables, while questions 32-36, among others focus on knowledge, attitude and practice variables, questions 21-31 were drawn to elicit information on the health status of the child (see appendix II)

The "Road to health" card which is given to all children registered at the clinic and which their mothers take home, was used during the household interviews. This was to determine the attendance, illness and immunization record of the child. The health record of only the oldest child under five years, of a mother interviewed was used based on the following reasons:

- it allows every mother to be represented in the sample, and to prevent over-representation or under-representation of children in a particular age group.
- use of one child per mother would be proportional to the number of mothers in the sample.
- a mothers subsequent experiences in the use of the clinic with respect to the second, third or fourth child is subject to errors due to experiences gained in first use.

The house interviews were conducted by the author and 5 research assistants, who had been previously trained in the filling of the questionnaires. Those questions requiring data from health cards did not apply to mothers who had never made use of the clinic and thus do not possess these cards. This however does not restrain collection of other information from these mothers.

(d) Pre-test:

A pre-test of the questionnaire was carried out on 10 mothers at the Rural Health Centre, Igbo-Ora to assess the suitability and rate of comprehension of the questions. Igbo-Ora was chosen because mothers here speak the same dialect and are of the same culture.

as a means of reducing bias, such as mother's inability to adequately express her beliefs and knowledge due to presence of clinic staff and fear of giving information about her family to strangers, the following steps were taken:

1. It was stressed to the mothers that
   a) their names were not required
   b) responses were needed for improvement of services only
   c) responses were confidential
2. Research assistants were indigenes of the town and in no way associated with health work
3. Interviews were conducted at home which facilitated easier communication, comfort and encouraged mothers to express their views without fear of being reprimanded.

(e) Training of research assistants:

The 5 research assistants were trained prior to the conduction of the household interviews by the researcher and the community health assistant. The training focused on:

(1) Introduction of the purpose and scope of the interview

(2) Confidentiality of the responses

(3) Mode of conducting each question to elicit adequate information.

Supervision during the period, which consisted of correction of problems arising from interpretation of health cards and attitude of the mothers to interviews, was carried out by both the researcher and the community health assistant. It should be noted that the research assistants, apart from being indigenes of the town, were teachers with at least a Grade 2 certificate, who could communicate in English and Yoruba.

Test of Reliability and Validity:

The methods used in data collection were tested for their reliability and validity as follows:-

(1) During interviews, information supplied by the mothers were cross-checked with entries on the health cards.

(2) 20 mothers from Kulo compound (Isale Aro) and 18 mothers from Baba elegun (Ijitolo) were re-interviewed with the same questions by the author and their responses coincided with what was obtained in the actual study.

Limitations of the study:

1. Due to lack of accurate census figures, a specific value could not be given to the sample size in proportion to the total population but efforts were

made to compensate for any lack of representativeness by having a large sample.

2. Final sample size was limited to 400 due to time and financial constraints, as the house hold surveys consumed a lot of time and money.

3. The "Road to health" cards designed to serve as a complete source of information on child's medical history, were sometimes incompletely filled, giving rise to difficulties in the cross-checking of information supplied by the mother.

4. There were some short comings, due to variability in recordings by research assistants most of which were corrected during supervision.

CHAPTER FOUR

THE RESULTS

Analysis of the results of the household interviews shows the following distributions.

— Children's age: 30% of the children of mothers interviewed in the study were 0-11 months old, 33.75% between 12-23 months, 25.75% between 24-35 months, 8.5% between 36-47 months, while 2% were 48-59 months old (Table 4.01).

— Mothers' age: The age of mothers ranged from less than 20 years to 35 years, with a majority between 20-29 years. (Table 4.02)

— Ethnicity: 97.5% of the respondents were Yorubas 1.0% Fulani/Hausa, while 0.5% were Edo/Ibo (Table 4.03)

— Religion: 10.5% of the mothers were traditional protestants, such as, Anglican, Methodist and Baptist, while 12.8% were evangelical protestants (Apostolic, Gospel Faith). 22.5% were Catholics, 39.8% Moslems and 14.5% of Traditional African Faith (Table 4.04).

--- Marital Status: 2% of respondents were single, 92.9% married, 3% separated from their husbands while 2% were divorced (Table 4.05).

--- Level of education: Of the 400 mothers interviewed 76.3% had no formal education, 15.8% had primary education, 4.3% went to secondary modern school, 1.8% had secondary education while 2.0% attended teacher training school (Table 4.06).

--- Type of matrimonial home: 57% of the respondents were from monogamous families. Out of the 42.9% that came from polygamous families, 21.2% were the first wives of their husbands, 19.0% second wives and 2.7% being in the third and other position. (Table 4.07)

--- Occupation: 69.7% of the mothers were engaged in trading, 13.0% were farmers, 7.7% engaged in craftwork (e.g. Sewing, Sewing). 14.5% were housewives and 6.0% were teachers employed by local government. (Table 4.08)

--- Use of services: Out of the 400 women interviewed, 95.7% had used the clinic before, while 4.2% had not. Of the 95.7% who had used the services, 85.0% had used all services offered in form of treatment, immunization and routine examination, while 7.5% made use of only two of the services,

2.2% had used only one of the services. (Table 1.09) An analysis of non-attenders, showed that of those 17 mothers, one was not allowed by her husband, one said her child is not sick, one gave prayers as reason for non-use while the rest gave no reason. (Table 1.10).

Table 4.01 Frequency distribution of children's age

Age group of children (months)	0-11	12-23	24-35	36-47	48-59	Total
Number	120	135	103	34	8	400
%	30.0	33.75	25.75	8.5	2.0	100

Table 4.02 Frequency distribution of maternal age

Mother's Age	Less than 20 yrs	20-24 yrs.	25-29 yrs.	30-34 yrs.	35yrs plus	Total
Number	32	108	135	89	36	400
%	8.0	27.0	33.8	22.2	9.0	100

Table 4.03 Frequency distribution of mother's ethnic grouping

Ethnic group	Yoruba	Fulani/ Hausa	Edo/Ibo	Total
Number	390	6	4	400
%	97.5	1.5	1.0	100

Table 4.04 Frequency distribution of mother's religious affiliation

Religious group	Protestants (Traditional)	Protestants (Evangolical)	Catholic	Moslem	Traditional faith	Total
Number	42	51	90	159	58	400
%	10.5	12.75	22.5	39.75	14.5	100

Table 4.05 Frequency distribution of marital status

Marital Status	Single	Married	Separated	Divorced	Total
Number	8	372	12	8	400
%	2.0	93.0	3.0	2.0	100

Table 4.06 Frequency distribution of mothers level of education

Level of education	No formal education	Primary	Secondary Modern	Secondary	Teacher Training	Total
Number	305	63	17	7	8	400
%	76.25	15.75	4.25	1.75	2.0	100

Table 4.07 Frequency distribution of type of mothers matrimonial home

No. of Wives	No	%
One and only wife	228	57.0
1st wife	85	21.2
2nd wife	76	19.
3rd wife and others	11	2.8
Total	400	100

Table 4.08 Frequency distribution of mother's occupational groups

Occupational Groups	Number	%
Trading	275	68.7
Farming	52	13.0
Housewife	18	4.5
Craftwork	31	7.8
Teacher	24	6.0
Total	400	100

Table 4.09 Frequency distribution of mother's Use of services

	Number	%
All Services	314	86.8
Two Services:		
Treatment and Immunization	8	2.0
Treatment and Examination	8	2.0
Immunization and Examination	11	3.5
Subtotal	27	7.5
One Service:		
Immunization only	4	1.0
Treatment only	2	0.5
Examination only	3	0.7
Subtotal	9	2.3
Total		
Attenders	383	95.7
Non-attenders	17	4.2
Total	400	100

Table 4.10 Mother's reasons for Non-atterdance

Reasons for Non-Attendance	Number	%
Husband has not allowed it	1	5.9
Child is not sick	1	5.9
Believe in Prayers	1	5.9
No reason	14	82.3
Total	17	100

Immunization:

The immunization record of children of mothers interviewed was taken and analysis of results shows that 46.7% of these children are fully immunized, 2.0% partially immunized, (1.2% had received BCG only, 1.0% measles only) while 51.3% had received no immunization at all. It should be noted that mothers who had not made use of any service at the clinic (1.0%) are included among those who had failed to immunize their children. For the purpose of analysis, the 2.0% partially immunized children were combined with those completely immunized to give two major groups; 48.7% immunized and 51.3% not immunized. (Table 4.11)

The following independent variables were used to determine those factors influencing use of this service

- Age of mother
- Occupation
- Education
- Mother's status in the family
- Source of advice
- Health belief
- Health knowledge

Table 4.11 Frequency Distribution of Children's Immunological Status

Immunological Status	Number	%
No Immunization	205	51.3
Completely Immunized	186	46.5
Partially Immunized:		
B. C. G. only	5	1.2
Measles only	4	1.0
Total	400	100

7 hypotheses were developed (as previously stated) to determine whether or not a statistically significant relationship exists between these variables and immunization.

The hypothesis that

mothers of different age groups

show different response to immunization

was accepted. Table 4.12 shows the association, (X^2=12.938, d.f = 4 P<0.025) between maternal age and immunization. Mothers between the ages 20-24 years are more likely to use immunization services as 60% of them have a child immunized. Mothers between the age group 30 - 34 years, show a greater tendency not to use this service, (65% have no child immunized).

There is no association between occupation and immunization, thus the hypothesis that,

there is a difference in the response of mothers of different occupational groups to immunization

was rejected. Table 4.13 shows that no occupational group was more likely to have their child immunized than others (X^2 = 1.389, d.f. = 4, P>0.80).

Another hypothesis that was rejected is that,

mothers of different educational back-

ground show different response to

Table 4.12 The Distribution of mother's age groups according to their acceptance of childhood immunization

Mother's age	Immunized	Not Immunized	Total
Less than 20 years	14	18	32
20 - 24 years	65	43	108
25 - 29 years	67	68	135
30 - 34 years	31	58	89
35 years plus	18	18	36
T O T A L	195	205	400

χ^2 = 12.938 d.f. = 4, P < 0.025

Table 4.13 Distribution of the different occupational groups according to mother's acceptance of childhood Immunization

MOTHER'S OCCUPATIONAL GROUPS	IMMUNIZED	NOT IMMUNIZED	TOTAL
House wife	9	9	18
Farming	25	27	52
Trading	133	142	275
Teaching	10	14	24
Craftwork	18	13	31
T O T A L	195	205	400

X^2 = (illegible) d.f. = 4. P > 0.80

childhood immunization.

Table 4.14 (X^2 = 4.297 d.f. = 2 P> 0.10) shows that among the mothers in this community lack of education does not deter mothers from getting their child immunized just as education does not encourage mothers to immunize their child. Since those mothers with more than primary education make up only 8% of the sample, and those with Primary education 15.8%, thus, only limited generalization can be made.

There is an association between, mothers status in the family and her response to immunization of her child.

Table 4.15, shows that (X^2 = 9.251, d.f. = 2 P> 0.01). Within a polygamous family an association exists in the position of the mother among other wives and her response to immunization. The data shows that, first wives in polygamous homes are less likely to have their children immunized than either subsequent wives or wives in monogamous homes.

The hypothesis that,

there is an association between mother's usual source of advice and her response to immunization,

Table 4.14 Distribution of acceptance of childhood immunization according to mother's educational level

Educational Level	Immunized	Not Immunized	Total
No formal Education	154	151	305
Primary	31	32	63
Secondary Modern and above	10	22	32
T O T A L	195	205	400

$X^2 = 4.297$, d.f. = 2 $P > 0.10$

Table 4.15 Distribution of acceptance of childhood immunization according to mother's status in the family

Mother's status in the family	Immunized	Not Immunized	Total
Only Wife	120	108	228
First Wife	29	56	85
Subsequent Wife	46	41	87
T O T A L	195	205	400

$\chi^2 = 9.251$, d.f. = 2, $P<0.01$

Table 4.15 Distribution of acceptance of childhood immunization according to mother's status in the family

Mother's status in the family	Immunized	Not Immunized	Total
Only Wife	120	108	228
First Wife	29	56	85
Subsequent Wife	46	41	87
T O T A L	195	205	400

$\chi^2 = 9.251$, d.f. = 2, $P < 0.01$

was accepted. As shown on table 1.16 (X^2 = 37.811, d.f. = 4 P<0.0005) mothers who usually seek the advice of their husband and health workers have the highest percentage of immunized children, 61.5%, and 56.5% respectively. Those whose advisers are relatives and friends, failed to immunize 71.4%, and 74.3% of their children respectively. A question was set to determine the beliefs mothers have of the usual cause of illness in children of this age group. The responses were grouped into four, table 1.17 shows that 45.3% have scientifically valid beliefs, 0.9% have supernatural beliefs, while 10.3% have other beliefs. 43.5% of the mothers did not express any particular belief.

These beliefs were used to assess the hypothesis that

> an association exists between mothers belief of the usual cause of her child's illnesses and her responses to immunization. This was accepted. Table 1.18 shows the significant relationship (X^2 = 12.051 d.f. = 3 P<0.005). Those mothers whose beliefs are scientifically valid have 58% of their children immunised, those with supernatural and other types of beliefs 46.7%, while those with no particular belief have 39.6% of their

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Table 4.16 Distribution of mother's usual adviser according to their acceptance of childhood immunization

Usual adviser	Immunized	Not Immunized	Total
Husband	91	57	148
Health Workers	70	54	124
Friends	8	20	28
Relatives	19	55	74
No particular person	7	19	26
T O T A L	195	205	400

X^2 = 37.011 d.f. = 4, P<0.0005

Table 4.16 Distribution of mother's usual adviser according to their acceptance of childhood immunization

Usual adviser	Immunized	Not Immunized	Total
Husband	91	57	148
Health Workers	70	54	124
Friends	8	20	28
Relatives	19	55	74
No particular person	7	19	26
T O T A L	195	205	400

χ^2 = 37.811, d.f. = 4, P<0.0005

Table 4.17 Distribution of mother's beliefs of cause of childhood illnesses

Beliefs in usual cause of child's illness		Total Number	%
Scientifically Valid:			
Named causes include:	Infection	47	11.8
	Mosquitoes	28	7.0
	Poor care/diet	37	9.2
	Teething problem	69	17.3
Supernatural:			
	Evil spirits	3	0.7
	God's wish	1	0.2
Other types of beliefs	Too much palm oil	6	1.5
	Change of weather	24	6.0
	Children naturally fall ill	11	2.8
No particular beliefs		174	43.5
TOTALS		400	100

Table 4.18 Distribution of mother's health beliefs according to their acceptance of immunization

Belief in Usual cause of illness	Immunized	Not Immunized	Total
Scientifically Valid	105	76	181
Supernatural and others	21	24	45
None	69	105	174
T O T A L	195	205	400

$\chi^2 = 12.051$, d.f. = 3, $P < 0.005$

children immunized.

The hypothesis that,

an association exists between mothers health knowledge and immunization

was assessed in three ways, based on mothers knowledge of the cause, treatment and prevention of measles, one of the diseases covered by the immunization programme and with the highest prevalence rate according to mothers reports (Table 4.19). There was a highly significant association between mothers knowledge of the cause of measles and immunization against measles. As shown on table 4.20 (χ^2 = 13.8 with d.f. = 2 P 0.0005) 81.8% of women who held correct notion of causation of

Table 4.13 Prevalence of diseases covered by immunization among the children as reported by mothers

Names of Diseases	Number	%
Tuberculosis	16	4.0
Measles	211	52.7
Whooping Cough	10	2.5
Diptheria	0	0.0
Tetanus	0	0.0
Polio	4	1.0
Total affected	241	60.2

Table 4.20 Knowledge of measles causation according to mother's acceptance of childhood immunisation against measles.

Immunological Status	Knowledge of diseases causation			Total
	Correct	Incorrect	No Idea	
Immunized against measles	27	137	26	190
Not immunized against measles	6	157	47	210
T O T A L	33	294	73	400

$\chi^2 = 19.814$, d.f. = 2 . P $\leq$ 0.0005

measles (germs) immunized their children against measles. 46.6% of children of mothers with wrong notion of causation were immunized, while only 35.6% of children of those with no idea of causation were immunized.

There is also an association between mothers preferred treatment method and immunization. Table 4.21 (χ^2 = 19.212 d.f. = 4 $P < 0.005$ shows that 51.3% of mothers who preferably use modern drugs for treatment, immunized their children against measles; 47.4% of those who use other methods also immunized their children. Some mothers (12.8%) relate immunization to the treatment of measles and 47.1% of their children were immunized. Mothers who used traditional drugs to treat measles had the lowest percentage of children immunized (33.7%). Use of prayers for treating measles was not a barrier to immunization as these group of mothers have 73.3% of their children immunized against measles.

A significant relationship was also revealed in the link between mothers knowledge of preventive methods and immunization against measles. Table 4.22 showed that (χ^2 = 23.869, d.f. = 4, $P < 0.0005$). Knowledge of immunization as a preventive method had a promotive effect on mothers acceptance of immunization against measles: 51.1% of this group of women immunized their

Table 4.21 Preferred treatment methods for measles according to mothers acceptance of childhood immunization against measles

Immunological status	Treatment methods					
	Herbal/ Traditional drugs	Modern drugs	Immunization	Prayers	Others	Total
Immunized against measles	31	101	21	22	9	190
Not immunized against measles	67	98	27	8	10	210
TOTAL	98	202	51	30	19	400

$\chi^2 = 19.212$, d.f. = 4, $P < 0.005$

Table 4.22 Distribution of preventive methods according to mothers acceptance of childhood immunization against measles

Immunological status	Preventive Methods					
	Local herbs and soaps	Immunization	Prayers	Modern drugs	No particular prevention	Total
Immunized against measles	56	11	14	71	38	190
Not immunized against measles	99	7	7	43	54	210
Total	155	18	21	114	92	400

χ^2 = 23.869, d.f. = 4, $P < 0.0005$

children. In addition, those mothers who use prayers and modern drugs for prevention had high percentages of immunized children (66.7%, 62.3% respectively). The use of local herbs and soaps to prevent measles had a negative effect on acceptance of immunization against measles. Only 36.1% of the children of the group of mothers employing this method were immunized.

Clinic attendance:-

The attendance record of these same children, for the purpose of routine examination was also taken. It is assumed that a mother should make one visit per month for the purpose of routine examination. The percentage attendance was thus calculated as

$$\% \text{ attendance} = \frac{\text{No of visits for routine exam.}}{\text{total no of expected visits from 1st date of registration.}}$$

Table 4.23 is a breakdown of the attendance rate and this is illustrated in Fig. 7. 45% of the mothers recorded an attendance rate of over 50%

The following variables were used to determine those factors that affect mother's attendance for health supervision.

---- child's age

---- maternal age

---- religion

---- education

---- occupation

---- type of family

---- mothers usual adviser

Table 4.23 Frequency of percentage clinic attendance

Percentage Attendance Rate	Number of Mothers	%
0 - 9	50	12.5
10 - 19	28	7.0
20 - 29	35	8.75
30 - 39	45	11.25
40 - 49	62	15.5
50 - 59	41	10.25
60 - 69	37	9.25
70 - 79	44	11.0
80 - 89	12	3.0
90 - 100	46	11.5
Total	400	100

FIG.7. BAR DIAGRAM SHOWING FREQUENC

DISTRIBUTION OF PERCENTAGE CLINIC ATTENDANCE FOR HEALTH SUPERVISION

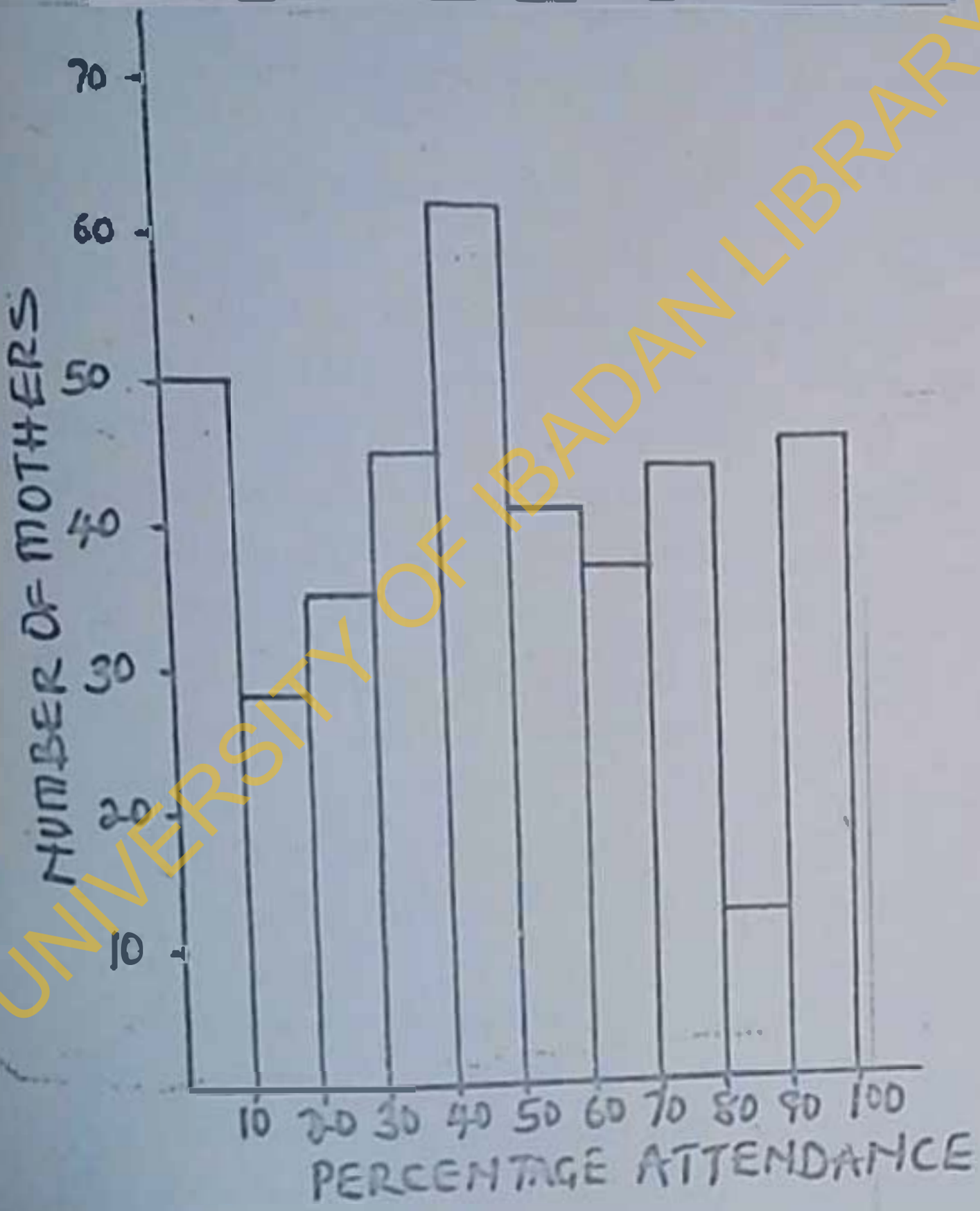
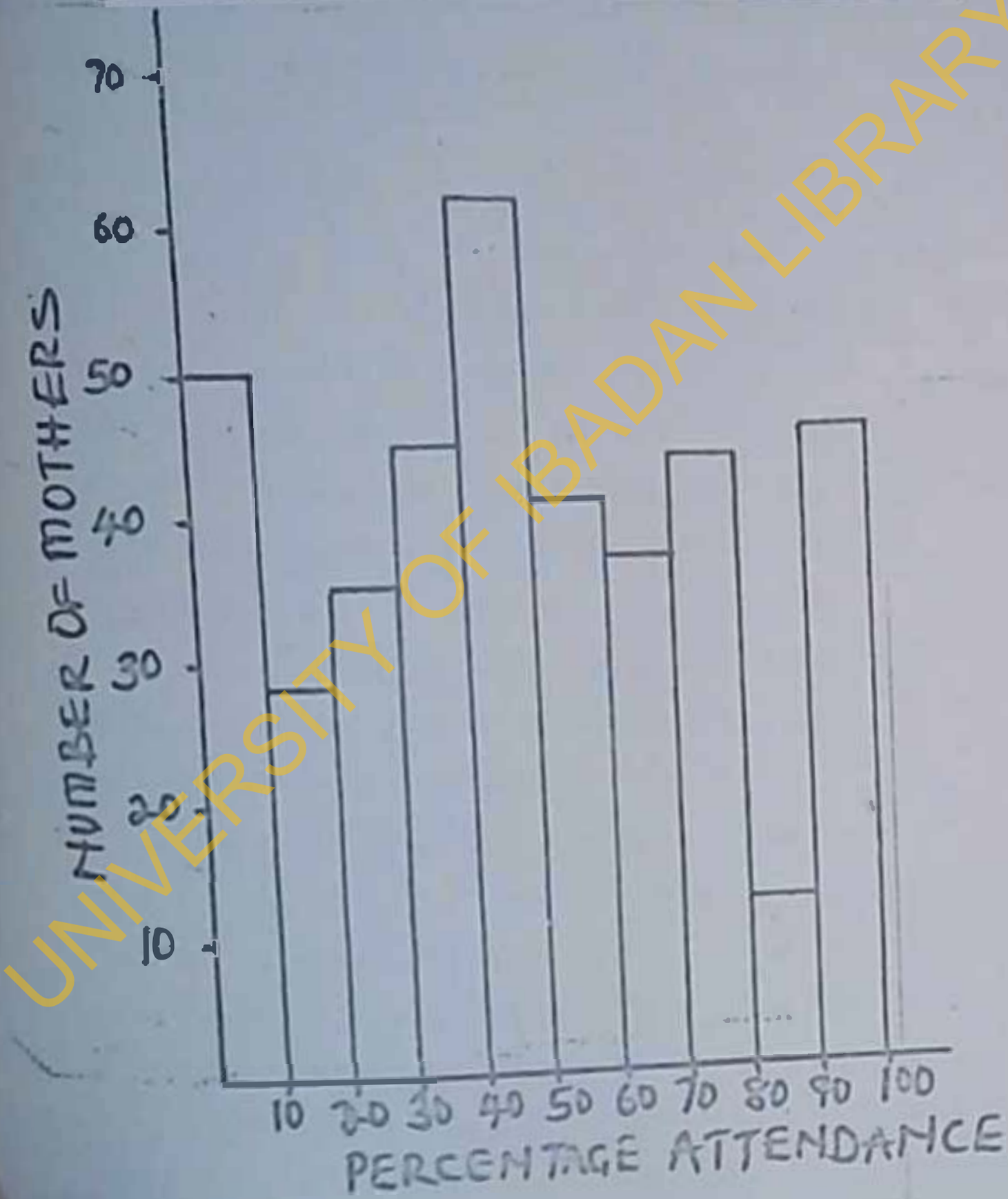


FIG. 7. BAR DIAGRAM SHOWING FREQUENCY DISTRIBUTION OF PERCENTAGE CLINIC ATTENDANCE FOR HEALTH SUPERVISION



---- cooperation from husband & kin

---- health knowledge

9 hypotheses were developed to assess the extent of association between these variables and clinic attendance.

The hypothesis that

the age of the child determines

the pattern of attendance exhibited was accepted. Table 4.24 shows the association between the child's age and attendance. (χ^2 = 26.184, d.f. = 3, P<0.0005. Attendance is generally poor, but showed marked decline with age of child. Children between 0-11 months have 63.3% of their attendance above 50%. This drops to 58.5% for those children between 12-23 months, 41.7% for those 24-35 months old, and 23.8% for those older than 35 months.

There was no significant association between maternal age and child attendance as shown on table 4.25 (χ^2 = 6.515, d.f. = 4, P>0.10). However, mothers between ages 20-24, and 25-29 years were generally present more often at clinics (51.6%, 57.7%), while those less than 20 years and more than 35 years were more often absent.

Religion was found to be associated with attendance

Table 4.24 Distribution of clinic attendance for health supervision according to the age of the child

Age group (months)	Percentage Attendance		Total
	0-49%	50-100%	
0-11	44	76	120
12-23	56	79	135
24-35	60	43	103
36-59	32	10	42
Total	192	208	400

$X^2 = 26.184$, d.f. = 3, $P < 0.0005$

Table 4.25 Distribution of mothers age groups according to their clinic attendance for health supervision

Mother's Age (Years)	Percentage Attendance		Total
	0 - 49%	50 - 100%	
Less than 20	20	12	32
20-24	49	59	108
25-29	57	78	135
30-34	45	44	89
35 and over	21	15	36
Total	192	208	400

X^2 = [illegible], d.f. = 4, $P > 0.10$

as shown on table 4.26 (X^2 = 12.59, d.f. = 4, P<0.025) the hypothesis that

> mothers of different religious affiliation show different modes of clinic attendance, was accepted. Mothers who are Catholics and Moslems had clinic attendances of 63.3% and 54.7% respectively. On the contrary, those respondents who are traditional protestants have only 31.0% of their attendance above 50%. This was 44.8% for traditional faith and 49% for evangelical protestants.

Mothers with different educational background, do exhibit different patterns of clinic attendance. This association is shown on table 4.27 (X^2 = 16.755, d.f. = 2, P<0.0005). Respondents with no formal education attend the clinic more often than others, while those mothers with primary education and above had 65.4% of their attendances below the 49% mark, however, this group constitute only 23.8% of the sample.

There was no significant relationship between maternal occupation and the child's clinic attendance. Table 4.28 shown that, (X^2 = 4.73, d.f. = 4, P>0.50) there was no great diversity in the attendance of mothers within these occupational groups.

Table 4.26 Distribution of the different religious denominations according to mothers clinic attendance for health supervision

Religious Denomination	Percentage Attendance		Total
	0-19%	50-100%	
Traditional Protestant	29	13	42
Evangelical Protestant	26	25	51
Catholic	33	57	90
Moslem	72	87	159
Traditional Faith	32	26	58
Total	192	208	400

$X^2 = 12.59$, d.f. = 4, $P < 0.025$

Table 4.27 Distribution of clinic attendance for health supervision among mothers of different educational level

Educational Level	Percentage Attendance		Total
	0-49%	50-100%	
No formal Education	129	176	305
Primary	42	21	63
Secondary Modern and above	21	11	32
Total	192	208	400

$X^2 = 16.755$, d.f. = 2, $P < 0.0005$

Table 4.28 Distribution of the different occupational groups according to mothers clinic attendance for health supervision

Occupational Groups	Percentage Attendance		Total
	0-49%	50-100%	
House wife	10	8	18
Farming	22	30	52
Trading	127	148	275
Teacher	15	9	24
Craftwork	18	13	31
Total	192	208	400

$X^2 = 4.73$, d.f. = 4, $P > 0.50$

The hypothesis that

the type of matrimonial home a mother comes from determines her mode of clinic attendance was rejected. Table 4.29 shows that there was no great disparity between the attendance of mothers from monogamous and polygamous families. However within the polygamous family, mothers who are 3rd or subsequent wives showed a tendency of not attending the clinic.

The influence of the family and social network was assessed in two ways, based on the mother's usual adviser in crisis periods, and the cooperation received from her husband when the child falls ill. A significant association exists between mothers clinic attendance and the person she normally seeks advice from. Table 4.30 shows that, (K^2 = 17.367, d.f. = 4, $P < 0.005$) mothers who received advice from health workers do attend the clinic more often than others, with 61.3% of their attendances above 50%. The lowest attendances are recorded for those respondents who take advice from relatives (33.8%).

The form of cooperation received from the husband, significantly affects clinic attendance. Table 4.31

Table 4.29 Distribution of clinic attendance for health supervision according to the type of matrimonial home

Number of husbands wives	Percentage attendance		Total
	0-49	50-100%	
1 wife	113	115	228
2 wives	62	82	144
3 or more wives	17	11	28
Total	192	208	400

$X^2 = 3.011$, d.f. = 2. $P > 0.20$

Table 4.30 Distribution of clinic attendance for health supervision according to mothers usual adviser

Mothers usual adviser	Percentage Attendance		Total
	0-49%	50-100%	
Husband	73	75	148
Health Workers	48	76	124
Friends	14	14	28
Relatives	49	25	74
No particular person	8	18	26
Total	192	208	400

$X^2 = 17.367$, d.f. = 4, $P < 0.005$

Table 4.31 Distribution of clinic attendance for health supervision according to form of cooperation received from husband

Form of Cooperation	Percentage Attendance		Total
Takes child to the clinic	120	145	265
Buy drugs	40	22	62
Prepares local herbs	8	10	18
Gives no help/ does not care	24	31	55
Total	192	208	400

$r^2 = 8.069$, d.f. = 3, $P < 0.10$

shows this association (X^2 = 8.059, d.f. = 3, P 0.10) Mothers whose husbands either takes the child to the clinic, prepares local herbs or gives no help at all show a higher tendency of attending more often than those whose husband buys drugs for the child. These have 54.7% of attendances above 50% as opposed to the later group with 35.4%.

This shows the tendency of some mothers to combine both traditional and modern health care services, and also that the process of buying drugs circumvents the system, while making of home made drugs does not. In addition, respondents who receive no cooperation from their husband also show a high attendance rate of 56.4%.

This supports the findings in table 4.17 that mothers who have nobody to advice them do attend clinic often.

The hypothesis that,

> mother's opinion of the suitability of time spent at the clinic determines her pattern of attendance

was accepted. Table 4.32 shows this association. (χ^2 = 30.508, d.f. = 1, P 0.0005). Those mothers who felt that too much time was spent at the clinic, had constituted 34.7% of the sample. Their low clinic attendance is a reflection of their discontent. (33.1% had attendances above 4%). Those who felt the time was adequate made up 65.3% of the sample, with an attendance of 62.0%

The hypothesis that,

> mother's pattern of clinic attendance for health supervision is determined by her health knowledge,

was assessed by scoring mothers knowledge of the cause, treatment, and prevention of 8 childhood diseases. The answers were given a score of one each. Table 4.33 shows the association between health knowledge and attendance for health supervision (χ^2 = 7.177, d.f. = 1, P 0.01) Of the total sample only 10.7% had knowledge scores over 50% out of which 71.4% had attendances above the 4% mark. 89.3% scored less

Table 4.32 Suitability of time spent at the clinic according to mother's attendance for health supervision

Time suitability	Percentage Attendance			Total
	0-49%	50-100%		
Too long	93	46		139
Adequate	99	162		261
Total	192	208		400

χ^2 = 30.508, d.f. = 1, $P<0.0005$

Table 4.33 Knowledge scores according to mothers attendance for health supervision

Percentage attendance	Knowledge scores		Total
	Less than 50%	50% and over	
0 - 4%	180	12	192
50 - 100%	178	30	208
Total	358	42	400

$\chi^2 = 7.117$. d.f. = 1. $P < 0.01$

than 50% of which only 49.7% had attendances above 4%. This points to the fact that attendance promotes knowledge, especially in this case when most are illitrates.

Some open ended questions were set to determine mothers assessment of the present services. Direct criticisms of the clinic and its staff could not be evoked, however the following were identified.

Most useful activities:-

to get a view of what the attending mothers appreciated most at the clinic, a question on this was included. Table 4.34 shows the distribution. Of the five services provided 62.5% found free medicine most useful as first shown. 43.3% found immunization most useful as a second choice. Health talks were rated last as a first choice and 3rd as a second choice.

Improvement of services:-

On what clinic activities they would like continued, singing and dancing, an activity which accompanies the health talks, had the highest vote of 33.6%, health talks 16.0% and routine weighing 12.2%. Table 4.35 shows the distribution.

Table 4.34 Clinic activities most useful to mothers

	1st Choice		2nd Choice	
	No.	%	No.	%
Free Medicine	250	62.5	5	1.3
Routine Weighing	87	21.8	69	17.3
Clinical Examination	32	8.0	53	13.3
Immunisation	12	3.0	193	48.3
Health talks	0	0.0	60	15.0
No particular choice	19	4.7	19	4.8
Total	400	100	400	100

Table 4.34 Clinic activities most useful to mothers

	1st Choice		2nd Choice	
	No.	%	No.	%
Free Medicine	250	62.5	5	1.3
Routine Weighing	87	21.8	69	17.3
Clinical Examination	32	8.0	53	13.3
Immunisation	12	3.0	193	48.3
Health talks	0	0.0	60	15.0
No particular choice	19	4.7	19	4.8
Total	400	100	400	100

Table 4.35 Suggested clinic services to be continued

Services to be continued	Number	%
Free medicine	42	10.5
Immunisation	32	8.0
Health talks	64	16.0
Singing and dancing	135	33.8
Food demonstration	5	1.3
Routine weighing	49	12.2
All services	73	18.2
Total	400	100.0

On which services they would like improved, 26% wanted health talks improved, 17.8% wanted more health staff while 16% wanted more drugs. Table 4.36 shows the distribution.

On which services they would like improved, 26% wanted health talks improved, 17.8% wanted more health staff while 16% wanted more drugs. Table 4.36 shows the distribution.

Table 4.36 Suggested services for improvement

Services to be improved	Number	%
More health staff	71	17.8
Water	13	3.2
Electricity	30	7.5
Chairs	6	1.5
More drugs	64	16.0
Immunisation	16	4.0
Clinical Examination	36	9.0
Health talks	104	26.0
All services	60	15.0
Total	400	100.0

CHAPTER FIVE

DISCUSSION

The utilisation pattern revealed is a result of certain antecedent factors which could be examined in two perspectives.

Immunization:

This consists of those mothers (48.3%) who had a child immunized and mothers (51.7%) with no child immunized. Factors identified to exert an influence on the use of this service are maternal age, mothers usual advisers, health belief and health knowledge.

The persistence of health beliefs exert some limiting effect on child immunization. It was found that mothers whose beliefs were scientifically valid immunized 58.8% of their children. Comparatively, those with other types of beliefs (46.7%) and no particular belief (39.7%). Positive beliefs in this case favoured positive actions. The tendency of those respondents who hold other types of beliefs not consistent with modern therapy to go for modern care portrays that people's actions may not always be consistent with their beliefs as they are psychologically disposed towards a positive step. Action

will always be preceeded by a resolution of conflict arising from a situation or problem. Respondents with no particular belief are in this case uncertain as to what steps to take.

The association between respondents knowledge of the cause, treatment, and prevention of measles and immunization showed that only 8.2% have the correct idea of the cause of measles, out of which 81.8% immunized their children. 91.7% have incorrect or no notion of the cause and only 44.4% of their children were immunized. The negative effect of poor health knowledge on the use of this service is made more evident in that only 4.5% relate immunization to prevention. The majority do not see the need for immunizing a healthy child, while a few (12.5%) take immunization as a means of treating measles. It is thus obvious that a mother with little or no knowledge of the reasons for immunization is not motivated to use this service and until the adequate amount of knowledge is provided through health education the service will continue to be underutilised.

Maternal age also had an effect on immunization. Mothers aged 20-24 years had the highest percentage of immunized children (60%), with some decrease as the mothers age increased. A similar pattern was

shown by mothers who used a well-baby clinic in Taiwan (Young, 1966) and health services in Colombia (Selwyn, 1978). Evidently, more younger mothers with younger children utilised the available services more than others within the child bearing age, possibly due to the greater interest most women show in the care of their first children. This reduces with subsequent children and increase in age of the mothers. However the last child of older mothers tend to be pampered, thus an increase in care is expected from this group of women.

Husbands, health workers, relatives and friends were identified to exert some re-inforcement on respondents use of services. In this paternalistic society, all important decisions would be made by the husband who also serves as a major source of information. 25.5% of the mothers heard about the clinic from their husbands while 23.0% heard from health workers. 15.8% of respondents registered at the clinic due to the encouragement received from their husbands while 11.0% were encouraged by health workers and 15.5% by relatives.

In decisions affecting the child's health, 37.0% of respondents seek the advice of their husbands out of which 61.5% have a child immunized, 31.0% are advised by health workers out of which 56.5% are immunized. On the contrary, of the 25.5% advised by friends and relatives 26.5% immunized their child. It is evident that the positive reinforcement received from the husband and health workers increase use of immunization services. This emphasis on the decision making role of the husband was similarly expressed by Bornstein and Kreysler (1972) and Banisaiye (unpublished).

Health supervision:

Respondents attendance for health supervision fall into two groups, 48.0% with attendances below the 50% mark, and 52.8% with attendances above. This pattern was a result of the interaction of factors which include the child's age, mothers usual adviser, health knowledge, cooperation from husband and duration of clinic activities.

The age of the child significantly determined the rate of attendance of the mother. Results showed that attendance decreased with age of the child, from 60.8% for those children 0-23 months old to 36.6% for those 24-59 months old. This disparity in atten-

dence is of note as morbidity resulting from the synergism between infection and malnutrition, is common as from the second year of life. This is due to deficiencies in diet and reduction of mothers care and attention by the birth of another child. Older children are usually sent to live with mothers-in-law or older relatives who most often do not bring the child to the clinic unless it is sick.

The influence of the husband and health workers is also evident in the mothers clinic attendance. It was observed that 50.7% of mothers advised by their husband had attendances above average, similarly with 51.3% of those advised by health workers. This confirms the view that health workers are influential in getting mothers to make use of clinic services, and this is strongly favoured by the time at which the advice is given. Mothers are usually receptive to advice at times of crisis when the health workers may be sought. Contrarily, only 38.2% of those advised by relatives and friends had attendances above 50%. It is also evident that mother's own determination favours utilisation. (69.2% of this group of mothers had attendances above average).

The extent of cooperation received from significant members of the family, in this case the husbands, also had a reinforcing effect on mother's utilisation behaviour. 54.7% of those respondents whose husband cooperates in taking the child to the clinic during sick periods had attendances above average. When the cooperation is in form of purchase of drugs or preparation of local herbs, the attendance drops to 40%. In cases where the husband does not care, there was no threat to the mother's clinic attendance, which is believed to be high due to the mother's self determination to seek help for her child.

The positive association between mothers knowledge of diseases and their prevention and the use of preventive services further supports the view that a mother needs to know the need to seek regular health supervision in addition to immunization of their child, and the benefits to be derived therefrom. Thomson (1962) expressed the view that the degree of mother's benefit varies with her knowledge, among other factors. Regular attendance favours a child's likelihood of benefitting from services provided. However, for consumers to appreciate these services, they need to understand the health needs of the child and that when these needs are met, the child's health improves.

Factors which facilitate use of services such as the availability and accessibility of facilities, personnel, time spent are capable of resulting in behavioural problems. Cost of services was not a limiting factor as services are provided free. The time spent at the clinic however, had a reducing effect on the attendance of those mothers (34.8%) who felt it was too long. This conception is a result of two practices; mothers who come early to the clinic often wait for some time for others to arrive, during which no attention is given to them. The weighing of a considerable large number of children after the health talks when all the mothers are there, then becomes very taxing for the clinic staff, thus increasing the period of time this activity should take. There is then, the tendency to cut down on the time allocated for other activities such as examination of the child and counselling of the mother and in a way promoting dissatisfaction. The mothers choice of beneficial activities at the clinic highlights the inadequacies of the provided services. Free medicine was chosen by a large segment of consumers (62.5%) as a first choice, and immunisation by 48.2% as a second choice. These two activities are regarded

as essential for the treatment of most disease conditions and normal activities of a clinic. Health education was chosen by only 15.0% of consumers. This shows the little importance mothers attach to it. As was similarly expressed by Bornstein and Kreysler (1972), health education had no special attraction for mothers using the pre-school clinic in Tanzania who valued free medicine and food supplements. In this community the singing and dancing that goes along with health talks is more appreciated by 33.6% of respondents who want this continued, probably due to the socialising effect of this activity.

Implications for Health Education

It is evident from the foro-going discussion, that educational interventions are needed for reducing deficiencies in the current pre-school programme, based on the assumption that beneficial health behaviour would result from a planned, consistent, integrated, continuum of educational imputs.

3 major target groups have been identified

- primary group which consists of those mothers of child bearing age who are served by this health services
- an intermodiate group comprising of those social reinforcers; the husband, relatives and friends, who influence health behaviour
- another intermodiate group comprising of traditional herbalists, faith healers, modern health providers and policy makers, who control the needed resources.

for the effectiveness and success of any interventions planned, it is of considerable importance to include the participation of representatives from these

target groups in the setting of priorities, determination of acceptable approaches, identification of indigeneous resources and programme evaluation thereby gaining their personal commitment to programme success.

The persistence of mother's health beliefs and inadequate health knowledge were found to inhibit the maximal use of available services. A review of communication methods is necessary, as well as involvement of mothers in the planning and implementation of health talks, to reduce their present role of spectators. Communication methods such as role playing, demonstrations, individual counselling, small group discussions could be employed. Good use should be made of the socialising effect of coming to the clinic where many mothers converge, with singing and dancing as a way of generating social interaction, cohesiveness and active participation. The provision of more beneficial activities such as home economics and nutrition education, which would incorporate skill development methods and imparting of health knowledge would go a long way to make services more attractive to the mothers.

Acceptance and reinforcement for desired health practices could be developed through the intermediate targets of

_____ husband, relatives and friends

_____ traditional herbalists and faith healers

_____ health providers and policy makers.

The supportive role of the husband and health workers should be encouraged. The involvement of fathers in clinic programmes is essential due to their role in decision-making. Organisation of a father's club has been effective in many communities. If set up at the clinic it will provide an avenue for enlightening those fathers whose desire for improved health of the child sometimes results in harm.

The existing social, religious and trading organisations particularly women groups, should be utilized in imparting health knowledge. Organisation of activities such as "health week" and "open house" would aid in enlightenment of the community on the available services in the clinic, and involve them in health education activities.

There is the need to recognise and involve traditional herbalist and faith healers in the pre-school programme. It is essential to utilise their impact and relationship with the primary targets, since they form a second source of health care to these mothers.

To facilitate an increase in utilisation will involve the commitment of health agency resources to community organization efforts to improve on the available facilities at the clinic. Through communal efforts, shelters should be provided under which mothers could receive health talks. There is the need to design and monitor a participant oriented service through

- a more comprehensive supervision of the child's health that will involve early detection of physical and mental defects.
- the maintenance of an 'at risk' register with record of attenders and drop outs in order to monitor those children needing most attention.

_____ re-organization of clinic schedule to reduce on the time spent. A considerable reduction would be achieved through the weighing and registration of children immediately on arrival.

_____ investigation of the possibility of providing immunization facilities at the clinic.

The pre-school health service should be made more accessible to the community through outreach programmes such as the training of family visitors to carry out home visiting.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

The findings in the present study indicate that the underutilisation of the pre-school children's health services at Igangan is due to a number of demographic, social and psychological variables prominent among which are age of the child, maternal age, religion, mother's health knowledge and beliefs, influence of significant members of the family and health providers.

The attendance rate is fairly high and cuts across these variables, but disparity occurs in acceptance of immunization in which case fewer mothers than the number attending clinics accept immunization for their children. This suggest that the clinic is being used more for curative or treatment purposes, that is, when babies are sick than for preventive purposes e.g. obtaining immunization.

Health education activities at the clinic are poorly rated by consumers and there is poor community participation and involvement in the programme.

In order to satisfy some of the needs which have been found lacking, these suggestions are made:-

(1) Provision of a comfortable waiting area for mothers on clinic days through community effort.

(2) The reorganisation of services to include examination for physical and mental defects in these group of children.

(3) Improved health supervision through the provision of an "at risk" register, and criteria for special care.

(4) The provision of nutrition and home-economics classes as part of the activities of the programme.

(5) The organisation of a father's club as part of efforts to maximise on their influence on their wives.

(6) Establishment of a health education post at the local government level, which, will be assigned the responsibility and co-ordination of health education activities in the various health units.

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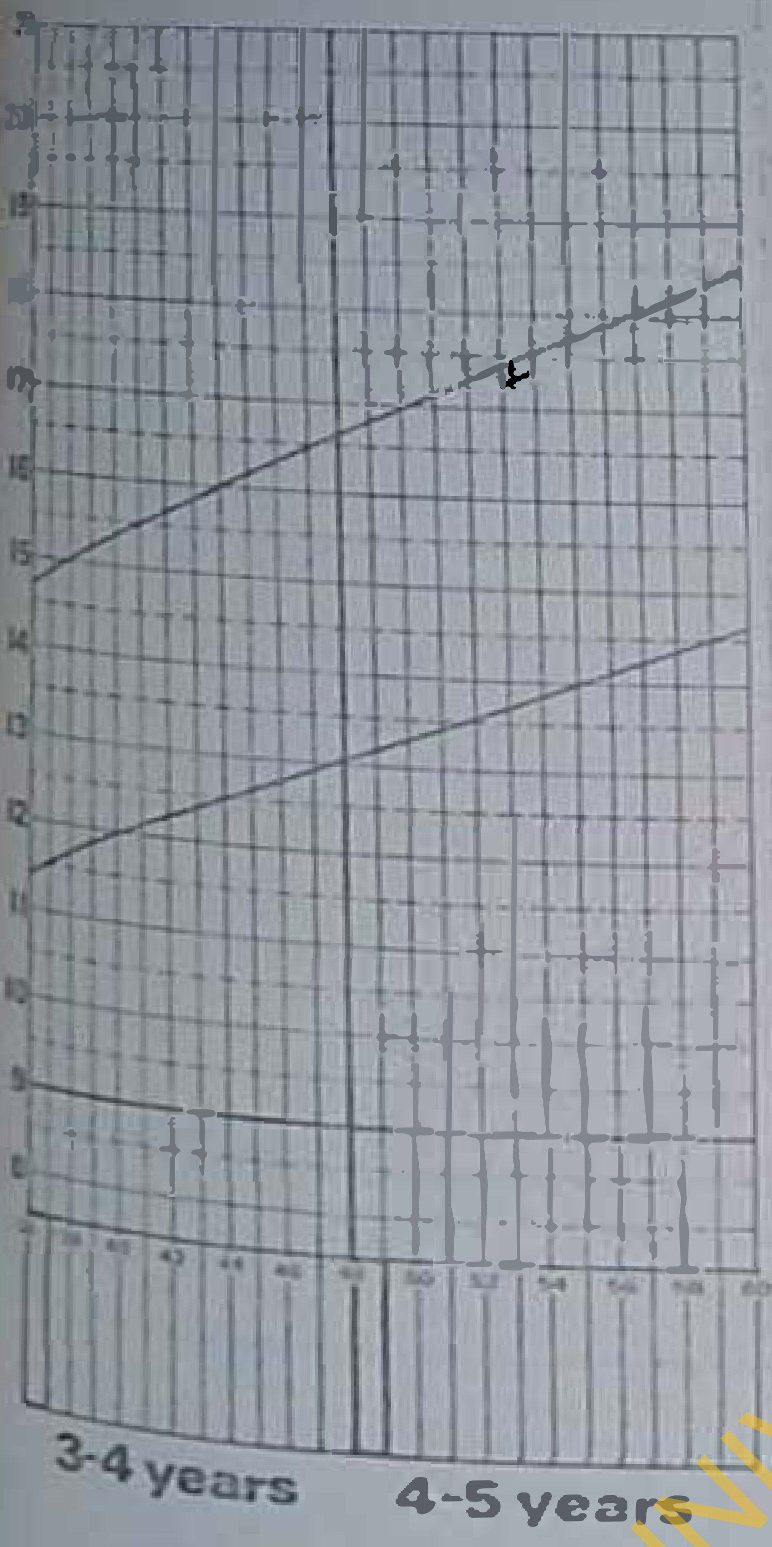
APPENDIX I



IBARAPA

Community Health Programme

MATERNAL AND CHILD HEALTH UNIT

PRE-SCHOOL HEALTH CARD

CLINIC	CHILD'S No.
NAME	SEX
MOTHER'S NAME	REGISTRATION No.
FATHER'S NAME	REGISTRATION No.
DATE FIRST SEEN	BIRTHDAY
WHERE THE FAMILY LIVE	

BROTHERS AND SISTERS

Year of birth	Sex	[illegible]	OTHER REMARKS

DELIVERY RECORDS

Booked/Unbooked
Place of birth
Birth Weight
Character of Confinement

Mother's Occupation

Father's Occupation

VACCINATIONS

ANTI-TUBERCULOSIS IMMUNISATION

Date of BCG immunisation _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

(BCG can be given immediately after b

SMALLPOX IMMUNISATION

Date of immunisation _ _ _ _ _ _ _ _ _

Date of scar inspection _ _ _ _ _ _ _ _

Date of re-immunisation _ _ _ _ _ _ _ _

POLIOMYELITIS IMMUNISATION

Date of first immunisation _ _ _ _ _ _ _

Date of second immunisation _ _ _ _ _ _ _

Date of third immunisation _ _ _ _ _ _ _

WHOOPING COUGH, TETANUS & DIPHTHERIA IMMUNISATION

Date of first injection _ _ _ _ _ _ _ _

Date of second injection _ _ _ _ _ _ _

Date of third injection _ _ _ _ _ _ _

MEASLES IMMUNISATION

Date of immunisation _ _ _ _ _ _ _ _ _

BOOSTER DOSES

APPENDIX I

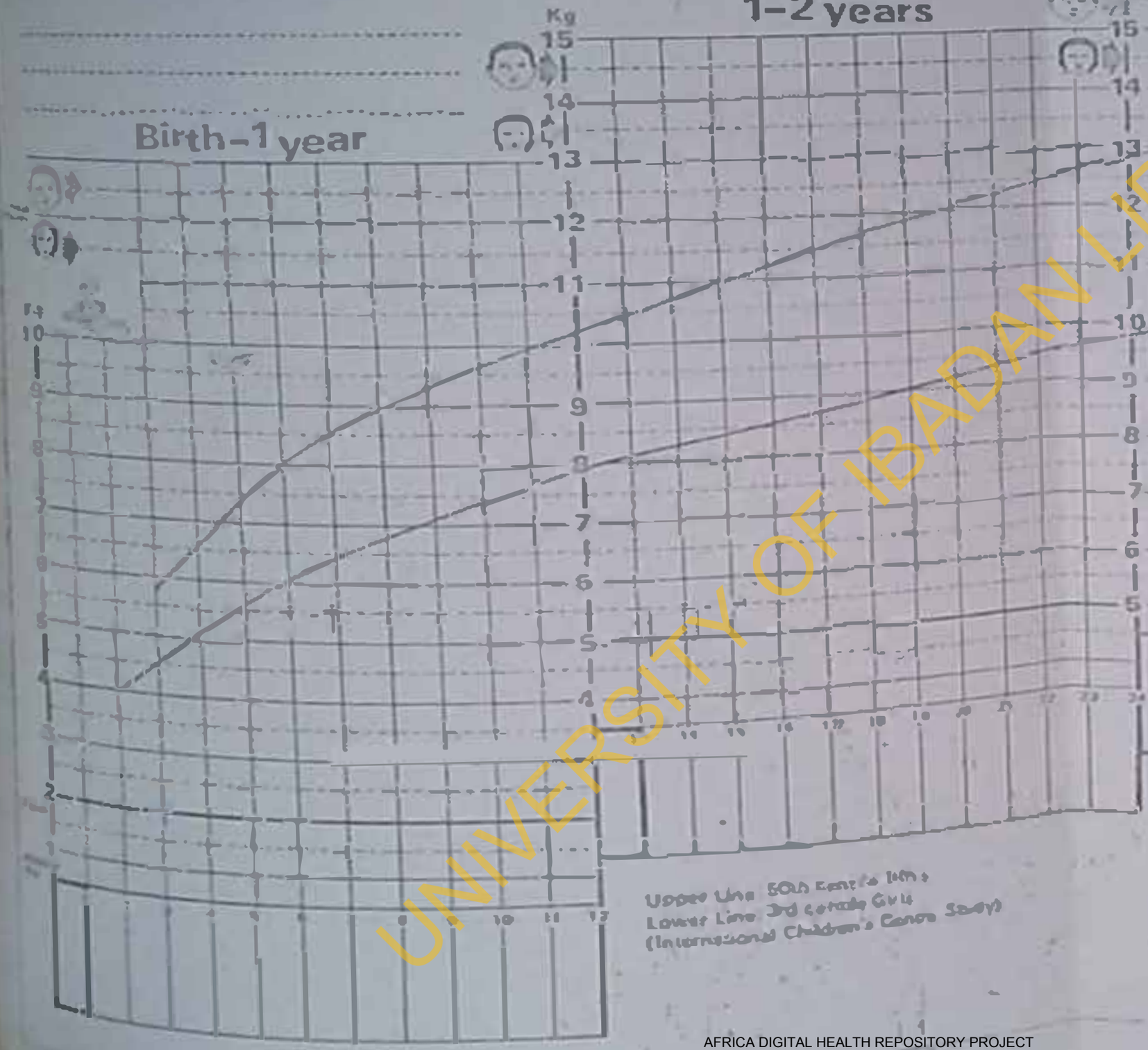
Reasons for special care

.....

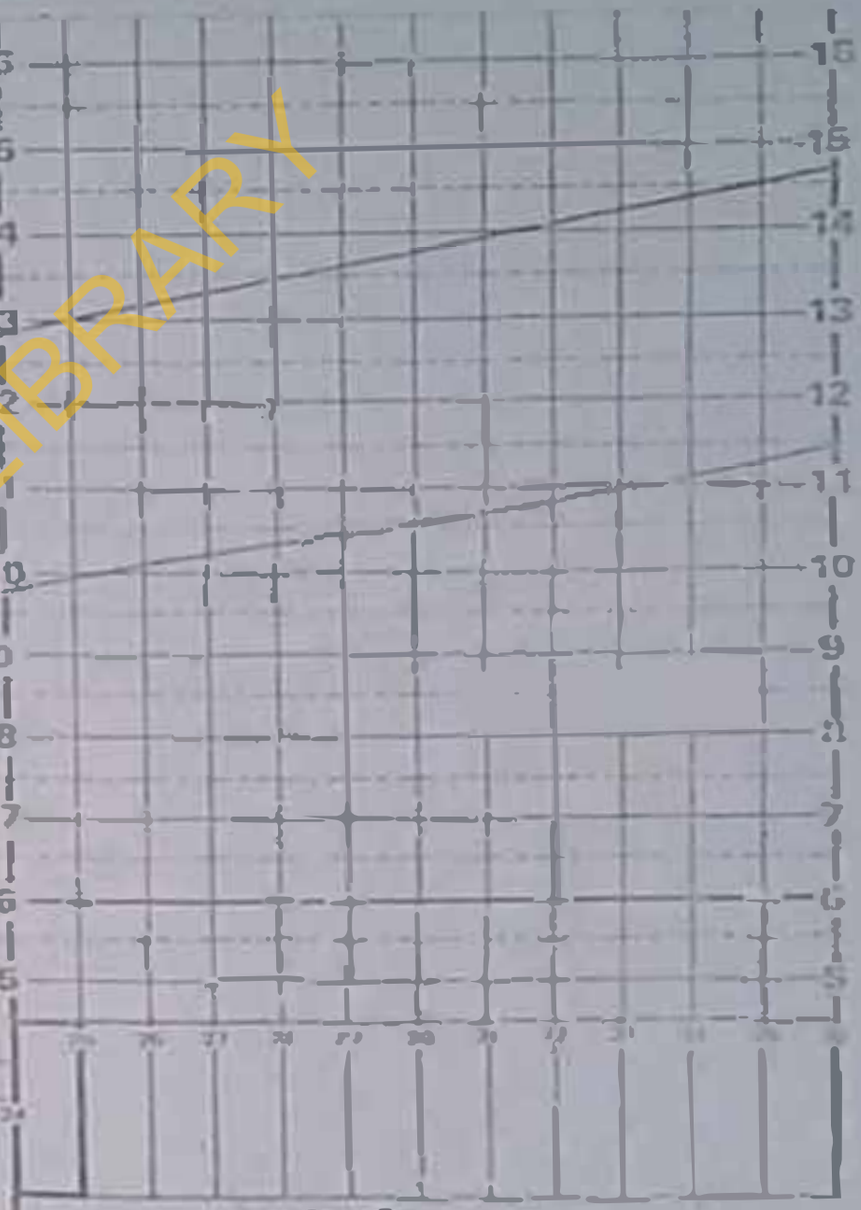
.....

.....

Birth–1 year



1–2 years



2–3 years

APPENDIX 1

Reasons for special care

.....

.....

.....

Birth–1 year

1–2 years

2–3 years

Upper line 50th centile Boys
Lower line 3rd centile Girls
(International Creation & Comp Society)

APPENDIX II

UTILISATION OF PRE-SCHOOL CHILDREN'S HEALTH SERVICES IN IBARAPA DISTRICT: IMPLICATIONS FOR HEALTH EDUCATION

1. Town: _____

2. Census No.: [ ][ ][ ][ ][ ][ ]

3. Serial No.: [ ][ ][ ][ ]

4. Compound Name:- _____

5. Do you have any children under five years of age?

   1. Yes
   2. No [ ]

6. If yes, what are their ages?

   Male 1 _____ Female 1 _____
   2 _____ 2 _____
   3 _____ 3 _____

7. What are the ages of your older children:

   Male 1 _____ Female 1 _____
   2 _____ 2 _____
   3 _____ 3 _____

8. Mothers age:

1. Less than 15
2. 15 - 19
3. 20 - 24
4. 25 - 29
5. 30 - 34
6. 35 - 39
7. 40 - 44
8. 45 and above

9. Ethnic Group:

1. Yoruba
2. Fulani
3. Hausa
4. Edo
5. Ibo
6. Others (Specify)

10. Religion:

1. Protestant (Traditional)
2. Protestant (Evangelical)
3. Catholic
4. Moslem
5. Traditional faiths
6. Others (Specify)

11. Marital Status:

1. Single
2. Married
3. Separated
4. Divorced
5. Widowed

12. Highest educational level:

1. Illitrate
2. Primary education
3. Secondary Modern School
4. Secondary School
5. Technical School
6. Teacher Training School
7. University Education
8. Others (Specify)

13. Mothers Occupation: _____

14. Husbands Occupation: _____

15. Number of Husbands wives:

1. 1 wife
2. 2 wives
3. 3 wives
4. More than 3 wives

16. Mothers rank in the family:

1. Only wife
2. 1st wife
3. 2nd wife
4. 3rd wife
5. Others (specify)

[ ]

Previous Service Use:-

(Data to be cross-checked with health card of oldest child taken to pre-school clinic)

17. Have you ever taken a child to the pre-school clinic?

1. Yes
2. No.

[ ]

18. If No, why have you not made use of this service?

_____

19. If Yes, for what reason?

1. Treatment [ ]
2. Immunization [ ]
3. Routine examination [ ]
4. Others (Specify) [ ]

20. From whom did you hear about the Clinic? _____

21. Who encouraged you to registered the Clinic? _____

22. Whenever you have a problem with your child who do you usually seek advice from? _____

23. What is your husband's action when your child is sick? _____

Immunization Record

24. B.C.G. (anti - tuberculosis immunisation)

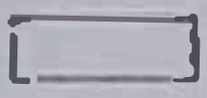
1. Yes
2. No

25. Measles immunization

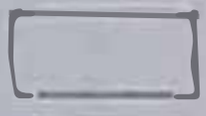
1. Yes
2. No

26. Poliomyelitis immunization

i. 1st dose 1. Yes
2. No



ii. 2nd dose 1. Yes
2. No



iii. 3rd dose 1. Yes
2. No

27. Diptheria, whooping cough and tetanus immunization

i. 1st dose 1. Yes
2. No ☐

ii. 2nd dose 1. Yes
2. No ☐

iii. 3rd dose 1. Yes
2. No ☐

28. Has your child suffered from the following diseases

Tuberculosis (Iko egbo)

1. Yes
2. No ☐

Measles (Ile gbona)

1. Yes
2. No ☐

Whooping Cough (Iko ife)

1. Yes
2. No ☐

Diphtheria

1. Yes
2. No ☐

Tetanus (Arun Ipa)

1. Yes
2. No ☐

Poliomyelitis (Ropa rose)

1. Yes
2. No ☐

29. Clinic Attendance:

i. Total number of visits from 1st date of Registration _____

ii. Number of visits due to ill-health _____

iii. Number of visits for routine examinations _____

iv. Total number of possible visits from 1st date of registration _____

30. Child's common illnesses within past year (as recorded on clinic card)

1. _____
2. _____
3. _____
4. _____
5. _____

31. If none, specify _____

_____

32. What do you feel is responsible, if your child falls ill? _____

_____

33. What do you know about the following conditions:

	Cause	Treatment	Prevention
Diarrhoea (Igbe gburu)	____	_____	_____
Sunken fountanelle (oka)	____	_____	_____
Measles (Ile gbona)	____	_____	_____
Convulsions (Giri)	____	_____	_____
Malaria (Iba)	____	_____	_____
Malnutrition	____	_____	_____
Intestinal Worms (Aran inu)	____	_____	_____
Anaemia	____	_____	_____

34. Are any of these conditions more serious than others?

1. Yes
2. No ☐

35. If yes, which, and why do you feel it is more serious?

_____ _____

_____ _____

_____ _____

36. Where would you go to obtain the best treatment for the following conditions?

	1	2	3	4	5
Diarrhoea (Igbe gburu)					
Sunken fontanell (Oke)					
Measles (Ile gbona)					
Convulsions (Giri)					
Malaria (Iba)					
Malnutrition					
Intestinal worms (Aran inu)					
Anaemia					

1. Chemist shop
2. Pre-school clinic
3. Herbalist
4. Home-made drugs
5. Others (Specify)

35. If yes, which, and why do you feel it is more serious?

_____ _____

_____ _____

_____ _____

36. Where would you go to obtain the best treatment for the following conditions?

	1	2	3	4	5
Diarrhoea (Igbe gburu)					
Sunken fontanell (Oke)					
Measles (Ile gbona)					
Convulsions (Giri)					
Malaria (Iba)					
Malnutrition					
Intestinal worms (Aran inu)					
Anaemia					

1. Chemist shop
2. Pre-school clinic
3. Herbalist
4. Home-made drugs
5. Others (Specify)

37. Who takes your child to the clinic if you have travelled or are unable to go? _____

38. How long do you usually spend at the clinic? ___hrs.

39. Is the time:

1. Too long
2. Adequate ☐
3. Not long enough

40. What in your view is the purpose of the following clinic activities:

Routine weighing _____

Immunization _____

Health talks _____

41. What two activities are most useful to your child?

Free medicine ☐

Routine weighing ☐

Clinical examinations ☐

Immunization ☐

Health talks ☐

42. What additional services have the staff provided that:

i you would like continued and why?

_____ _____

_____ _____

ii you would like improved and why?

_____ _____

42. What additional services have the staff provided that:

i you would like continued and why?

_____ _____

_____ _____

ii you would like improved and why?

_____ _____

O. P. Number APPENDIX 3 Date of issue.... ....

PRE-SCHOOL CHILDREN'S CARD

IBARAPA HEALTH SERVICES.

Issued by ....

Maternity Centre, Health Centre or Hospital

Name.. .... Sex .. ..

Address..

.... Date of birth ....

Date	Weight	Complaints and treatment

O. P. Number APPENDIX 3 Date of Issue.....

PRE-SCHOOL CHILDREN'S CARD

IBARAPA HEALTH SERVICES.

Issued by .....

Maternity Centre, Health Centre or Hospital

Name.. ..... Sex .....

Address.....

..... Date of birth .....

Date	Weight	Complaints and treatment