

**MANAGEMENT OF CHILDHOOD ACUTE RESPIRATORY
INFECTIONS AMONG THE PEOPLE OF LARTEH.**

BY

**SIAW APREH NICHOLAS.
10045580.**



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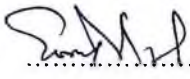
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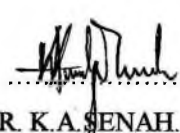
DECLARATION

I hereby declare that except for the reference to other people's work which have been duly acknowledged, this work is the result of my own research and that it has neither in part nor in whole been presented elsewhere for another award.

I do hereby accept full responsibility ^{for} of any weakness in content or in style, marginal or substantial, which remains in spite of all assistance received.

 Date 8/4/2014

MR. E. H. MENDES.
(SUPERVISOR)

 Date 5/4/04

DR. K. A. SENAH.
(SUPERVISOR)



 Date 5-4-2014

SIAW APREH NICHOLAS.
(STUDENT)

DEDICATION

This thesis is dedicated to Ghanaian children who died due to irrational use of drugs.



ABSTRACT

This study examines how childhood ARI is managed among the people of Larteh. The study examined mother's perception on the causes, treatment-seeking behaviour, preventive strategies and the choice of health care outlet for childhood ARI.

To determine the role the Government of Ghana is playing to promote the well being of children, the national programme for children in Ghana were examined. It included sub-themes that deal with child survival, protection and development. The input the state makes to promote the well being of children, affect that health-seeking behaviour mothers adopt for their morbid children. This expository study offers an opportunity to understand from a wider perspective the various health-seeking behaviour mothers adopt when their children are morbid.

The social structure of Larteh was also described in order to understand the people's ethnomedical perceptions, knowledge, attitudes and practices in the management of childhood ARI. Larteh is one of the major towns in the Akwapim North District. It is located 32km from Accra and it is situated on a range of mountains called the Akwapim-Togo range. Early missionary works in the area of christianity, formal education and agriculture have hastened the process of change in the study area.

In order to obtain detailed information, interviews, focus group discussions and observation were used as the main instruments to collect primary data for the study. The study has shown that cold air entering the chest and head of children as well as living in an unhygienic environment are among the main causes of childhood ARI. It was also found that there are multiple treatment paths mothers adopt for the treatment of childhood ARI. These are based on such factors as perceived cause, nature of ailment, efficacy of treatment and affordability of service. However, due to inadequate knowledge on the danger signs and symptoms of ARI most mothers delay in seeking for health care at the clinic.

It is being suggested that ethnomedical perceptions on the management of childhood ARI should be considered in designing strategies for the control of ARI. When this is done, it will help understand folk nosologies, which are important in the planning for preventive strategies of ARI.

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ACRONYMS AND ABBREVIATIONS

A A G H	Accelerated Agricultural Growth and Development.
A R I	Acute Respiratory Infections
A T R	African Traditional Religion
D H M T	District Health Management Team
E P I	Expanded Programme on Immunization
F C U B E	Free Compulsory Universal Basic Education
F G D	Focus Group Discussion
F G M	Female Genital Mutilation
G D H S	Ghana Demographic and Health Survey
G L S S	Ghana Living Standard Survey
G N C C	Ghana National Commission for Civic Education
G S S	Ghana Statistical Service
N C C E	National Commission for Civic Education
J S S	Junior Secondary School
K V I P	Kumasi Ventilated Improved Pit
M C H / F P	Maternal and Child Health and Family Planning
M O H	Ministry of Health
M O W A C	Ministry of Women and Children
P H C	Primary Health Care
R B M	Roll Back Malaria
S H E P	School Health Education Programme
S S S	Senior Secondary School
U N I C E F	United Nations Children's Fund
W H O	World Health Organization

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CHAPTER ONE

1.1 Background of the Study

The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of age, race, religion, and political belief, economic or social condition (WHO 1998). WHO (1979, 1984) and Grant (1980) have stressed that the health status of children in any country is very crucial because it is an indicator for measuring socio-economic development as well as for determining the future prospects of a country. Gwatkin (1980) has also stated that for children to grow into healthy able adults, and to live through the perilous first years of life, they need good food, clean water, education, and medical care. Besides these factors, they also need to be born healthy and need mothers who are healthy as well as the families that can give them care and attention.

Childhood diseases in developing countries are mainly malaria, diarrhoea, measles, neonatal tetanus, whooping cough, tuberculosis and bronchopneumonia [(Morley and Mac William 1961; Ghana Statistical Service (1998)]. Out of every three deaths that occur in the world one is a child under the age of five. Grant (1990) has noted that almost all childhood diseases are preventable. With vigorous public education on health promotional practices coupled with compulsory immunisation for all children in developing countries, the wide gap in infant mortality between developed and developing countries will be narrowed. Grant (1990) has anticipated that every week more than a quarter of a million children will die in a quiet carnage of infection and under nutrition. In sub-Saharan Africa, this problem has assumed worse dimension due to frequent political and tribal upheavals coupled with poor management of the national economy.

In Ghana, since the attainment of political independence many policies and programmes have been adopted to improve the health status of children. Such interventions include the establishment of Ghana National Commission on Children in 1979, the adoption of Primary Health Care Programme, and the ratification of the United Nations Convention on the Right of the Child and Education on Nutrition and Vitamin Supplements. Through such interventions, Ghana has reduced infant

mortality from 100 per 1000 live births to 57 per 1000 live births in the past 20 years. This led to a percentage decline of 43 while under five mortality fell by an equal amount from 187 to 108 deaths per 1000 live births in 1996 (Ghana Demographic and Health Survey, 1998). GDHS (1998) has indicated that childhood morbidity in Ghana is attributed mainly to acute respiratory infection (ARI), malaria and diarrhoea.

Acute respiratory infections (ARI) are found in either the upper or lower respiratory tract. Signs and symptoms for upper respiratory tract infections include common cold, frequent sneezing, restlessness and cough while that of the lower tract include foul breath, fast breathing, difficult breathing, cough and chest in-drawing.

In Ghana, 14 percent of children under five years of age show symptoms of ARI (GDHS 1998). The prevalence of ARI varies by age of the child. Children aged between 6 – 11 months are the most vulnerable to this disease. Rural children are more susceptible to ARI than urban children. Children of mothers with little or no education are also very vulnerable than those with post secondary education. This is because mothers with higher educational levels may be more aware of the causes of ARI and preventive health care strategies than the mothers with little education. ARI could be treated with antibiotics when diagnosed early (GDHS, 1998). The use of health facility for the treatment of ARI symptoms is low in Ghana. One in every four children suffering from the symptoms of ARI uses modern health facility. The most preferred facility for the treatment of ARI is through pharmacies and or drugstores, which signifies that self- medication is an important treatment outlet for ARI in Ghana (GDHS 1998).

This scenario should prompt policy makers on the enormity of the task in promoting child health. In this light, health-seeking behaviour should be sought in a more diversified manner to include all ranges of practices that exist in both the traditional and western bio-medical health care systems. Omorodion (1993) has stressed that it is when the above realisation has been met that total health belief that influences mother's treatment decision and behaviour would be understood and subsequently help in the effective management of childhood diseases.

1.2 **Statement of the Problem**

In Ghana, ARI is ranked second (after malaria) as a major cause of child mortality and morbidity. 14 percent of children under five years of age show symptoms of ARI (GDHS 1998). Despite the prevalence of ARI, most mothers have not given the treatment of this disease the needed attention it requires. For instance, Malm et al (1994) have stated that Ga-Adangme caretakers self-treat children with the symptoms of ARI at home in the first instance and until symptoms persist and the child's condition becomes severe, they will not consult western biomedical health practitioner for attention.

Glik et al. (1989) and UNICEF (1990) have also reported that, mothers do not give their children the right dosage for the treatment of their children's ailment. This has led to many debilitating effects on the health status of the affected children due to the increasing rate of drug resistance. These aforementioned reports go to confirm GDHS (1998) report, which states that, the use of health facilities for the treatment of ARI symptoms is low in Ghana.

The implication to be drawn from these reports is that majority of mothers self-treat children with symptoms of ARI at home and in so doing turn to delay appropriate treatment at clinics or hospitals. Unfortunately, the factors that influence mothers' to use such health care strategy are not known.

Evidence from the Akwapim North District Health Management Team office at Mampong Akwapim shows that many childhood illness episodes and deaths are caused by sub-optimal case management by caretakers at home. Most of the caretakers have little or no knowledge about disease management. Most caretakers also do not know the danger signs and most symptoms of severe respiratory infections so they normally delay sending their affected children to bio-medical health facilities for medical attention. There is therefore the need to sensitise all stakeholders to intensify public education on rational use of drugs and danger signs of ARI.

Larteh can boast of over fifty (50) traditional health practitioners such as spiritualists and herbalists. Unfortunately, these health practitioners do not receive any support

form the Health Ministry to enhance their performance in the health delivery system. No qualitative and quantitative assessments of their operations have been made by the responsible agencies in Ghana (Food and Drugs Board and Ghana Standards Board). The situations surrounding their operations have caused much reservation among health seekers. Despite these reservations, traditional health practitioners have attracted a great number of health-seekers. It will be interesting to know the factors that influence mothers to use such facilities for their already vulnerable morbid children and also to determine the health status of such children thereafter.

Most mothers tend to use both traditional and orthodox medication in the management of childhood ARI. Especially when the children have severe morbid conditions. Examination of the factors mothers consider before combining these two distinct therapeutic regimens will help enhance knowledge of health hazards associated with parental prescription of drugs.

The manufacture and sale as well as the use of locally prepared tonics for the treatment of various ailments have assumed an increasing dimension in Ghana in recent times. Many mothers administer these local drugs to their children even though they are not aware of the possible side effects. The popularity of such tonics and the relative lack of knowledge on the possible side effects call for more scientific research, better regulations on its sales as well as health-seeker's education to ensure the rational use of such drugs

Some childhood diseases such as convulsion, measles, and bronchopneumonia, are believed to be caused by supernatural factors in some traditional societies. Traditional health practitioners mainly treat such diseases. Some of these affected children get healed; others get worse and some even die (Omorodion 1993). No formal account has been given on such affected children. There is therefore the need to know whether such children get appropriate treatment with effective traditional drugs and also to identify the best strategies to improve their situation.

This knowledge will help health educators and policy makers to enhance their programmes on the rational use of drugs for children because more information on specific drug use, and drug resistance pattern among a certain age group will be

known. This will further help strengthen future realistic treatment policies, which take account of resource constraints, lowering and removal of economic barriers especially user charges and ways of promoting compatibility of beliefs on childhood ARI with appropriate treatment

1.3 **Objectives of the Study**

The general objective of this study is to determine how mothers manage ARI among their children. The specific aims are to;

- 1) Analyse mothers' perception of the etiology of childhood acute respiratory infection;
- 2) Examine ways by which mothers prevent the occurrence of the said childhood disease;
- 3) Determine the treatment-seeking behaviour of mothers; and
- 4) Examine the factors that affect the choice of health care outlets.

1.4 **Hypothesis**

1. Mothers perception of the etiology of childhood respiratory infections depend on their religious affiliations
2. The type of preventive measures adopted by mothers for childhood acute respiratory infections depend on their level of education.
3. The mode of treatment of child's acute respiratory infections depends on the size of the household income.

1.5 **Methodology**

1.5.1 **Sources Of Data**

Primary and secondary data were collected for this study. Secondary data included any recorded information or data on management of childhood diseases. This involved books, magazines and reports and newspapers as well as past research projects relevant to the study.

Primary data were the information obtained from the field through structured interview schedule, focus group discussion and key informant interviews.

1.5.2 **Research Instrument**

In order to get reliable information on such sensitive issues as mother's perceptions, beliefs and attitudes on the management of childhood acute respiratory infections, three major complementary methods were used in this study. These were structured interview schedule, focused group discussion and key informant interview.

Structured interview schedule consisted of both close-ended and open-ended questions. The open-ended questions gave the respondents the opportunity to freely answer the questions asked in an unrestricted manner. This method helped the researcher to get detailed information on the phenomenon under study. Questions asked centred on mothers' perception of the etiology of childhood ARI, preventive measures, treatment strategies and the choice of health care outlet for the treatment of childhood ARI.

Taking into consideration the problem of recall usually encountered in such household surveys, mothers were asked to recall how they managed their child's ARI in the most recent past (not exceeding six month). Mothers were exclusively used for the household survey because they are the main agents of socialisation at home. Above all, mothers are normally entrusted with the duties of child's care.

In all, 225 respondents out of about 700 mothers were contacted for interview. This sample size was arrived at by multiplying the 3 enumeration areas by the 75 respondents. The number 75 was arrived at by taking one-third of the population in each enumeration area.

A major weakness realised in this structured interview schedule was that most mothers reported on practices they ought to undertake rather than what they actually do when their children have ARI.

In order to minimise these distortions between reported behaviour and actual behaviour, focus group discussions among parents of different age groups 30-40, 41-50, 51-60 and those above 60 years were conducted. The use of this method had a dual purpose. It was to act as a validity check on the responses from the structured interview schedule and also to give an elaborated account on the phenomenon under study. In this, six parents from each cohort were organised for the discussion. These discussants were drawn from three enumeration areas in the study area. A total of twelve focus group discussions were held involving seventy-two parents.

The Researcher also held interviews with some key informants in the study area. They included the Nursing Officer in charge of the local clinic, a traditional priest, a herbalist, pastor (prayer camp leader) and a drug store keeper. They were asked to show how childhood ARI is managed at their respective facilities.

1.5.3 **Study Population**

The study population was restricted to mothers who have at least a child under five year of age and living in Larteh. Another qualification was that these mothers should have stayed in Larteh for not less than a year.

1.5.4 **Sampling Techniques**

In order to introduce representativeness into the data, simple random sampling technique was employed to select three enumeration areas (determined by the Electoral Commission of Ghana for electoral purposes) out of the twelve enumeration areas in Larteh. This was done through the lottery method .

After the enumeration areas had been selected, another simple random sampling method was used to select 75 mothers from each of the three enumeration areas. To do this, a head count of all the mothers in each of the chosen enumeration areas was done to determine the total number of mothers and their respective house numbers in each enumeration area. The lottery method was applied in this instance also.

A total of 225 respondents were selected for the community survey.

1.5.5 **Pre-Field Activities**

A pre-test of the interview schedule was done on ten respondents, each town with similar characteristics of the study area. The rationale for embarking on this pre-test was to determine whether the questions set were appropriate.

1.5.6 **Ethical Issues**

The following ethical conducts on researcher and respondent relationships were observed. Informed consent of respondents was sought before information was solicited from them. Again, to solve the problem of invasion of privacy, the respondents were assured of anonymity and confidentiality. These assurances were stated in the cover letter attached to the self-administered questionnaires.

1.6 **Review of literature**

A number of writers have written on various aspects on children. These include sociologists and anthropologists, clinicians, and policy makers. Child health attracts writers because it is a critical index for assessing the level of a nation's development.

Ruutu et al.(1994) in their expository study on respiratory infections have stated that until 1979, many developed countries did not consider childhood ARI as a threat to the survival of children. This situation was due to unreliability of official statistics and the inability of health practitioners to establish a relationship between specific causative agents of childhood ARI. These situations according to them have led to many preventable deaths among children. Most of such deaths were considered mysterious and were thought to emanate from spiritual causes.

Even though Ruutu's study was the collection of other people's work, it is an important source for understanding the history and early perceptions on the etiology of childhood ARI. The educational component in his study is also instrumental in understanding control programs of ARI in developing countries where most mothers home treat their children suffering from ARI.

Lang et al. (1986) made another important contribution to the understanding of the management of childhood ARI. This was a longitudinal study carried from February 1983 to March 1984 in Bana Township, in Burkina Faso. The study was designed to assess the importance of ARI as a source of morbidity and also to determine the factors that influence its incidence, so that control strategies can be implemented.

The outcome of Lang et al.'s study was that all children under study have as many as 8 to 13 episodes of ARI in a year. It also indicated that as high as half of the yearly incidence of ARI emanates from acute lower respiratory conditions. Lang et al. further indicated that a child with an arm circumference of less than 13.5cm suffers more episodes of both upper and lower respiratory infections than were children with larger arm circumference.

Mtango and Neuvian (1986) also undertook a longitudinal study in Tanzania to evaluate case-management strategies for the control of ARI. These strategies stressed early detection of Acute Lower Respiratory Infection (ALRI) through the identification of danger signs and symptoms such as chest in-drawing and fast breathing. The education on the appropriate antibiotic treatment of primary health care personnel and mothers was also emphasised.

The longitudinal studies (Lang et al, 1986, and Mtango and Neuvian, 1986) have proven to be more effective in providing detailed information on the incidence of ARI morbidity and mortality. However, their use is limited by the fact that they are expensive and time-consuming in execution. Due to these constraints, there are very few of such studies on childhood ARI.

Other studies on etiology of childhood ARI have been carried out. One of such studies was undertaken by Wall et al (1986). Their studies researched into bacteria etiology of pneumonia in the Gambia. It was also found that the most dominant bacterium in the culture was streptococcus pneumonia.

Omer et al. (1985) also undertook a bacteriology study on sore throats in the Sudanese population. A total of 164 outpatients were used for this study. The study found out

that bacteria constitute an important cause of sore throat among the outpatients who attend hospital in the Sudan, and their relative isolation rate was 51percent.

Berman and McIntosh (1985) conducted another study on bacteria etiology on ARI. They aimed at improving strategies for the control of ARI in developing countries. The outcome of their study was that as high as 65 percent of the patients were infected with bacteria causing pneumonia and the dominant bacteria were haemophilus influenza and streptococcus pneumonia.

In Kenya, Mutie et al (1976) looked at viral etiology of severe ARI. The study examined 41 children aged less than two years old who were admitted for broncholitis or bronchopneumonia. The study found that 39 percent of the patients had Respiratory Syncytial Virus (R S V) infections, 7.3 percent had Parainfluenza Virus and less than 5 percent of the patients were infected with adeno virus, cytomegalo virus, echo virus and rhino virus.

The review of these studies (Mutie et al. 1976; Berman and McIntosh 1985; Omer et al. 1985; and Wall et al. 1985) on bacteria and viral etiology of ARI has established that bacteria infections constitute the most common cause of acute lower respiratory infections. However, some limitations to these studies were that, their studies only concentrated on episodes of acute lower respiratory infections without highlighting upper respiratory tract infections. This weakness does not make the study complete since any holistic study on ARI should include episodes on both lower and upper tract infections. Also these studies were mainly epidemiological in nature. They did not consider ethnomedical perceptions on the etiology of ARI. The lack of ethnomedical perceptions on the etiology of ARI can hamper the effectiveness of any control programme. As indicated by Bamikale (1997), ethnomedical perception on the cause of childhood diseases had greater influence in the health –seeking behaviour of the people.

Tupasi et al. (1990) undertook an ARI risk reduction study in the Philippines. The study sought to establish a relationship between malnutrition and acute respiratory tract infections in Filipino children. The study found out that malnourished children

who have pneumonia stand a higher risk of dying (more than three times) than healthy children.

Another study on risk factor of ARI was conducted by Lepage et al (1981). The study aimed at establishing an association between breast-feeding and hospital mortality among children in Rwanda. The study found out that mortality caused by acute lower respiratory infections was lower in children aged less than two years old and had been breast-fed. It was also found that children who were not breast-fed stood a greater chance of getting diarrhoea than those who were breast-fed.

Allen (1984) studied the relationship between seasonal changes and the incidence of lobar pneumonia in Zambia. He found out that admission rates for acute pneumonia were doubled in the dry season than in the raining season. He attributed the high incidence of pneumonia during the dry season to deterioration in nutritional status of people.

Although the studies on risk factors (Lepage et al, 1981, Allen, 1984, and Tupasi et al, 1990) stressed the need to consider determinants of health such as lack of breast feeding and immunisation, malnutrition and seasonal changes in the control of childhood ARI. They failed to indicate whether determinants such as sanitary practices, and socio-economic status of households are very instrumental in determining the health status of children.

Senah et al. (1994) in their anthropological study in the Kasena and Nankana communities in the Upper East Region of Ghana indicated how socio-cultural practices affect childhood mortality and morbidity. The study found among others that, there is extremely high gender bias against women in such communities such that their level of participation in decision-making and access to the acquisition of income and other property are virtually non-existent. The ripple effect of these practices on their children is that women are always constrained in terms of decision – making and material support when their children are sick. It was also found that even though mothers know how to manage childhood diseases such as cough, malaria, diarrhoea and measles, they are not allowed to manage these ailments themselves when

their children are ill. This is because such roles are the joint responsibilities of the head and the senior woman in the compound.

Malm, et al. (1994) in their study of caretakers' perceptions of ARI and home management practices in the Dangme West District described the local terminologies that are used to describe ARI. They also determine danger signs and symptoms of ARI, and home management practices associated with ARI. Among others, the study indicated that there are ten (10) ARI related illness terminologies in the Dangme West District. The choice for health care outlet for the treatment of ARI varies according to what caretakers perceive to be the cause of the illness.

Awedoba, et al. (1995), carried out an ethnographic study in the Brong Ahafo, Upper West and Volta regions of Ghana. The study focused on identifying the local terminologies, danger signs, perceived cause, and partners in health seeking for the treatment of childhood ARI. It was found that there was no single term for describing ARI. Different local names were used to describe such disease episodes. Pneumonia was identified to be the most threatened form of ARI. The main cause was attributed to cold air entering the head or chest of children. It was also observed that fathers were involved in health care decision most of the time (56.7 percent of the cases).

Iyun and Goran (1996) focused on mothers' perceptions on etiology and treatment of childhood ARI in rural settlements in Oyo State, Nigeria. Most mothers regarded ARI episodes as ordinary coughs and cold. Mothers believed that these are mostly caused by exposure to cold. The dominant treatment practices was either the use of irritants (bitter remedies) such as drinking cow urine to help the child vomit obstructed mucus, or the use of remedies with warming and soothing properties

Muhe (1996) conducted another ethnographic study. He emphasised on mother's perception on the nature, signs and symptoms of ARI in an urban community in Ethiopia. The study found that mothers considered ARI episodes as cold and cough. ARI was considered to be serious when it becomes persistent. He also found that runny nose, fast breathing, fever, cough, restlessness; body pains are some of the general signs and symptoms of childhood ARI.

Bamikale, et al. (1997) used survey methods to study the impact of cultural beliefs on mother's management of childhood diseases in Yoruba, Nigeria. The main concern for the study was to determine the perceived etiology of measles, diarrhoea and malaria and to determine whether mother's believed in the existence of spirit children (abiku). The study showed that 4.4 percent of the mothers have adequate knowledge of the cause of measles, 55.8 percent of diarrhoea, and 66.4 percent of malaria. It was also found that majority of mothers (56.2 percent) believed in the existence of spirit children (abiku), 30.6 percent did not believe in abiku. While 13.2 percent were not sure of their believe. Mothers who believed in abiku indicated that repeated deaths of children of couple, deformity of children, frequent indisposition, are among the evidence of abiku.

Hussani, et al. (1997) studied perceptions and management of ARI among the people of Karachi in Pakistan. The study aimed at considering the variations in treatment - seeking pattern and the perceived reasons for the choice of treatment outlets. They found that between 10-99 percent of patients used the clinics and hospitals for the treatment of ARI while between 4- 87 percent self purchased drugs. They also found that exclusive reliance on traditional methods was extremely rare, although traditional remedies were often combined with modern medicine. The main reason for self - medication was the perceived high cost of treatment at the clinics and hospitals.

The GDHS (1998) indicated that 14 percent of children in Ghana aged less than five years had symptoms of ARI during the time of the study. It was also seen that the prevalence rate of ARI varies according to the ages of children and it is higher among children aged 6-11 months. In terms of geographical distribution, children residing in rural areas have higher occurrence of ARI than their counterparts in the urban centres. It was also found out that children of mothers with little or no formal education have higher occurrence rate of ARI than children born to mothers with secondary education. The most dominant treatment outlet for children suffering from ARI is the government health facility followed by the pharmacy shops or drug stores.

Asenso-Okyere, et al. (1998) in their study of malaria care, identified that the health financing reforms that culminated in the introduction of user charges and full cost recovery for drugs in health care facilities have made it very difficult for many people

to access modern health care. It was also identified that there is often a delay in reporting illnesses to bio-medical health care providers and during these periods certain home management practices are adopted as cost saving measures.

Brokensha (1966) undertook an anthropological study at Larteh to determine the social changes that have taken place. He found among other things that in terms of medicine and health, there are different treatment paths. These are used based on the health-seeker's perception on the nature and cause of the ailment.

It has been shown from most ethnographic studies that there is the need to identify danger signs and symptoms of ARI and the perceived causes of childhood ARI. The studies have further demonstrated the need to understand health-seeking behaviour from the social and cultural determinants of behaviour in such matters as childcare and disease management. This study attempts to add to the existing literature on the socio- cultural components of childhood ARI in a rural town.

1.7 **Conceptual Framework**

The Health Belief Model (HBM), formulated by Hochabaum et al. (1975) has been adapted for use in this study.

This model has undergone major modifications and has been used extensively in examining health-seeking behaviours. For instance Rosenstock et al (1994) used it to explain HIV risk behaviour changes in Michigan. Leke (1998) also adapted this model in determining health system inadequacies and adolescent reproductive health needs in the north-western province of Cameroon.

The HBM works under the assumption that, mothers place value on the desire to prevent as well as control disease among their children. Mothers also believe that any specific health care action taken in the management of childhood diseases would make the desired outcome, which is either preventive or curative.

In this model, a mother's state of readiness to take a specific health action when a child is ill is influenced directly or indirectly by her socio-demographic

characteristics. Such characteristics include her age, religious affiliation educational level attained, type of occupation, individual or household income levels and the childcare experience acquired. These factors in the long run shape the mother's perception on the child's susceptibility to the said disease as well as the etiology and the severity of the said disease (refer to fig. 1)

Other external factors (cues to action) in the form of mass media campaign, advice and pressure from significant others also have the power to influence mothers on the choice of health-care outlet to use for their children since it can adequately inform mothers on the threats to a child's health as well as barriers to the health-seeking decisions for the management of childhood diseases.

Other factors that help determine mother's specific health care action for their children such as consulting a herbalist, spiritualist, physician, delay an action or take no action also depend on the perceived benefits the mother hopes to derive from such an action to be taken.

A weakness in this model is that, it assumes that every health –seeking behaviour adopted, will always yield the intended result that is to get well. Due to this, the model does not give an alternative health –seeking behaviour outlet. Despite this weakness, it is still relevant for this study because it reveals the interrelationship that exists among the factors which influence a mother's decision to take a specific health care action. It also extends the use of social and psychological variables to the explanation of the preventive health care action of mothers to illness behaviours of children and to sick-role behaviours of significant others in society.

1.8 **Organisation of the Study**

The thesis is divided into five chapters. Chapter one is devoted to the introduction of the study and it highlights sub-themes as background of the study, the statement of the problem, rationale, objectives of the study, tools for data collection and review of related literature.

National programme for children are also discussed in the second chapter, while the descriptive analysis of the characteristics of the study area is also looked at in the third chapter.

Chapter four deals with data presentation, analysis and discussions of the results and the last chapter also looks at the implications of the research findings, summary and recommendations of the study.

CHAPTER TWO

2.0 NATIONAL PROGRAMME FOR CHILDREN IN GHANA.

2.1 Introduction

This chapter discusses some of the national policies and programmes that have been put in place to ensure the well being of children in Ghana. Sub-themes that deal with child survival, protection, and development have been examined. Even though this study is not meant to evaluate specific children's programmes, it attempts to relate children's well being to some specific programmes embarked upon by the state.

2.2 The GNCC

The main agency responsible for co-ordinating all welfare activities of children, is the Ghana National Commission on Children (GNCC). It was constituted by statute in 1979 (AFRC Decree 66). The formation of GNCC was recommended by the Ad Hoc Committee on the International Year of the Child. Its main objectives are to co-ordinate and promote the welfare and development of children by working with ministries and departments like Ministry of Health, Education and Department of Social Welfare (GNCC 1997)

In the year 2000 the status of GNCC was changed after the formation of Ministry of Women and Children (MOWAC). MOWAC is now the highest government organisation concerned with women and children's issues. GNCC currently operates as a department under MOWAC.

MOWAC is currently working on the domestic violence bill. The rationale for this bill is to strengthen the right of women at home. Some of the issues being addressed in the bill include marital rape.

2.2.1 Ministry of Health

The Ministry of Health (MOH) is the central government agency responsible for all health issues affecting children and adults in Ghana. Article 24 of the Convention on the Right of Children states that every child has the right to the

highest standard of health attainable. To fulfil this demand for children, the Ministry of Health has undertaken series of programmes to improve the health status of children. Such programmes include combating childhood diseases through low-cost remedies and by strengthening health care, promoting better food and nutrition, and promoting maternal health and family planning. According to the Ghana National Report on the Follow-up of the World Summit (2000), in combating childhood diseases through low-cost remedies and strengthening of Primary Health Care and basic health Services, the National Child Health Policy has been implemented. This policy ensures that every health service delivery point offers daily child services through child welfare clinics. In addition to building new as well as upgrading existing health facilities, the School Health Education Programme (SHEP) was launched in 1992 to involve school children in the dissemination of health-related information within and outside the classroom. The aim of the SHEP is to develop and promote an integrated approach to child health.

The Maternal and Child Health and Family Planning (MCH/FP) Unit of the Ministry of Health engages in immunisation programmes as well as many other programmes in the area of maternal and child health.

Since 1996, the Government of Ghana has instituted a programme of four free antenatal visits for mothers and free medical care for children aged under-five. This is to reduce maternal and infant mortality, since it is realised that most expectant women and mothers are not able to utilise biomedical health care facility for themselves and their children due to financial constraints. This situation has tended to delay appropriate treatment at the hospital and clinic leading to avoidable deaths.

The Government of Ghana has not relented in its efforts to prevent and treat malaria. Between 1993 and 1997 the government implemented a 5-year National Malaria Control Programme focused on capacity building for improved disease management at health facilities. Another related programme, the Accelerated Malaria Control Programme was also implemented in 1997. The focus of this programme was to strengthen already existing malaria

programmes such that cause-specific death rate will be reduced, especially, among children. This programme initially covered 30 districts in Ghana (The coastal belt and the areas around the Volta Lake). The programme is now being extended to all the 110 districts under the Roll Back Malaria (RBM) initiative, which focuses on the use of insecticide- treated materials such as bed nets.

The programme to prevent and treat malaria has not achieved the desired impact According to GDHS (1998), only 60.7% of children with fever received anti-malaria drugs. This situation has come about due to the high cost of malaria treatment, inadequate education on preventive strategies, non-adherence to treatment regimes and the low use of bed net for children as a result of its unavailability and high cost.

2.2.2 Food and Nutrition

Over coming the problem of malnutrition among children has also been tackled by Government through the policies implemented by the Ministry of Health. All District Management Teams (DHMTs) have been charged with the responsibilities of monitoring all child welfare clinics and to promote exclusive breastfeeding and nutrition education. The promotion of exclusive breastfeeding is among the baby-friendly clinic programmes initiated by child welfare clinics in Ghana. Exclusive breastfeeding has a legal backing. The Breastfeeding Promotion Regulation (L1 1667) among others, seeks to promote exclusive breastfeeding for infants under six months and also to regulate the sale and marketing of breastmilk substitutes. GDHS (1998) has indicated that exclusive breastfeeding rate for infants under four months and six months were 36.9 percent and 17 percent respectively representing a rise of 2 percent for infants under four months in 1998.

In terms of the promotion of specific nutrients intake among children, the M. O. H instituted a 5-year programme of action (1997 - 2001). This programme aimed at preventing and controlling micronutrient deficiencies such as vitamin A, Iron and Iodine among Ghanaians, especially children (MOH 1996). The Food and Drugs Amendment Act 1997 also seeks to enforce salt iodisation.

Ghana's 2000 National Report on the follow-up to the World Summit for Children has it that, the proportion of households consuming iodised salt rose from 0.3 percent in 1995 to 28 percent in the year 2000. Comparing 28 percent in 2000 with the estimated figures of 100 percent by the year 2001, it can be said that the usage of iodised salt by households is far below expectation. The constraints to the under utilisation of iodised salt are the high cost of iodized salt, non-enforcement of the law, and poor monitoring of iodization project by Food and Drugs Board

In terms of vitamin A deficiency, all Child Welfare Clinics in Ghana are addressing the problem through educational programmes on appropriate diet such as consumption of palm oil and fruits. National Supplementation Exercise has also been carried out.

Ghana's Vision 2020 is another programme that seeks to promote higher nutritional status for all people in Ghana. The focus of the nutritional segment of the Vision 2020 is to accelerate agricultural growth and development strategies (A. A. G.D.S). Under AAGDS, the National Plan of Action on Food and Nutrition (1995 – 2000) was implemented together with UNICEF Food Security and Nutritional Policy (1994-1997). However the Ministry of Food and Agriculture (1999) has indicated that the growth in food production remains far below the population growth rate, raising great concern for food security.

2.2.3 **Protection of Children**

Another strategy by the Government of Ghana to ensure child survival and development is stated in Article 24 of the 1992 Constitution. This guarantees women's right such that there will be special care for them before and after child birth, and also makes provision for facilities for the care of children below school going age. Again women are to be given paid leave (maternal leave). In addition to this, many cultural practices that are detrimental to the survival and growth of children especially the girl child have been banned. For instance, the Criminal Code Amendment Act 1998 (Act 554) seeks to abolish all forms of

customary servitude such as “Trokosi”. Also the Criminal Code Amendment Act 1998 (Act 484) makes the practice of Female Genital Mutilation (FGM) illegal. Ghana’s 2000 Report on the follow-up of the World Summit for Children has stressed that, despite the legislation on cultural practices such as “trokosi,” early childhood betrothal and FGM are still pervasive in Ghana especially in the northern regions. The existence of such practices amounts to violation of the fundamental rights of children.

The protection of children within the family is one of the provisions enshrined in Article 28 of the 1992 constitution of Ghana. The Department of Social Welfare is the principal government agency responsible for family welfare.

According to Ghana’s 1997 Report on the Right of Children, the Department of Social Welfare provides welfare services to children in cases of child neglect, child abuse, juvenile delinquency, child abandonment, adoption and child custody. The 1992 constitution and the Children’s Act 1998 (Act 560) also spells out parental guidance and responsibilities and in this, parents are legally liable to provide the necessities of health, life and reasonable education to the children. In addition to these, state institutions such as the borstal institute, industrial schools for boys and girls, remand homes and children homes provide alternative care for children who for one reason or the other have been removed from the family environment.

2.2.4 **Basic Education and Literacy**

Basic education and literacy are among the constitutional provisions the Government of Ghana has for children. For instance, the Education Act of 1961 (Act 87) made basic education free and compulsory for all children of school going age. The 1992 constitution also provides that basic education should be free, and compulsory and should be available to all children of school going age in Ghana by the year 2005.

In fulfilment of this constitutional provision the Free Compulsory Universal Basic Education (FCUBE) programme was launched in 1996 with the aim of providing quality and efficient education, increasing access to basic education,

and providing basic education for all children of school young age in Ghana by the year 2005.

The Ministry of Education (1996) has noted that lack of instructional inputs, inadequate financing of basic education, shortage and absenteeism of teachers and unbalanced distribution of resources (especially in the rural areas) are among the challenges that face basic education in Ghana. Despite these challenges, the proportion of children of school age attending primary school has increase from 74.11 percent in 1991 to 83.1 percent in the year 2000 (GLSS 2000).

To further enhance access to education, the Ministry of Education established Girls' Education Unit in 1997. The main aim of this unit is to promote female education through the provision of equal access to education, the promotion of educational opportunities, and improving the status of women and girls through increasing girls' enrolment, and reducing the dropout rate for girls.

Another initiative to promote girls' education was the introduction of 'Science, Technical and Mathematics Clinics' for girls in 1987. The aim of this programme is to popularise the study of science and allied fields of study presumed to be the preserve of boys.

Early childhood development of children has not been left out of the educational programme. This provision is in fulfilment of the Children's Act of 1998 (Act 560), which seeks legislation on the operations, and management of day-care centres in Ghana. Unfortunately, inadequate budget allocation for the Early Children Development Units by the Ministry of Education has made it difficult extend early child development services to all communities. This situation has been confirmed Ghana's 2000. National Report on Children.

The Children's Act (Act 560) gives guidelines for apprenticeship training in the informal sector. These include the establishment of minimum age for starting apprenticeship. The Act also spells out the responsibilities of the master craftsman and the procedure for resolution of disputes. However, data

from Core Welfare Indicator Questionnaire (1997) has indicated that about 10 percent of the apprentices in Ghana are below age fifteen and are mostly exploited. Children in especially difficult situation such as street children, disabled children, children in the grips of the law have been protected under the Children's Act, and the 1992 constitution. In the case of street children, the Children's Act 560 prohibits their existence.

2.2.5 **Children in Especially Difficult Situations**

The Department of Social Welfare has been mandated by the Government of Ghana to develop a draft policy on street children. Ghana's 2000 report on children has indicated that the problem of street children is alarming due to increasing rate of poverty, rural – urban migration, dysfunctional families and child abuse. To reduce these, the Criminal Code Amendment Act 554 was enacted in 1998. It protects children less than 16 years of age from sexual abuse. Any carnal knowledge of a child less than 16 years of age with or without her consent amounts to defilement. This act is punishable by a term of imprisonment not less than 5 years with hard labour. A special police unit to handle issues concerning children and women (WAJU) has also been set up. In the case of juvenile offenders, the 1992 Constitution has made a provision for a separate detention facility.

The Criminal Code Amendment Act 1998 (Act 554) has also raised the age of Criminal responsibility from 7 to 12 years. In addition the Children's Act 1998 (Act 560) has advocated for the establishment of child panels in all districts of Ghana.

2.3 **Conclusion**

To promote the well being of children, Ghana currently possesses a comprehensive legal framework for the protection, survival and development of the child. The principal challenge to this framework is the difficulties in the enforcement and implementation of some of the national programmes. Most policies are merely promulgated with little consideration for its implementation and enforcement.

In the next chapter, the social organisation of the people of Larteh will be discussed to help provide the basis for understanding the local context in which childhood ARI is managed.

CHAPTER THREE

THE STUDY AREA

3.0 Introduction

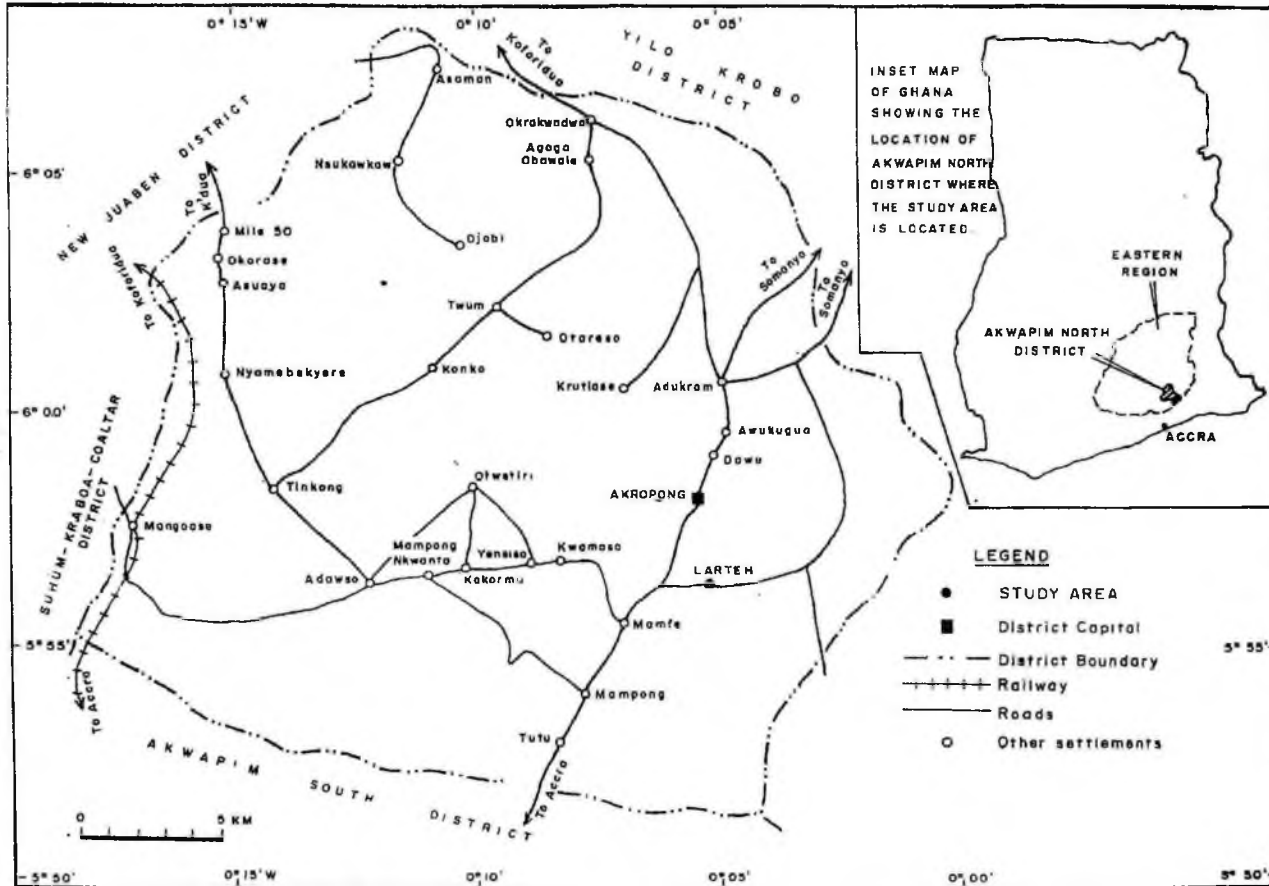
The main concern in this chapter is to describe the social structure of the study area in terms of its geographical location, population structure, historical background, and kinship and family life. Other characteristics described are its economic, religious, and political organisations. It is perceived that these characteristics are very crucial in understanding the ethnomedical perceptions of the people of Larteh on such issues as childhood ARI management and control.

3.1 Geographical Location

Larteh is located 32km from Accra, the capital of Ghana. It is in the Akwapim North District, in the Eastern Region of Ghana. It is situated on a range of mountain called the Akwapim – Togo Range.

The study area is linked to Accra, the capital of Ghana by two second class roads: one which descends the escarpment and goes through the coastal plain to Accra. The other route meanders through the valleys of the Akwapim-Togo ranges through Aburi, then to Accra. Larteh is also accessible to Koforidua the Eastern Regional Capital by a second-class road. Details on geographical location is shown in figure2 below.

FIG. 2 A MAP OF THE AKWAPIM NORTH DISTRICT SHOWING THE STUDY AREA, LARTEH.



SOURCE: TOWN AND COUNTRY PLANNING, DEPT., AKROPONG-AKWAPIM.

3.2 **Population Structure.**

At the time of the study, the 2000 Population Census Report was not ready. Thus based on the projection from the 1984 Population Census Report, the population of Larteh was pegged at about 10,996. It has been estimated that males constitute about 44.3% while the females are about 55.7 percent of the population. This indicates that the female population of Larteh outnumbers that of the males. This finding is consistent with the GDHS (1998), which shows that females outnumber males in the country.

In terms of age composition, it is estimated that children aged less than 15 years constitute 28 percent of the total population of Larteh. This pattern falls below the national figure for that age category which is 44 percent (GDHS1998). This indicates that there is a relatively low fertility level in the study area. People aged between 15-64 (The active labour force) constitute 51 percent while those whose ages are above 65 years constitute 6% of the population. Comparing peoples whose ages are between 15-64 with the other age categories, it can be concluded that the dependency ratio is quite high in the study area.

3.3 **Historical Background.**

The people of Larteh have different meanings to the name of their town (Larteh). The general meaning of Larteh is derived from two Ga words, “La” and “Te” meaning fire and stone, respectively. Literally, Larteh is a formidable town in which its people are seasoned with fire.

Larteh is divided into smaller communities (locally known as ‘Brong’). Each community or group has its own legend regarding its origin. Most people of Larteh settled temporarily on the coastal plains in the sixteenth century. The people of Larteh had to relocate to their present abode because, they needed a very strategic site to ward off their aggressors. In line with this, some local hunters discovered the fertile Akwapim mountain ranges during a drought and their account encouraged the people to move there.

The people of Larteh were said to have been originally scattered in thirty separate communities which later came together for mutual help especially during the time of

war. The people of Kubease were the first group to have moved to the present site followed by people of Ahenease.

After moving up the mountain, the people of Larteh found other Guan communities of Abiriw, Dawu and Adukrom called the Kyerepon. Larteh had close contact with some Twi-speaking communities such as Akropong, Mamfe, Abotakyi, Mampong and Aburi.

In the 16th century all the settlements on the mountain range had no comprehensive political organisation. Each community had its own leader who combined ritual with political office to govern its people. However in 1730 an independent Akwapim State was established when there arose the need to wage war against the Akwamu. In this, Larteh Ahenease became the left wing of the Akwapim State and its chief became the Benkumhene of the Akwapim State.

3.4 **Kinship and Family Life**

Patrilineal system is the main kinship and lineage arrangement practised in Larteh. This is a system where a group of people trace their descent through the male line. A distinguishing feature of this system is that children (sons) inherit their father's property. Daughters are discriminated against in the inheritance of their father's property; they are only allowed to enjoy their father's properties without having ownership of them. It is thought that when daughters are allowed to inherit their father's properties, they will in turn give to their sons who belong to a different patrilineage. The implications of this discriminatory practice of inheritance is to prevent a family losing valuable properties to another family through marriage.

Most people in Larteh are owners of landed properties such as cocoa farms, farm lands and houses. These properties have been bequeathed to them by their fathers. Such properties are mostly found in the cocoa growing areas of Eastern Region such as Suhum, Akorabo, Amede, and Okorase.

The family structure in Larteh is no different from those found in all semi-urban centres in Ghana. They are of two forms, the extended and the nuclear family system. People in the extended family system are made up of the father, mother, children, grand parents, uncles, auntie's, nephews and nieces of the father and mother. Most of the

people in Larteh are not under the direct influence of the extended family system. They are rather closely knit to their immediate family, which is the nuclear family.

There are various forms of nuclear family systems in Larteh. The most pervasive of these forms is the type ,where the two parents live together in the same household with their children. Another form can be seen in a case, where parents live in different households and the children may be living with one parent at a time. Single parenting is another form of nuclear family system. This practice occurs when one parent takes care of his or her children single-handedly.

The majority of children in Larteh do not live within the nuclear family system, but are rather in the extended family set-up. This is due to the fact that most parents have migrated to the cities or near-by villages to engage in economic activities.

3.5 Economic Organisation

The main formal occupations are teaching service; health service and police service. The informal sector workers include traders, farmers, drivers and artisans. Another group of workers in Larteh includes drivers and artisans.

Over 70 percent of the people in Larteh are engaged in agriculture, either as part-time or full time occupation. The main agricultural activity is food crop cultivation supplemented by some selected livestock farming such as rearing of goats, sheep and fowls. A common agricultural practice in Larteh is the shifting cultivation system.

There is little farming on the slopes of the ridge. This is due to soil infertility. Major farming activities take place in the fertile valleys near streams. The farmers practise mixed cropping: cassava farms are interspersed with maize, cocoyam, yams and vegetables.

Almost all farmers observe Tuesday and Friday as non-farming days. These days are regarded as sacred to the earth goddess. Coincidentally, these non-farming days are also market days for the people of Larteh where brisk marketing activities take place.

In terms of commercial activities, there are three main commercial groups in Larteh : the market women, street-vendors and shopkeepers. There are about two hundred

market women who come and sell on every market day. Among these market women are non-natives who come from neighbouring towns. For instance market women from Ga-Adangme area have specialised in the sale of salt, fried fish and vegetables. while those from the Ewe community sell gari. A common phenomenon at Larteh in recent times is that shop keepers do not deal in one defined item but rather in assorted commodities ranging from hard ware through clothes to edibles.

There are about one hundred women whose main economic activities is hawking in all types of goods. There are also other non-natives such as the Hausa traders who sell a great variety of goods.

There is also an important group of artisans in the category of masons, carpenters, tailors and seamstresses, gold, and blacksmiths, drivers, bakers and hairdressers. Hairdressing and dressmaking have become the most dominant occupation for women who want to learn a trade. On the part of the young men, the attractive trades for apprenticeship are tailoring carpentry and masonry. All these artisans have well organised local unions. The purpose of such unions, among others, is to ensure the welfare of their members.

The drivers of Larteh perform an invaluable service to the community, by providing the means of transport of persons and goods. There are fifteen taxi cars and eleven buses owned by people resident in Larteh. Each vehicle has a driver and various assistants, who help in collecting fares or loading, and off loading of goods. The taxi cabs ply between Larteh and Ayikuma and Larteh and Mamfe. Both Mamfe and Ayikuma are at a junction of major roads , so many travellers go by taxi on the first phase of their journey before joining a bus to their main destination.

Larteh can also boast of salaried workers in the area of teaching, health and police. The income of these people, particularly of the teachers, form a substantial proportion of the money generated from the formal sector in Larteh. This is due to the fact that they outnumber other government workers in the town.

3.6 Religious Organisation

Among the important features of Larteh is the profound influence of religion on the inhabitants. As reported by Brokensha (1966), African traditional religion was the first

religion practised by the people of Larteh. Brokensha (1966) indicated that the Danes were the first to introduce Christianity to Larteh in 1788. Christianity and indigenous religions were accommodated. This accommodating tendency, among others, led to the fast growth of Christianity in the town.

As exhibited by almost all traditional societies in Ghana, Larteh has many shrines and deities. In all, there are over fifty shrines with over hundred priests and priestesses in the township. These priests and priestesses perform numerous roles in the town. These range from mediating between the living and the spiritual beings to healing and protection.

There are various Christian groups and churches in Larteh. The Presbyterian church was the first to be established by the Basel Missionaries in 1853 at Larteh. Larteh church history indicated that Methodist, Anglican, Seventh Day Adventist and Salvation Army were all formed by ex-Presbyterians.

Despite occasional defections, the Presbyterian church in Larteh has the largest congregation. Over one-third of the people in Larteh are Presbyterians (Brokensha 1966). Larteh can boast of over twenty churches. Over 80 percent of the people in Larteh are Christians. Christianity was from the earliest days associated with a distinct western-style of living. This has had a very great influence on the people of Larteh especially in the sphere of formal education. Larteh is among the major centres of learning in the Akwapim North District. It has seven primary schools, four junior secondary schools, and two secondary schools. This has given bright educational prospects as well as improved health status to people in the town.

The co-existence of both African Traditional Religion especially the Akonedi shrine with Christianity has given the town a new touch in the sphere of tourism. The Presbyterian and Methodist churches coupled with the Akonedi shrine attract a lot of tourists from all walks of life.

A unique characteristic of these contrasting religions in Larteh is that they have co-existed harmoniously without any major conflict ensuing (Nukunya 1992). This might be due to the fact that the population of Larteh is largely a homogenous one with over

85percent of the people being indigenes who understand themselves and see themselves as one people.

3.7 Political Organisation.

Larteh is made up of two distinct groups; Larteh Ahenease, and Larteh Kubease. The chief of Ahenease is also the Benkumhene that is the leader of the left wing of the Akwapim State. Under his jurisdiction are the towns of Larteh Ahenease and Kubease, Mamfe, Abotakyi, Mampong Obosomase and Tutu. The Ahenease chief has held this position since the foundation of the Akwapim State in 1730. In 1995 an added responsibility was given to him. He was made a paramount chief of the Guan in the Akwapim North and Asuogyaman Districts. Towns under his new jurisdiction include Larteh, Abiriw, Adukrom, Dawu, Anum and Nkonya. The Kubeasehene is also the Kyidomhene or leader of the rearguard of the state of Akwapim.

In Larteh, succession to any traditional political office is based on patrilineal system of inheritance. Under this system, sons in the first birth order (first-born sons) have automatic qualification to succeed their fathers.

The chief of Larteh Ahenease is chosen from the Awurade Brong. The various lineages in the Awurade Brong accede to the throne in rotation.

Political offices are distributed among the brong so that almost all have at least one traditional office. The officers include linguist (Okyeame), treasurer (Sanaahene), custodian of the royal mausoleum (Baamuhene), stool-custodian (Nkonguahene), drummers (Akyeremadefo) and executioners (Adumfo).

The chiefs of Ahenease and Kubease share authority with their council. The composition of the council include the head of each brong, the Mayor or “Mankrado,” the Stool-Father or “Ankobeahene”, Asafohene or the Leader of the Asafo Companies, Linguists or “Akyeame”, and Queen Mother or “Ohemma”.

Chiefs of Larteh, like their Akan counterparts, hold sacred offices because of their link to the ancestors and gods, and because of the black stool they occupy. Any act of disobedience towards a chief is not welcome. However a chief would forfeit his

eneration if he behaves unconstitutionally. The highest form of punishment that could be given to a chief under such circumstances is destoolment.

The functions of the political organisation of Larteh have changed just as it has happened in many other urban societies in Ghana. The reasons for these are that, the central and local government has taken up the administrative and other functions of the chiefs. Notwithstanding this, chiefs in Larteh are very instrumental in mobilising their subjects for self-initiated projects. This function has enhanced the rate of development in the town.

3.8 Development projects.

Several development projects have been undertaken at Larteh. Individuals, groups and the government have initiated some of these. The most remarkable of these projects are those initiated through individual and community participation. Examples of such projects are the private and mission schools.

Larteh has been linked to the national electrification grid since the 1950s. A lot of private houses as well as government organisations such as the schools, clinics, police station, post office, birth and death registry and the markets have been provided with hydroelectric power. Almost every major access route in Larteh has also been fitted with streetlight and this brightens strategic locations in the town at night.

The availability of hydroelectric power at Larteh has facilitated the setting up of a lot of small-scale private ventures such as cold stores, hair dressing saloons, night clubs, bars, and communication centres. The availability of such self-employed ventures has helped diversify employment avenues from the main traditional occupation, which is agriculture. Even though the availability of hydroelectric power has helped to increase employment avenues, the sustainability of such ventures cannot be guaranteed in the future due to the increased cost of electricity in recent times.

Another major social development in Larteh is the establishment of a clinic. This health facility has a bed occupancy capacity of thirty. It also has staff strength of over twenty. The availability of this facility at Larteh has enhanced the accessibility of

patients in their quest for biomedical health care. Patients are now only referred to the District Hospital when they have acute health problems.

The availability of the clinic at Larteh has also come to complement and strengthen the roles of traditional health practitioners. For instance a lot of traditional birth attendants have been trained in safe midwifery practices in the clinic through the collaboration with the District Health Management Team at Mampong Akwapim.

Related to the promotion of health status of the people of Larteh is the provision of pipe- borne water and a public place of convenience by the Akwapim North District Assembly. Standing pipes have been provided at strategic locations in the town. Unfortunately the aim of the government to increase access to clean water at all times in order to reduce the spread of water borne diseases seems to be a mirage due to frequent closure of the pipes. Had it not been for the availability of streams and rivers that run all year, it would be very difficult to live in such a hilly area.

In terms of public place of convenience, Larteh has over twenty of such facilities. These are situated at vantage locations. The Akwapim North District Assembly manages these public facilities but these are not in the best of conditions. The places are breeding grounds infectious and parasitic diseases. This situation has compelled a lot of households to build their own private places of convenience.

Building of schools has also not been left out of the social developmental process of Larteh. The town is among the major centres of education in the Akwapim North District as far as missionary schools are concerned. Apart from the Local Authority Primary School, the remaining six primary and junior secondary schools are owned by christian organisations. Larteh also has two secondary schools of which the Presbyterian Church owns one. This signifies how the early Missionaries (especially the Basel and the Wesley missionaries) were very committed to education. The habit of pursuing education has been instilled into many Christians. It is not surprising to note therefore, that out of every five aged people in Larteh at least three of them can read and write.

Larteh can boast of recreational as well as a commercial centre. There is also a public square at the Benkumhene's palace. The recreational centre and the Public Square are the main places where people meet for important functions in the town.

In the case of hospitality industry, there are three main guesthouses and one restaurant with a countless number of drinking bars. These facilities become very operational at the weekends when a lot of social activities especially funerals take place.

Transport and Communication network development have not been left out in the pursuit of development at Larteh. The town has a second-class road as its main access route even though there are other trunk roads. Larteh is linked to Koforidua the Eastern Regional Capital and Accra the national capital by these second-class roads. There are telecommunication networks at Larteh. Individuals have telephone facilities in their homes and there are about five private business centres that operate telephone services on commercial basis. The availability of good telephone facilities has reduced the rate at which most people travel.

The reasons for the increased rate of social development at Larteh have been that, the inhabitants have a long tradition of communal spirit (Brokensha 1966). Collection of money for the development of social infrastructure has been instituted and those who refuse to pay are sanctioned.

3.9 Conclusion

When the study area is compared with the District Capital, Akropong, Larteh can be said to have improved so much in terms of infrastructure because both Larteh and Akropong have almost the same infrastructural development. Thus, based on this, Larteh is classified among the major towns in the district.

Among the setbacks to development in the town is the inadequate supervision and maintenance of public facilities. For instance, the Local Authority Schools and almost all the KVIPs are in ruins and are a threat to life. There is the need for the members of the community as well as the district assembly to maintain such facilities so as to promote the well being of the people.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS.

4.0 Introduction

This chapter analyses data obtained from respondents, key informants and focus group discussants on childhood ARI. The socio-demographic characteristics of survey respondents are first analysed to help enhance the understanding of the data on local perception and management of ARI.

4.1 Socio-Demographic Characteristics of Respondents

4.1.0 Age

The analysis of respondents' age indicated that the 30-34 cohort was the most dominant. It had a representation of 25percent. Teenage mothers also constituted 7.3 percent. This percentage is too large for a developing economy where health delivery systems are poor and inadequate. There is the need for MC/FP personnel to educate the populace on the dangers associated with teenage pregnancies. The analysis again indicated that 13.7 percent of respondents have aged above 45. The mean age of these mothers was 29years. The age distribution of mothers is shown in table 4.1

TABLE 4.1 AGE DISTRIBUTION OF MOTHERS

Age group	Frequency	Percentage (%)
Below 20	16	7.3
20 – 24	19	8.6
25 – 29	52	23.6
30 – 34	55	25.0
35 –39	28	12.7
40 – 44	20	9.1
45 and above	30	13.7
TOTAL	220	100.0

4.1.1 Parity

The parity of woman under study ranged between 1 and 10 with a mean parity being 2.4. GDHS (1998) has indicated that the total fertility rate for women aged between 15-49 is now 4.6 births per woman. Comparing the mean parity in this study with Ghana's total fertility rate indicates that the fertility of women in the study area falls far below that of the national fertility rate. The fertility pattern in the study area may be due to the relatively higher level of literacy. Mothers with parity 1 constitute the majority. The details of parity are shown in Table 4.2.

TABLE 4.2 PARITY

PARITY	FREQUENCY	PERCENTAGE
1	99	45.0
3	51	23.2
4	39	17.8
5	13	5.9
6	6	3.6
7	6	2.7
10	4	1.8
TOTAL	220	100.0

4.1.2

Twumasi (1975), Baminkale (1997), and Assimeng (1999) have indicated that there is a correlation between the level of education attained and living a healthful life style. Inferring from this, mothers' level of education may facilitate the understanding of their health-seeking behaviour.

The data show that a small percentage of mothers (7.7 percent) have had no education. Over half (63.6 percent) have had basic education (Primary and middle/JSS). A very small percentage (3.6 percent) of mothers have had tertiary education. The mean number of years spent in school is 4.

With reference to Ubomba-Jaswa's (1985) observation that female education begin to impact on their life only when they attend secondary school, it can be said that a small number of mothers (32.8 percent) have secondary education. This situation might be due to the fact that most elderly people in the study area did not have the opportunity to acquire secondary education. This was because during their era, there were few secondary schools in Ghana.

Inferring from Jaswa's (1985) study, it can be said that most mothers in the study area cannot take critical health – seeking decisions or make informed choices on health delivery. This assertion should be taken with caution because the knowledge people have not acquired through higher education only. The table 4.3 shows the educational background of mothers.

TABLE 4.3 EDUCATION BACKGROUND

EDUCATIONAL LEVEL	FREQUENCY	PERCENTAGE
No Education	17	7.7
Primary Education	26	11.8
Middle / JSS	97	44.1
Secondary /Tech.	72	32.8
Tertiary	8	3.6
TOTAL	220	100.0

4.1.3 Occupation.

Evidence from Berman et al. (1997) suggests that female employment and its associated earnings enhance the accumulation of household resources which greatly promote the well being of children.

Information sought on respondents' occupation indicated that more than a third (44.1percent) of the mothers were traders. The percentages of farmers were 14.1 percent while artisans, teachers, and the unemployed formed 12.3 percent, 11.4

percent, and 8.6 percent, respectively. It was observed that while most teachers and health workers have attained secondary education, almost all the traders and artisans had basic or no education. In the case of the farmers, some have higher educational background. These were the retired civil servants who are in agriculture. This category of farmers forms a small percentage of the entire farmers. The occupational distribution of mothers is shown in the table 4.4

TABLE 4.4
RESPONDENTS OCCUPATION DISTRIBUTION

Occupation	Frequency	Percent
Traders	97	44.1
Farmers	31	14.1
Artisans	27	12.3
Teachers	25	11.4
Unemployed	19	8.6
Students/ Apprentices	17	7.7
Health Personnel	2	0.9
Security Personnel	2	0.9
Total	220	100.0

4.1.4 Religious Background

A study into the religious background of respondents is very important because it can facilitate the understanding of health-belief systems in a given society. Omorodion (1993) has confirmed this by indicating that there is a correlation between religious affiliation and the perceived etiology of diseases.

The majority of mothers in the study were found to be Christians (81.8 %). The rest were Muslims (10 percent) and indigenous religion persuaders (8.2percent). Religious affiliation as shown in Brokensha's study of Larteh (1966) is no different from the pattern portrayed in this current study. For instance, in 1961 the population of Christian adults in Larteh was 67percent of

the total population of about 6000 people. The higher percentage of Christians (81.8 %) seem to be an overly representation because most elites think it is inappropriate to openly declare that they are not christians. A confirmation of this is what Brokensha described as “religious window shopping”. This is where people from a different religious group especially Christians undercover go to other religious groups to seek for spiritual help especially in the case of chronic morbid conditions. Seeking for health from spiritualist in the study area has been facilitated by the fact that there is a powerful deity called Akonedi in the town. The existence of Akonedi has attracted many health seekers to the study area.

4.1.5 Ethnic Background

Every ethnic group has defined cultural practices or sub-cultures. The understanding of these practices can help understand the philosophy behind the treatment-seeking behaviours in a given ethnic group. The analysis indicated that the two most predominant ethnic groups were Guan (43.2 percent) and Akan (21.8 percent). The Ewe and Ga-Adangme were 13.6 percent and 11.4 percent respectively. Brokensha’s study in 1966 indicated that the population of Larteh was predominantly a homogeneous one with only 5percent being non-natives. Comparing this current survey with Brokensha’s study, it is seen that the non-native representation in Larteh has increased to over 40 percent. This trend might be due to increased job opportunities, immigration, and inter- ethnic marriages. The increasing rate of non-native representation in the study is very welcome in that different cultural practices especially home management practices that affect children will be learnt.

TABLE 4.5 ETHNIC BACKGROUND OF RESPONDENTS

Ethnicity	Frequency	Percent
Guan	95	43.2
Akan	48	21.8
Ewe	30	13.6
Ga-Adangme	25	11.4
Hausa	2	0.9
Sisala	7	3.2
Gonja	2	0.9
Kokomba	6	2.7
Frafra	4	1.8
Dagomba	1	0.5
Total	220	100.0

4.1.6 Monthly Income Level

A study on household income is very crucial in such studies as health management because it influences the treatment-seeking as well as help determines health care outlet (Berman et al. 1997).

To get data on such sensitive issues as income, mothers were asked to indicate the income brackets in which their income falls. It is thought that respondents will be more comfortable to indicate a range in which their income falls than quoting their actual income. This is because most respondents do not keep financial records on their business. Also most respondents have more than one source of income. Due to these factors it is very difficult for respondents to indicate their actual income.

The income brackets respondents indicated should therefore be accepted with caution.

Over half of the mothers in this study, (68.4percent) indicated that their monthly income is less than ₵200,000 while only 4.0 percent of the mothers monthly income is more than ₵500,000. The implication is that, most of the respondents are economically handicapped. The most vulnerable are those whose monthly income falls below ₵200,000, an income far below the national minimum wage of ₵5,500 per day. It may also be inferred from the above that most mothers in Larteh are quite poor

and for that matter may find it difficult to afford the services at the clinic. The increasing rate of self-medication may also be attributed to poor financial status of the people. The detailed analysis of mothers' monthly income is shown in table 4.7

TABLE 4.6 MONTHLY INCOME

Monthly Income	Frequency	Percentage
<100,000	69	31.4
00,001 – 200,000	78	35.5
200, 001- 300,000	36	16.4
300,001 – 400,000	18	8.2
400,001- 500,000	10	4.5
>500,000	9	4.0
TOTAL	220	100.0

4.2 Infant and Child Morbidity Patterns

In order to get an overview of the types of childhood diseases prevalent in the study area, mothers were asked to list the diseases that had affected their children in the last six months. The idea was to present an overview of childhood diseases in Larteh and to establish where childhood ARI fits. The diseases mentioned were malaria, diarrhoea, cough, cold, skin diseases, intestinal worms, measles and convulsion. To authenticate the disease profile of children provided by the respondents the epidemiological profile of children in the study area were solicited from the clinic. It was based on treated childhood cases at the clinic.

The details are shown in table 4.7 below.

TABLE 4.7 MAJOR CHILDHOOD DISEASES TREATED AT LARTEH CLINIC (1999-2000)

HEALTH	FREQUENCY		PERCENTAGE	
	1999	2000	1999	2000
Malaria	3673	3907	49.5	51.0
Diarrhea	1860	1502	25.1	19.5
Upper respiratory Infections	1278	1632	17.1	21.2
Skin Diseases	273	293	3.7	3.8
Intestinal worms	261	257	3.5	3.3
Minor Accidents	79	93	1.1	1.2
TOTAL	7424	7684	100.0	100.0

In table 4.7, it is indicated that 49.5 percent and 59.0 percent of children reported for malaria treatment at the clinic in 1999 and 2000 respectively. It can be deduced therefore that malaria was the leading cause of childhood morbidity in the study area.

The reported cases of diarrhoea were 25.1 percent and 19.5 percent, respectively indicating that it was the second leading cause of morbidity in 1999 and third in the year 2000.

Upper respiratory infections were the third leading cause of morbidity (17.1 percent) in 1999 and second leading cause of ill health (21.1 percent) in the year 2000.

The least cause of ill-health among children between 1999 and 2000 was accidents in the form of burns, choking, dislocations and fractures.

The ranked order of childhood diseases derived from reported treatment cases at the clinic is shown in table 4.8.

TABLE 4.8
RANKED ORDER OF CHILDHOOD DISEASES

HEALTH PROBLEMS	1999	2000
Malaria	1	1
Diarrhoea	2	3
Upper respiratory infections	3	2
Skin diseases	4	4
Intestinal worms	5	5
Accidents	6	6

(Rank 1 is the highest order while 6 is the lowest order.)

Mothers were further asked to rank the diseases they have listed in the order of prevalence among their children. In doing this they were made to recall within the last six months and to indicate within the period the most prevalent diseases episodes occurred.

The analysis of their responses shows malaria the most prevalent. The second most prevalent disease is upper respiratory tract infections in the form of common cold and cough. Diarrhoea ranks third followed by skin diseases and measles. The least mentioned disease is lower respiratory tract infections.

Inferring from the ranked order of diseases, it is seen that upper respiratory tract diseases are among the three leading causes of ill health among children in the study area. This finding is in line with the GDHS (1998), which indicated that ARI is among the ten leading causes of morbidity and mortality in Ghana.

It can be seen from the above that, upper respiratory infections (cold and cough) are ranked among the three leading cause of childhood morbidity in 1999 and 2000 respectively. Malaria has the highest incidence followed by either diarrhoea or upper respiratory infections and the least cause of morbidity was accident.

The prevalence of childhood diseases in the study area was not determined from the respondents but rather from the medical records from the clinic. This was done because most of the respondents could not recall within the reference period (six months before the survey) the various ailments their children have suffered. Even

though the medical records from the clinic do not give a true reflection of the epidemiological profile of children in the study area because of the existence of other treatment outlets, it is a preferred choice because of its reliability.

4.3 Local Perceptions on the Etiology of Childhood ARI

An important dimension of disease management is the study of people's perception on etiology of diseases because a people's cultural beliefs may influence their health-seeking behaviour. Bamikale, (1997) has indicated that health services may be under utilised and child care instructions may be ineffective or ignored in societies where health officials are insensitive to the people's ideas and behavioural patterns.

To have in-depth information on local perceptions, mothers were asked to identify the local names, nature, as well as the signs and symptom of ARI. The details of these are found in table 4.9. The people of Larteh have no single term in the local language to describe ARI. There are different names for various types of ARI. Cold is locally referred to as iso and cough owa. These are considered mild ailments. The general symptoms for cold includes, running nose, frequent sneezing, wheezy breathing, and restlessness. Asthma, which is locally known as ntehyewa, is regarded as severe type, while pneumonia (efu yewole mo nsene) is the most severe of respiratory tract infections. Pneumonia and asthma have the symptoms of noisy, fast and difficult breathing, running nose, cough, chest in-drawing and inability to eat and sleep.

TABLE 4.9 DESCRIPTION OF ARI.

Approximate Local Name	Approximate Biomedical Equivalent	Symptoms
Iso	Common cold	Running nose, fast breathing, difficult breathing, and inability to eat and sleep
Owa	Cough	Cough
Ntehyewa	Asthma	Noisy, fast and difficult breathing, chest in- drawing, foul breath and cough.
Efu yewole mo nsene	Pneumonia	Cough, running nose, noisy, fast and difficult breathing and inability to eat and sleep.

To help understand mothers' perception on the causes of ARI, prayer camp leader, and nursing officer's perceptions were sought.

Interviews held with a fetish priest and a prayer camp leader (spiritualist) at different times, indicated that there are two main causes of ARI: the natural and the supernatural. Both spiritualists were of the view that demonic forces were the main causative agents for childhood ARI. They indicated that witches could attack newborn babies by giving them either pneumonia or severe cough. They further said that this practice is very common in polygynous marriages. The fetish priest further indicated that childhood diseases of any type could be caused by gods or ancestral spirits as a way of punishing a parent or both for wrongful deed. These results are consistent with the findings of Omorodion (1993) and Orubuloye (1996) on the causes of childhood diseases in Nigeria.

A response on the cause of childhood ARI from a nursing officer in charge of the Larteh clinic indicated that the main cause of childhood ARI is infection caused by a bacterium called the pneumococcus bacillae.

Results from the household interview indicated that more than half of the respondents (54.5percent) perceived childhood ARI to be caused by the cold weather. These mothers were of the view that when cold air enters the head or the chest of a child, that child could have a cough or a cold (upper respiratory infection). They also indicated that when these upper respiratory infections are not treated well and on time they can further lead to pneumonia (lower respiratory infection). These results support the findings of Macfralane et al. (1979) and Allen (1984) in Zambia and Nigeria, respectively, the admission rate of acute pneumonia were twice as high at the end of the dry season as in the middle of the rainy season. Both studies suggest that this may be due to low humidity, which dries nasal secretion and impairs defense mechanisms by reducing local immunoglobulin A (IgaA) activity

Another major cause of childhood ARI was perceived to be children living in unhygienic conditions. This response formed 22.3percent of all the responses of the household interview. It is general knowledge among mothers that children who stay and play in a dusty environment can get cold. Respondents are of the view that indoor air pollution caused by the burning of wood fuel also causes ARI among children.

A very small percentage of mothers (3.2percent) were of the view that poor diet or malnutrition can also cause both lower and upper acute respiratory infections among children. This is especially so when children eat too much of fresh corn. These mothers perception is consistent with Lang et al. (1986) study. A few mothers (4.1percent) also associate the cause of childhood ARI with poor ventilation. They were of the view that poor socio-economic factors compel a lot of nursing mothers to sleep in poorly ventilated and over crowded rooms, which lead to the spread of ARI. Freji and Wall (1997) also found a similar situation in their study in muslim communities in Addis Ababa. About 16percent of mothers did not know the causes of ARI.

Section of respondents, constituting 2.7 percent were of the view that sleeping in a poorly ventilated room coupled with living in an unhygienic environment can be a cause of ARI among children. Only 0.9 percent of respondents indicated that, malnourished children living in unhygienic environment are also prone to ARI. Such children are most susceptible during their weaning period.

TABLE 4.10 PERCEIVED CAUSES OF ARI.

RESPONSE	FREQUENCY	PERCENT
Effects of cold Weather	114	51.8
Living in unhygienic Condition	49	22.3
Don't know	33	15.0
Poor ventilation	9	4.1
Malnutrition	7	3.2
Poor ventilation and living in unhygienic condition	6	2.7
Malnutrition and living in unhygienic condition	2	1
TOTAL	220	100

Focus group discussions were organised as an additional method to solicit information on mothers' perception on the causes of childhood ARI. Discussants were selected from the following age cohort, less than 29, 30-39, 40-49, and those above 50 years. Each cohort was made up of six women. The discussions were originally held in Twi and the general views are summarised below.

The conversations with mothers on the causes of childhood ARI have given a lot of exposition on ethnomedical perceptions. In all the discussions, it was indicated that getting in contact with cold air or cold weather can cause childhood ARI. The main influencing factor was that most mothers are not able to afford adequate clothes and

bedding materials for the children. It is due to this economic constraint that Pio et al (1985) and Snyder and Merson (1982) referred to ARI in developing countries as a “disease of poverty”. Pio et al (1985) have observed that ARI is aggravated by malnutrition and in-door air pollution caused mainly by over crowding at homes. Such factors as malnutrition among children, indoor pollution and over crowding at home could be minimised when the economic well being of families improves.

There is general knowledge among discussants that when children play in the sand or pick dirty objects into their mouths, this can cause cold and cough. This signifies that most discussants were aware that unhygienic conditions at home as well as poor childcare make children susceptible to infections such as ARI. Bulla and Hize (1978) have observed that one-third of deaths among children in developing countries are caused by ARI and are mainly through bacterial infections. Grant (1990) support Bulla and Hize’s assertion that infectious and parasitic disease are the main cause of deaths in Africa. To this end, the discussants were right in saying that poor sanitary condition at home is the main cause of ARI among children in the study area

Some discussants were of the view that when children get in contact with extremely cold weather, they can get ARI. This view has been confirmed by Macfralane et al. (1979) that children getting in contact with extremely cold weather can dry up nasal secretion and impair the defense mechanism by reducing local immunoglobulin A (IgA) activities.

Supernatural causes were among the factors identified during the discussion. Some discussants were of the view that evil spirits can be a cause to childhood ARI. Twumasi (1975) and Omorodion (1993) have stressed that ailments perceived to emanate from magico-religious domain should not be over looked in communities where the respect for traditional beliefs is so high. Assimeng (1991) has also indicated that in almost all Ghanaian communities, it is believed that there is a spiritual part in virtually everything especially in disease causation and management. Inferring from the above, it can be said that however insignificant the role of supernatural forces in disease causation and management, they should not be taken for granted in the quest to control ARI.

4.30 **Religion, Belief and the Perceived Cause of ARI**

A person's faith or religious affiliation is one of the powerful forces that can influence decision – making process (Redlener and Scott, 1979). A mother's religious affiliation is one of the socio-demographic indicators thought to influence health-seeking behaviour.

Table 4.11 shows the details of mothers' religious affiliations and their associated cause of childhood ARI. Mothers in the various religious groups indicated that they did not perceive childhood ARI to be caused by supernatural factors. Also irrespective of their religious affiliations, sought for treatment of childhood ARI from drugstores or hospital. This view expressed by respondents seems superficial because observation at prayer camps and shrines indicated that some mothers covertly seek medical care and protection there.

All mothers' irrespective of their religious affiliations indicated that living in an unhygienic conditions and a very cold weather many cause ARI. Respondents who were muslims as well Christians did not know that malnutrition also causes ARI. Analysis of the responses from muslim mothers and traditional worshippers indicated no significant differences in their responses.

A test of hypothesis was carried out through correlation analysis to establish the degree of association between mothers' religious affiliation and the perceived cause of childhood ARI. The test did not show any statistically significant relationship between the two variables. (Refer to appendix 1). Hence the hypothesis that mother's perception on the etiology of childhood ARI depends on their religious affiliation is rejected

TABLE 4.11 PERCEIVED CAUSES OF CHILDHOOD ARI AND MOTHER'S RELIGIOUS AFFILIATION

Mothers' Religious Affiliation	ETIOLOGY OF CHILDHOOD ARI					
	Living In Unhygienic Conditions	Air Entering The Chest /Effects Of Cold Weather	Malnutrition	Poor Ventilation	Don't Know	Total
Christians	85.7% (42)	84.2% (101)	100% (7)	77.8% (7)	65.7% (23)	81.8% (180)
Muslims	6.1% (3)	8.3% (10)	0%	22.2% (2)	20.0% (7)	10.0% (22)
African tradition worshippers	8.2% (4)	7.5% (9)	0%	0%	14.3% (5)	8.2% (18)
Total	100% (49)	100% (120)	100% (7)	100% (9)	100% (35)	100% (220)

4.4 Preventive Strategies of Childhood ARI

Effective prevention of the spread of any infectious disease demands the control of three important elements: the source (an infected person), the means of spread, and lastly the control of a susceptible host (Coffman, 1995). To determine whether mothers take preventive care of their children with all seriousness, a question was asked whether mothers perceive childhood ARI as a threat to their children's survival. Responses to this question indicated that as many as 80.3 percent of mothers saw childhood ARI as a threat to children's survival.

The study indicates that as many as 67.7percent of mothers prevented childhood ARI through the provision of warm clothing and sufficient bedding materials during the cold times of the day, especially in the morning and the evening. Another 20.9percent of mothers also indicated that keeping and living in a healthy environment was a preventive measure they had adopted to check the spread of infectious diseases such as childhood ARI. There is general knowledge among these mothers that keeping a healthy environment was a sure way of preventing bacterial and viral infection. This is in line with Wall et al.'s (1989) finding that in developing countries bacterial infections was the most prevalent cause of ARI because most people in such countries live in poor environment.

However, a smaller percentage of mothers (1.8 percent) indicated that they sought for spiritual protection from God and gods depending on their faith by subjecting their children to the care of spiritualists (fetish priests and pastors). A fairly high percentage of mothers interviewed (9.5percent) did not know any method or strategy that could be used to prevent ARI. It is likely that these could be mothers who have little or no education.

None of the mothers perceived immunisation against measles and whooping cough as well as giving vitamin A supplements as a way of preventing childhood ARI. There is general knowledge among mothers that immunisation for children builds up the immune system and reduces the incidence of ailment. A study by WHO (1988) on immunisation has indicated that the national pilot immunisation programme against whooping cough and measles initiated at Tanzania reduced pneumonia specific mortality rate by 30percent. This finding is in line with UNICEF's study on immunisation against measles and whooping cough, which found that these programmes have the potential of reducing the incidence of pneumonia in developing countries by 25 percent.

Most focus group discussants were of the view that childhood ARI can be prevented. They indicated that even though the prevalence of childhood ARI seems to peak during cold months, with proper care and handling, it could be prevented. They observed further that it does not take sound financial status of parents to protect the child against ARI and that a good hygienic environment is a major preventive strategy

against ARI. WHO (1987) has affirmed this by indicating that environmental conditions in most developing countries leave much to be desired. For that matter, the incidence of infectious and parasitic diseases is high especially in sub-Saharan Africa.

Most discussants were of the view that the germs that cause ARI are air-borne. As to how to prevent ARI, it was suggested that there was the need to ensure that children do not sleep in a poorly ventilated room and also mothers should avoid sending children to over crowded places such as funeral grounds.

The provision of clothing that can provide warmth in the cold season and regular post-natal clinic of children at the Maternal and Child Health Clinics were also seen as a method of preventing ARI among children.

From the analysis above, it may be said that mothers for the focus group discussion have a fair knowledge of the preventive strategies of childhood ARI. Even though they know that living in a healthy environment can reduce a child's risk of getting ARI, they do not know the conditions under which germs spread. Knowledge of this is very vital in preventing ARI.

A mother's level of education is believed to have a greater influence on her child's survival. This general knowledge supports Ahmed et al's (1991) assertion that basic knowledge and skills acquired through education are essential tools every individual needs to cope better with life's basic needs such as good health. Studies have found positively strong correlation between mother's education and child's survival.

[Caldwell 1979 and Cleland 1990]. A cross tabulation of mother's level of education and preventive strategies for childhood ARI indicates that a significant number of mothers with no education knew how to prevent childhood ARI. For instance, as many as 76.5 percent of mothers with no education knew that they could prevent childhood ARI through the provision of thick clothes for children. Mothers with tertiary educational background also indicated that provision of thick clothes for children as well as provision of healthy environment can prevent the spread of ARI.

Another revelation is that both mothers who have no education and those with post secondary education did not subscribe to soliciting for spiritual protection from spiritualist (fetish priest and pastors) as a measure of preventing childhood ARI.

It has also been found that all mothers irrespective of their educational background did not indicate childhood immunisation and provision of vitamin A supplement as preventive measure for childhood ARI. There is therefore the need for public health educators to map up strategies to correct this knowledge gap. The degree of association established between mothers' educational background and the preventive health care strategies adopted is further

Strengthened through correlation analysis. This analysis was used to test the hypothesis that the type of preventive measures adopted for childhood ARI depends on mother level of education.

This test did not reveal any statistically significant relationship between mother's educational levels and preventive health care strategies. For this reason, the hypothesis is rejected. Details of the correlation analysis are shown in appendix 2.

TABLE 4.13 Mothers Educational Levels and Preventive Strategies for Childhood ARI

Mother's level of education	MOTHERS PREVENTIVE HEALTH CARE STRATEGIES FOR CHILDHOOD ARI				Total
	Protective clothing	Spiritual prayers	Healthy environment	Don't know	
No education	76.5% (13)	0% (0)	11.8% (2)	11.8% (2)	100% (17)
Primary education	63.6% (14)	0% (0)	22.7% (5)	13.6% (3)	100% (22)
Middle / JSS	68% (66)	4.1% (4)	15.5% (15)	12.4% (12)	100% (97)
Secondary	71.4% (50)	0% (0)	25% (18)	2.9% (2)	100% (70)
Tertiary	25% (2)	0% (0)	75% (6)	0% (0)	100% (8)
Total	67.8% (145)	1.9% (4)	21.5% (46)	8.9% (19)	100% (214)

A possible explanation for the rejection of the hypothesis might be that mothers irrespective of their educational background are taught proper care and handling of their children at the Maternal and Child Health clinic (M.H.C.) in the town.

4.5 TREATMENT – SEEKING BEHAVIOUR OF MOTHERS.

Studies have indicated that treatment-seeking behaviour for children varies. It includes home and institutional care, which are either traditional or biomedical in nature (Twumasi 1975; Good 1981 Glik et al, 1989; Malm et al, 1994; and Tamblyn 1996). Fosu (1981) has explained that in Ghana people's perception about disease causation and the nature of the disease affect the method of cure.

Responses from key informants and structured interview indicated that the majority of mothers' self-treat childhood ARI at home for about two to three days after the

symptoms has been identified. Until the ailment becomes serious they do not report at a clinic. This confirms the report in the GDHS (1998), that the use of biomedical facility for the treatment of childhood ARI is low in Ghana.

A key informant (Nursing officer in charge of the clinic) also indicated that most cases of ARI are upper respiratory infections such as cold and cough with a rare case of lower respiratory infections such as pneumonia. She attributed the occurrence of pneumonia to late referral and inappropriate medication at home.

Analysis of the household interview has also indicated that 45.9 percent of mothers manage childhood ARI at home through either the use of drugs and or non – drug treatment. These include hot fomentation, massage with sheabutter or other ointments such as omega oil, inhalation of warm vapour, and nasal installation with oils or herbs.

Another home management practice is the use of drugs especially left-over-drugs used in previous treatment episodes. Some common left over drugs used are cough syrups, paracetamol, septrine and ampicilin. The prevalence of left over drugs at home supports Malm et al (1994) finding that among the Ga-Adangme the prevalence of ARI is mostly due to sub-optimal case management practices which come about due to increased rate of left-over drugs. Home made herbal concoctions such as those prepared from the bark of mango tree is a common oral therapy (Refer to appendix 3).

A group of mothers (13.2 %) indicated that they combined both home management with drug store consultation when their children have ARI. Most of the mothers said that they adopted home management practice such as first aid after which they sent their children to the drug store keeper for medical attention. Another section of mothers also indicated that they home-manage their children for the first three-days but when the ailment persists; they consult the drug store keeper for medical attention.

Respondents were asked to explain why their first-time treatment of ARI was mainly home management practices. Their responses were that it was the most convenient method because there was no need to travel to any health facility for treatment. It was

also reported that most home management practices were less expensive and in some cases involved no cost. All it required was the know - how of the practice.

The combined use of home management practices, drug store consultation and clinic consultation was the treatment-seeking behaviour for 0.5 percent of the respondents. The respondents indicated that they normally supplement home management practices with drug store consultation when their children have ARI but when the affected children are still not recuperating, are sent to the clinic. Reasons for this pattern of health –seeking behaviour were that, sending a morbid child to the clinic called for proper planning in terms of rescheduling of the days activities since almost all the time needed for work will be spent at the clinic. It also called for mobilisation of funds because in most cases medical bills on children at the clinic are higher. For these reasons respondents only sought for medical attention at the clinic when their morbid children are in an emergency situation.

A smaller percentage of respondents (4.1percentage) did nothing to treat such ailments as cold and frequent sneezing among children. These respondents were of the view that it is normal for every child to have upper tract respiratory infections during his or her early stages of development and such ailments are not serious. Some of the respondents were of the view that once a child catches cold, whatever medication mothers administer, the ailment will persist after seven days and there after subsides. In view of these, respondents claim there is no need to time and funds on the treatment of such ailments. Primary health care (PHC) providers need to caution mothers on this perception because it has the tendency to increase case fatalities among children since mothers might not even be able to diagnose the child to determine the cause of his or her ill–health let alone doing any thing about the symptoms the morbid child exhibits.

None of the respondents indicated that they take sick children either to the fetish priest or the prayer camp for medical attention. Observation from the churches indicates that during baptism of children, are subjected to the protection of God. Especially, they are protected from childhood diseases and early death. In like manner, parents who are affiliated to African traditional religion send their children to the fetish priest or priestess for protection against childhood ailments and death. This

indicates that mother's perception about supernatural causes of childhood ailments still exist even though mothers do not openly talk about it.

TABLE 4.12 MOTHERS' TREATMENT – SEEKING BEHAVIOUR

TREATMENT STRATEGY	FREQUENCY	PERCENT
Home management	101	45.9
Drug store consultation	39	17.7
Clinic consultation	31	14.1
Home management and drug store consultation	29	13.2
Home management & clinic consultation	10	4.5
Do nothing	9	4.1
Home management, drug Store and clinic consultation	1	0.5
Total	220	100.0

Two key informants (a drug store keeper and the nursing office in charge of the clinic) recommended that any mother who wants to use the home management practices should have basic knowledge about the practices since lack of knowledge of such practices can lead to accident. For instance, improper posture of children during massaging can cause dislocation and also nasal instillation with herbal concoctions can cause nasal irritation and bleeding. They further disclosed that the commonly used drugs at home for the treatment of childhood ARI, especially upper respiratory infection are cough syrups, B-complex, paracetamol, sulphatrid and septrin. The most frequently used drugs among these collections were paracetamol syrups, cough syrups while the least used drug was septrin. This finding is inconsistent with WHO (1988) recommended treatment of childhood ARI that admonished the prompt treatment of childhood ARI with antibiotics such as septrin. There is no evidence that most children suffering from ARI receive sub-optimal treatment at home through parental prescription of drugs.

4.5.0 HOUSEHOLD INCOME

Studies in health-seeking behaviour have indicated that the size of a family income is a determining factor for health-treatment decisions. In support of this finding Oteng – Ababio (2000) has attributed the declining use of hospitals in Ghana to poor standards of living.

The major source of household income in Larteh is trading. Respondents in this occupation represented 44.1 percent. It was observed that even though most traders were engaged in other minor income generating activities such as farming, they regarded such income generating activities as hobbies. Determining income generated from trading was a problem for almost all mothers because they did not keep records of their operations. A small number of traders admitted that they most often received gifts and remittances from their relatives. This is the case with women traders whose husbands have travelled outside Larteh.

Another source of income identified was through salaries. Only 26.0% of respondents received salary. Almost all the salaried earners were civil servants. Teachers formed the majority of these workers. Most of the salaried workers indicated that their salaries are so meagre that they supplemented it by engaging in other income activities such as trading (For most women) and farming.

Gifts and remittances formed only 8.0percent of the total income received in the study area. Respondents aged above 60 years were the most beneficiaries. It was observed that these mothers depended very much on their children and other family members for their sustenance.

The table below shows the main sources of house hold income.

TABLE 4.13 THE MAIN SOURCES OF HOUSEHOLD INCOME

SOURCES OF INCOME	FREQUENCIES	PERCENT
Trading	122	55.5
Salaries	56	25.5
Farming	22	10.0
Gifts & Remittances	15	8.0
Total	220	100.0

The analysis of household income per month indicated that 74percent of mothers interviewed live in households that earn less than four hundred thousand cedis per month (equivalent to fifty-six US dollars). Observations indicated that most mothers in these households were traders.

It was also found that 17percent of mothers interviewed earned incomes above six hundred thousand cedis per month (an equivalent of eighty-three US dollars). Most mothers in this income bracket were civil servants. Female teachers were the most dominant group in this category. This trend in household income indicates a low standard of living among people in the study area. Table 4.14 below shows the details.

TABLE 4.14 RESPONDENTS' MONTHLY INCOME

INCOME PER MONTH	FREQUENCY	PERCENT
< ₵200,000 \$ 28	77	35.0
₵ 200,001 – 400,000 \$ 28 - 56	85	38.6
₵400,001 – 600,000 \$56 - 83	41	18.6
₵600,001 – 800,000 \$83 - 111	12	5.5
₵800,001 above \$111 - above	5	2.3
TOTAL	220	100.0

(One American dollar is equivalent to ₵7,200 as at June 2001)

The availability of income determines the treatment path mothers consider when their children are morbid. The effects of financial constraints on the choice of health care outlets are felt when a decision has to be taken on a given treatment option based on the perceived cost of treatment and quality of service. Normally, in situations where available household income is less than the estimated cost of treatment, the health seeker has the option to look for money to supplement what is available, or look for another health provider whose estimated cost of treatment is thought to be relatively cheaper.

Analysis of the data (See Table 4.15) indicted that 59 percent of mothers whose household income is less than two hundred thousand cedis per month send their ARI-afflicted children to clinic; 15 percent of them consult herbalists while less than 3 percent of them consult spiritualists.

Comparing the number of respondents who use the clinic for the treatment of childhood ARI, it is seen that over 60 percent of them irrespective of their economic status use the clinic when their children have episodes of ARI. Thus, it can be said that there is no strong relationship between income and the type of treatment sought for childhood ARI.

A further test to show the strength of relationship between the type of treatment and income was undertaken. There was -0.149 relationships signifying that there was a negative correlation between the two variables under study (Ref. to Appendix 4). In line with this, the hypothesis, that the treatment of a child's ARI depends on household income, has been rejected.

TABLE 4.15

HOUSEHOLD INCOME AND THE CHOICE OF TREATMENT OPTIONS

CHOICE OF CHILDHOOD ARI TREATMENT OPTION

Household Income in Cedis	Clinic	Herbalist	Drug Store	Fetish Priest	Pastor	Clinic & Fetish Priest	Clinic & Pastor	Drug Store & Fetish Priest	Drug Store & Pastor	Herbalist & Pastor	Herbalist & Fetish Priest	Total
<200,000	57.3% (43)	14.6% (11)	21.3% (16)	1.3% (1)	1.3% (1)	1.3% (1)	1.3% (1)	0% (0)	2.7% (2)	0% (0)	0% (0)	100% (76)
200,001- 400,000	70.1% (61)	9.2% (8)	16.1% (14)	2.3% (2)	0% (0)	0% (0)	0% (0)	0% (0)	2.3% (2)	0% (0)	0% (0)	100% (87)
400,001 - 600,000	56.9% (27)	4.9% (2)	29.3% (12)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (41)
600,001 - 800,000	100% (11)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (11)
>800,001	100% (5)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	100% (5)
TOTALS	147	21	42	3	1	1	1	0	4	0	0	220

4.6.0 FACTORS AFFECTING THE CHOICE OF HEALTH CARE OUTLET

Another important element in treatment –seeking behaviour is the choice of health care outlet. The decision to choose a particular health care outlet for children can be taken by diverse category of people. This could range from a guardian or parent or both parents, other significant people at home such as the head of the household and the eldest woman in the household and even friends, club or church members, or key personalities in society.

Orubuloye. (1991) has found that most children’s treatment is paid for by one person only, usually a parent and that the treatment chosen is decided upon by that parent bearing the cost. Mencher (1989) have indicated that working mothers are more likely to take health decisions on their children than their husbands. These results are consistent with the findings from the focus group discussions, which indicated that mothers’ employment enhances mothers’ decision-making capacity to choose a health care outlet.

The factors that affect the choice of health care outlet are varied. They include the socio-demographic characteristics of parents (age of parents, level of education attained, marital status, employment status, religious affiliation) nature and severity of illness, affordability of health services, accessibility of health facility, nature of service rendered, perception on the efficacy of drugs etc.

To determine the specific factors that affect the choice of health care outlet for childhood ARI, respondents were asked to answer the questions, “What factors do you consider when choosing a health care outlet for your child suffering from ARI”? The details of their responses are presented in table 4.16 below.

TABLE 4.16 REASONS FOR THE CHOICE OF HEALTH CARE OUTLET

REASONS	FREQUENCY	PERCENT
Affordability of Service	96	43.6
Nature of sickness	46	20.9
Quality of service	34	15.5
Accessibility of Facility	20	9.1
Potency of drug	6	2.7
Nature of sickness and quality service Quality of service	7	3.2
and accessibility of facility	5	2.3
Nature of sickness, affordability of service	4	1.8
Nature of sickness, affordability of service and accessibility	2	0.9
TOTAL	220	100.0

Affordability of service accounted for the highest response (43.6 percent). Using the theory of comparative cost advantage as a basis in explaining this factor, it is assumed that mothers will patronise the health services they perceive to be cheaper as compared to other health services. This situation might be a contributory factor for the increased use of home management practices and drug-store consultation for the treatment of childhood ARI in the study area (Ref. to table 4.12).

Most mothers (20.9 percent) will defy the theory of comparative cost advantage and look out for the nature of the child's ailment before deciding on where to send the child for treatment. This is influenced by whether the illness is severe or mild or is perceived to be caused by either natural or supernatural factors. Most mothers normally treat mild ARI with no seriousness; they adopt a "wait-and-see" attitude coupled with home management practices while severe episodes of ARI are rushed to the hospital or clinic.

Another group of mothers (9.1 percent) considered the nearness to health facility as a decision point to choose a health care outlet. Such mothers normally considered

distance and time to be spent at the health facility. This is based on the assumption that all the target health services are ranked the same in efficiency in health delivery. Thus, the facility where least time is spent is consulted for medical attention.(Ref. to table 4.12)

Quality services rendered at health facility attracted 15.5 percent of mothers when they were making a choice of health care outlets. Western bio- medical health care facility is assumed to provide better diagnosis and treatment than the traditional health practitioners. This greatly explains why most severe ailments are sent to clinic for medical attention and treatment.

Some mothers (3.2 percent) also indicated that any time their children are sick, they determine whether the ailment is mild or severe. When the nature of ailment is severe, they then decide on where they can access quality health care for their children

Another category of mothers, constituting 2.3 percent showed that they considered the quality of service as well as accessibility to health facility before making a choice. Health care providers whose services are regarded as quality are consulted irrespective of distance. In a situation where health providers are ranked the same in terms of quality service, then the nearest facility is consulted.

The nature of sickness as well as affordability of service was concurrently considered by 1.8 percent of mothers when their children have ARI. Anytime a child has cold, the mothers in this category determined whether it is mild or severe and after that consider the available income in order to determine the health facility they can afford.

A small percentage of respondents (0.9 percent) also indicated that they considered the nature of sickness, affordability and accessibility of health facility before making a choice. These mothers said that when their children are severely sick, all they consider is where to find money to pay for estimated bills and there after rush to the nearest health facility.

Respondents in the household survey did not indicate that they considered their socio-demographic characteristics before making decision on the choice of the treatment

outlet. Even though mothers were silent on this factor, the socio-demographic characteristics of mothers was crucial to any decision-making process because the amount of knowledge, skills and information mothers have at any time directly or indirectly relate to their socio-demographic characteristics.

Results from the focus group discussion also indicated that most young parents between the ages of 30 – 40 years considered the cost to be borne as a factor for choosing a health care outlet while most parents above 60 years considered the nature of the illness as a factor for the choice of health care outlet.

4.6.1 Conclusion

Many complex variables and factors influence the choice of health care outlet. Even though affordability and nature of service were among the major factors respondents considered in the choice of health care outlet, there could be other unexplained reasons for the choice of health care. For these reasons no factor should be overlooked in such studies.

CHAPTER FIVE

SUMMARY AND CONCLUSION

The wish of every parent is to have a healthy child who will grow into adulthood. Due to this, many parents are concerned about improving the health status of their children. Governments and other stakeholders have not relented in their effort to improve the health status of children. In Ghana, the health status of children is improving. Between 1957 and 1998, infant mortality reduced from 133 to 54 deaths per 1000 live births (MOH, 1999).

The aim of this study is also to help improve the health status of children by examining how mothers at Larteh manage childhood acute respiratory infections (ARI). The study is also designed to analyse mothers perception on the etiology of childhood ARI, determine ways by which mothers prevent as well as treat the occurrence of the said disease and then to identify the factors that affect the choice of health care outlets. This study in a nutshell is advocating for a new health delivery system for childhood ARI that will take into account the social and the cultural background of the patient and their immediate environment into consideration.

To help understand mothers' beliefs, attitudes and practices towards the management of childhood ARI, the social structure of the study area was studied. Larteh is among the major towns in the Akwapim North District. It is a Guan community and it is accessible to Accra, the national capital, and Koforidua, the regional capital by a second-class road. Larteh is a fairly homogenous community constituting about 75 percent Guans and 15 percent non-natives. The non-natives have been associated with this town through marriage and work. The main occupation of this town is farming. Almost every household in this town has a farm.

The population composition is predominantly made up of children below eighteen-years and the aged (above 55 years). Majority of the working population have migrated to near-by villages, towns and cities for employment. Due to this, most households in Larteh depend on remittances from relatives outside the towns.

There has been a considerable amount of social change in this township due to the influence of formal education, christianity, tourism and the use of allopathic medicine. Notwithstanding these changes the Akonedi Shrine is still formidable.

The following findings have been made in line with mothers' attitudes and practices concerning the management of childhood ARI. And they are: -

1. Childhood ARI is ranked the third major cause of morbidity and mortality after malaria and diarrhoea. It is seen as a threat to the survival of children but most mothers do not know the signs and symptoms of lower respiratory infections, which is the most serious form of respiratory infections. The inability to identify danger signs normally lead to delay in seeking prompt treatment from clinics. The delays are among the major cause of death of children since most children are brought in an emergency situation.
2. Mothers have much knowledge on the etiology of childhood ARI. Most of the mothers are aware that getting into contact with cold air or cold weather and living in polluted environment can cause ARI.
3. There is a belief that demonic forces can also cause childhood ARI. For this reason most mothers covertly seek spiritual protection and treatment from spiritualists. Consultation of spiritualists is among the treatment paths in the study area.
4. Respondents did not know that missing EPI immunisation, vitamin A deficiency and low birth weight are among the causes of childhood ARI. There is the need for community health care nurses to intensify public education on this issue.
5. Irrespective of mothers' socio-demographic background, they know how to prevent the occurrence of childhood ARI. This is due to the fact that MOH/FP personnel educate all pregnant mothers on preventive care when they come for medical review.

6. Mothers adopt home management practices by using drugs for two or three days. Until the child gets worse mothers do not send their children to the clinic for medical attention.
7. Mothers combine the use of home management practices with other treatment regimes. The most frequently used practices are hot fomentation followed by massaging with shea butter after which the child is either sent to drug store or clinic for medical attention.
8. Drug-store consultation is the second major treatment outlet for childhood ARI with the most frequently used drugs being paracetamol syrup and chloroquine syrup. Due to this pattern of treatment, parental prescription of drugs is also high among mothers.
9. Mothers, especially working mothers, (not fathers) most often take health care decisions on children. Most fathers have migrated to neighbouring towns and villages to work. Due to this, most of the time they are absent from home. A section of mothers are also single parents.
10. Mothers consider the cost to be borne at a health care outlet before choosing that facility. These situations in part, explain why home management practices and drug-store consultation, which are thought to be cheaper, are important treatment outlet in the study area.
11. There is no statistically significant relationship between mothers religious affiliation and mothers perception on the cause of childhood ARI
12. There is no statistically significant relationship between mothers' education and the preventive health care strategies adopted.

The findings from this study suggest practical implications for health administrators and all stakeholders in the health delivery

This study has found out that most mothers do not know the symptoms or life-threatening signs of childhood ARI, which are mostly symptoms of lower respiratory

infections. This situation has led to incidents where most mothers delay sending children suffering from ARI to clinic for medical attention. There is, therefore, the need for MOH to educate the public especially mothers on the danger signs of ARI. When this public education programme is undertaken it will help enhance prompt treatment of ARI at clinics since mothers will not delay on seeing the danger signs of childhood ARI. The education could be integrated into the post neo-natal counselling given to lactating mothers. Other health care providers such as drug store keepers, herbalists, spiritualists and traditional birth attendants should also be educated on the danger signs of ARI so that any time they identify such signs and symptoms they can recommend a transfer to a clinic or hospital for care.

There is the need for collaboration among MOWAC, MOH, and NCCE on the education of the general public on the risk factors of childhood ARI. This study has indicated that mothers did not know that missing EPI immunisation, Vitamin A deficiency and low birth rates can predispose children to ARI infections. Until the general public especially mothers are educated on such preventive strategies, no intervention adopted can achieve any meaningful results.

To ensure the rational use of drugs, NCCE, Ghana Food and Drugs Board in collaboration with Ghana Pharmacy Council need to create general awareness among Ghanaians on drug use in general, and dosage, frequency and duration of medication in particular. Information also needs to be given about side effects and toxicity of drugs and the need for standard labelling of drugs.

To make over-the-counter drugs safer for patients, drug supervisory agencies such as Ghana Foods and Drugs Board as well as Ghana Pharmacy Council, need to strengthen their supervisory roles so as to flush out all uncertified drugs either herbal and orthodox form all shops in order to reduce accessibility to such drugs.

The study also indicated that most mothers are not able to patronise the services rendered at the clinic due to the problem of higher cost. This situation in part explains the increased use of home management practices and drug store consultation in most households in recent times. To reverse this pattern in treatment-seeking behaviour, it calls for all stakeholders in the health delivery system to review the current methods

of paying for such services and if possible find an alternative method of paying for treatment received at the clinic. In this wise, mutual health scheme is recommended as an alternative method of paying for health services.

For home management practices to be an effective treatment practice for childhood ARI, there is the need for MOH to clinically analyse all the known practices identified to be detrimental to the health of children. Such practices should be discouraged while those that are certified to be healthful encouraged.

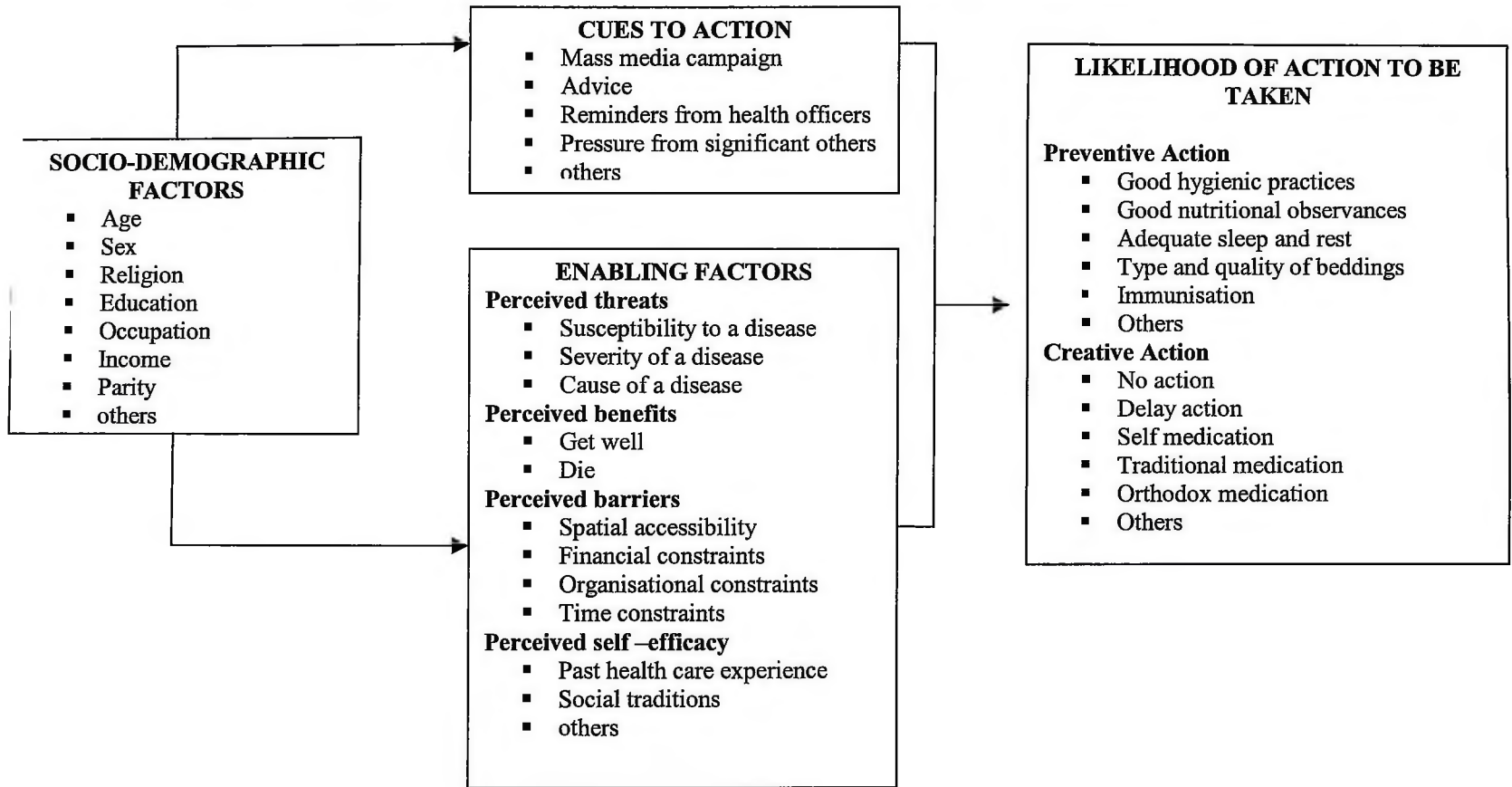
Area for further research

This study found among other things that, the level of knowledge about life-threatening symptoms of childhood ARI and rational use of drugs are very low among mothers and caretakers. A study can be carried into alternative ways of improving health education among mothers and caretakers on symptom identification and recommended health practices for the effective management of childhood ARI.

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FIG. 1

**HEALTH BELIEF MODEL SHOWING THE INTERRELATIONSHIP AMONG
FACTORS WHICH INFLUENCE MOTHERS MANAGEMENT OF CHILDHOOD DISEASES**



APPENDICES

APPENDIX 1

TEST OF HYPOTHESIS ON RELIGIOUS AFFILIATION AND THE CAUSE OF CHILDHOOD ARI

	Value
Spearman Correlation	.114
No. Of Valid Cases	220

(Figure for the test was arrived by computing the religious affiliation and the perceived cause of childhood ARI through Spearman correlation)

APPENDIX 2

TEST OF HYPOTHESIS BETWEEN MATERNAL EDUCATIONAL AND PREVENTIVE HEALTH CARE STRATEGIES FOR CHILDHOOD ARI.

	Value
Spearman Correlation	0.018
No. Of Valid Cases	220

(Figure for the test was arrived at by computing respondent's educational levels with their perceived preventive health care strategies through Spearman correlation.)

APPENDIX 3

HOME MANAGEMENT PRACTICES FOR CHILDHOOD ARI

TYPEOF ARI	HOME MANAGEMENT PRACTICES
Cough, and Cold	
	1. Hot Fomentation
	2. Massage with shea butter or omega oil
	3. Inhalation of vapour from warm water and herbal concoction
	4. Nasal instillation
	1. Use of left-over-drugs
	2. Parental prescription of drugs (herbal and bio-medical)

APPENDIX 4

**TEST OF HYPOTHESIS OF MOTHERS TREATMENT-SEEKING
BEHAVIOUR AND HOUSEHOLD INCOME PER MONTH**

	Value
Spearman correlation	-0.149
No. Of Valid Cases	220

(Figure for the test was arrived at by computing respondents treatment-seeking with their household income per month through Spearman correlation)

APPENDIX 5
QUESTIONNAIRE

MANAGEMENT OF CHILDHOOD ACUTE RESPIRATORY INFECTION
AMONG THE PEOPLE OF LARTEH

This Questionnaire has been designed purposely for academic work and your kind co-operation is humbly solicited.

The aims are to find your beliefs, attitudes and knowledge on the courses of Acute Respiratory Infection, methods of preventing as well as treating such disease and your choice of health care outlets.

Thank you.

A. BACKGROUND DATA FOR MOTHERS

1. How old are you?

2. What is level of education?
 - i. No Education
 - ii. Primary School
 - iii. Middle/JSS
 - iv. Secondary
 - v. Tertiary
 - vi. Others

3. What is your marital status?
 - i. Single
 - ii. Married
 - iii. Separated
 - iv. Divorced
 - v. Widowed
 - vi. Others (Specify).....

4. How many children do you have?.....

5. What is your relationship to the youngest child under your care now?
 - i. Biological child
 - ii. Adopted child
 - iii. Foster child
 - iv. Sibling
 - v. Others (Specify)

6. What is your main occupation?
- | | |
|-------------|------------------------|
| i. Farming | iv Teaching |
| ii. Trading | v. Student/ Apprentice |
| iii Artisan | vi Unemployed |
| | vii Others(specify) |
7. Indicate the range in which your monthly income falls
- | | |
|------------------------|-----------------------|
| i. less than 100,000 | iv 300,001 – 400,000 |
| ii. 100,000 – 200,000 | v. 400,001- 500,000 |
| iii. 200,001 – 300,000 | vi. More than 500,000 |
8. What religious denomination do you belong to?
- | | |
|-----------------------------------|------------|
| i. Christian | iv. Others |
| ii. Islam | |
| iii. African Traditional Religion | |
- 9 Which ethnic group do you belong to?
- | | |
|----------|--------------------------|
| i. Guan | iv Ga-Adangbe |
| ii. Akan | v Non – Ghanaian |
| iii. Ewe | vi. Others(Specify)..... |

B. DATA ON BELIEFS AND PERCEPTIONS ON THE ETIOLOGY OF ARI

- 10 Has your child got sick over the last six months? (i) Yes (ii) No
- 11 If yes, what were the diseases or symptoms he/she exhibited.
- | | |
|-----------|------------|
| i. | iv. |
| ii. | vii) |
| iii. | viii. |
| iv. | ix. |
| v. | x. |
- 12 What do you think or know to be the cause for your child’s ARI.
- | | |
|-----------|------------|
| i. | vi. |
| ii. | vii) |
| iii. | viii. |
| iv. | ix. |
| v. | x. |

13. From the causes in (12) above, list three prevent causes for the said symptoms among children
- i.
 - ii.
 - iii.

C. PREVENTIVE AND CURATIVE HEALTH CARE STRATEGIES

14. Do you consider ARI as a threat to the survival of your child? (a.) Yes (b.) No

15. Explain your choice of response in (14) above

.....

.....

.....

.....

16. How do you prevent your child from getting ARI

.....

.....

.....

.....

17. When your child get ARI, how do you treat his/her ailment in the first instance?

.....

.....

.....

18. When your child's ARI symptoms persist, what do you do to save the child's life?

.....

.....

.....

19. What factors do you consider when choosing a health care outlet for your child suffering from the ARI

.....

.....

.....

D. ECONOMIC CONSIDERATION IN THE HEALTH CARE PRACTICES

20. What are the main sources of income available to the household ?
- i. Salaries
 - ii. Trading
 - iii. Farming
 - iv. Others (Specify)

21. When all the sources of income in your household is put together, indicate the range in which your household income falls per month

- i. Less than ₵200,000.00
- ii ₵200,001.00 - ₵400,000.00
- iv. ₵400,001.00 – ₵600,000.00
- v. ₵600,001.00 – ₵800,000.00
- vi. ₵800,001.00 – ₵1,000,000.00
- vii. More than ₵1,000,000.00

22. Do the charges you pay for the treatment of your child’s ailment, commensurate with the health services received for your child? a.) Yes b.) No

23. If the response in (22) above is yes, how did you know that the cost paid does not match with health services received?

.....
.....
.....

24. If the response in (22) above is No, how can the health services be improved?

.....
.....
.....

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