

**KNOWLEDGE, ATTITUDES AND PRACTICES OF NURSES TOWARDS  
PREVENTION OF CHILDHOOD BLINDNESS AT MANSA GENERAL  
HOSPITAL**

**BY**

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HOSPITAL**

*"If therefore the light that is in thee be darkness, how great is that darkness"*

*(King James Version bible)*

**BY:**

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## LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ASEAN	Association of Southeast Asian Nations
CBHOH	Central Board of Health
CEB	Childhood Blindness
CHV	Community Health Volunteers
CSO	Central Statistical Office
DHMT	District Health Management Team
DM	Diabetes Mellitus
DR	Diabetes Retinopathy
DRC	Democratic Republic Of Congo
EHTs	Environmental Health Technicians
ENs	Enrolled Nurses
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
MGH	Mansa General Hospital
MoH	Ministry of Health
NEI	Nutrition Education Intervention
NGO	Non Governmental Organizations
PBN	Post Basic Nursing
PHC	Primary Health Care
PHC	Primary Health Care
RNs	Registered Nurses
ROP	Retinopathy of Prematurity
T.E.O	Tetracycline eye Ointment
UNZA	University of Zambia
UTH	University Teaching Hospital
WHO	World Health Organization
ZDHS	Zambia Demographic Health Survey

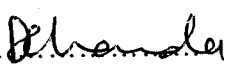
**DECLARATION**

I, Chapima Fabian hereby declare that the work presented in this study for the Bachelor of Science in Nursing Degree has not been presented either wholly or in part for any other Degree and is not currently submitted for any Degree.

Signed  .....

**CANDIDATE**

Date.....07 . 05 . 09.....

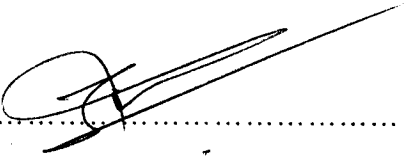
Approved ..... .....

**SUPERVISOR**

Date.....16/06/09.....

**STATEMENT**

I hereby certify that this study is entirely the result of my own independent investigations. The various persons and sources to which I am indebted are clearly indicated.

Signed.....

## **ABSTRACT**

The aim of this study was to determine knowledge, attitudes and practices of nurses at Mansa General Hospital towards prevention of childhood blindness.

The reason to undertake this study emanated from the long working experience of the Researcher at Lubwe Mission Hospital in Sanfya District of Luapula Province in Eye Clinic. It was observed that, nurses took little on no step in the prevention of childhood blindness.

In Zambia childhood blindness is one of the major health problems. Statistics obtained from Mansa District Action Plan 2006 indicates that, the prevalence of eye infections (175.2/1000 in 2005) in Mansa is high and eye infections are one of the top ten causes of morbidity in the under five children. Most of these eye infections cause blindness.

Globally, regional and national literature review has shown that blindness is a major health concern worldwide and that Researchers from all parts of the world are trying to find ways of reducing the prevalence of childhood blindness. Most of the studies which have been done have concentrated mainly on the consumers of eye care services while others on eye care workers. However, little is known about the level of knowledge, attitudes and practices towards eye care in non eye specialist health workers world wide especially at this time when integrated eye care is being promoted world wide.

The main factors that may affect practice of nurses towards prevention of childhood blindness may be service related, disease related, socioeconomic and cultural factors. Low levels of knowledge, negative attitude, training in primary eye care, placement of nurses and institution policies among others may contribute to the poor practices of nurses in prevention of childhood blindness.

A descriptive cross sectional study design with both qualitative and quantitative dimensions was used in this study with the help of a self administered questionnaire to collect data from the respondents.



The study population were nurses at Mansa General Hospital. A probability sampling method called simple random sampling using the lottery technique was used to select the sample. The sample size for this study comprised of 50 nurses. Data was collected between 1<sup>st</sup> and 30<sup>th</sup> September, 2008.

The sample included 50 nurses aged between 21 to 60 years old of which the majority (26%) were in the age ranging between 41-45 years while (22%) were between the ages of 36-40 years. The majority of the respondents (76%) were females. Most of the respondents (50%) were Enrolled General Nurses while (20%) were Registered General Nurses. The majority of the respondents (22%) had been in service for 13-17 years while (20%) of them had served for 18-22 years.

The most striking finding in the study was that, the majority of the respondents (96%) had poor practice towards childhood blindness.

The study revealed that low levels of knowledge (44%) and lack of policy and guidelines on prevention of childhood blindness (56%) were some of the factors among others that contributed to poor practice of nurses on prevention of childhood blindness.

In view of the research findings, the following are the major recommendations which have been made to the Ministry of Health and the Hospital Management: The Ministry of Health should ensure that, policies on prevention of childhood blindness are formulated and disseminated to all health institutions. MoH should embark on training nurses on the prevention of childhood blindness through work shops and in service training for the programme to be successful.

The Hospital management should formulate hospital policies on prevention of childhood blindness and ensure that all nurses have guidelines to follow in the prevention of childhood blindness. The Hospital Board of Management through the in-service department should plan and conduct in-service training programs to acquaint nurses with knowledge on how to prevent childhood blindness.

## **CHAPTER 1**

### **1. INTRODUCTION**

#### **1.1 BACKGROUND INFORMATION**

Zambia is a land locked country, located in the southern part of the Sub-Saharan African region and sharing borders with eight countries, namely: Democratic Republic of Congo (DRC) and Tanzania in the north; Malawi and Mozambique in the east; Zimbabwe and Botswana in the south; Namibia in the southwest and Angola in the west. The country covers an area of approximately 752,614 Square Kilometers, with an estimated population of 11.7 million people (UNAIDS, 2006).

The country's socio – economic status is characterized by a weak economy, with under developed infrastructure, particularly transport and communication infrastructure in rural areas, high levels of unemployment and poverty prevalence among its population and significant resource constraints. However, it has good arable land, good weather and is rich in minerals and natural resources which all offer significant potential for meaningful socio – economic development.

Administratively, the country is divided into nine provinces and 73 districts. Out of the nine provinces, two are predominantly urban, namely Lusaka and Copperbelt Provinces. The remaining provinces (Central, Eastern, Northern, Luapula, North-Western, Western and Southern) are predominantly rural provinces.

##### **1.1.1: Socio – Economic Environment Profile for the Zambian Child**

The Zambian child is a child who faces a variety of health challenges. Poverty is a giant to win. 50% of the adult population suffer unemployment. Parental poverty affects the health status of their children. Currently, the life expectancy at birth is at 37 years.

The average national literacy rate in 2001-02 was estimated at 65.1% (ZDHS 2001-02). In all the age groups, literacy levels for men were higher than for women. The total literacy level for men was 81.6%, against 60.6% for women. Literacy levels were also higher in urban areas (79% for

women and 91% for men) than in rural areas (48% for women and 76% for men). Poor literacy levels, especially among the females and rural dwellers, has adverse implications on health service delivery as it presents difficulties in communicating health related messages and programmes.

With HIV/AIDS on the horizon it is calculated that two million people in Zambia are infected with HIV/AIDS. HIV/AIDS lead to deaths of parents leaving their children either single or double orphans. Most orphans suffer neglect which may lead to poverty and subsequent malnutrition.

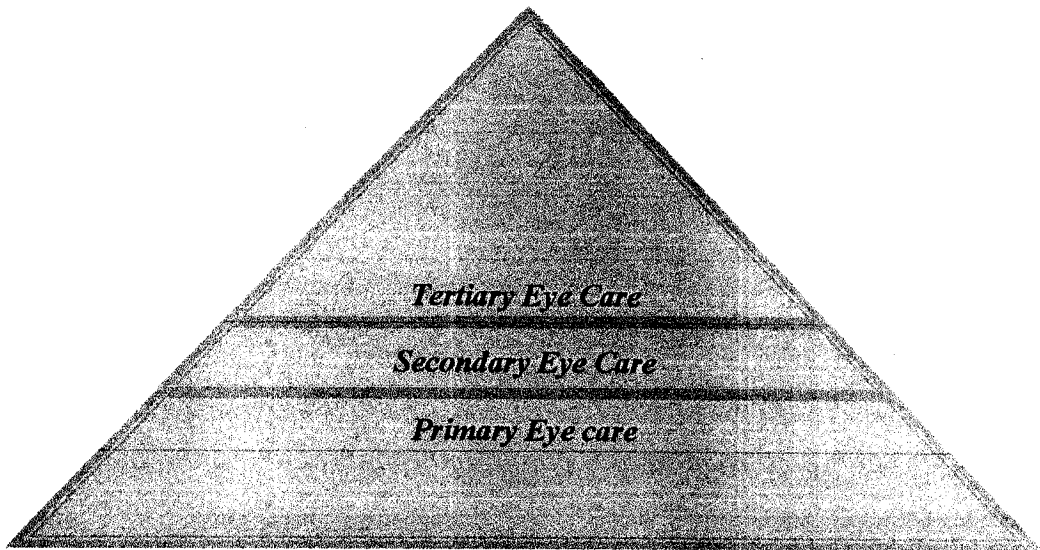
The basic health needs are another important challenge. These are access to safe drinking water and adequate sanitation facilities. Deficiencies in these health needs, predispose a Zambian child to health problems such as diarrhoea and malnutrition which may lead to blindness as a result of Xerophthalmia.

#### **1.1.2: Provision of Quality Visual/ Eye Health Related Services in Zambia**

The Ministry Of Health has no policy on eye health, but it is yet to develop one. However, the Ministry of Health has developed a Five-Year National Eye Health Strategic Plan. The Eye Health Strategic Plan would be implemented within the framework of Health Vision, Goals and Policies in the National Strategic Plan 2006-2010.

The PixiFoto Foundation Blindness Prevention Project in partnership with Operation Eyesight is a key component of the Zambia National Primary Eye Care Program. Primary Eye Care is the essential base of a comprehensive eye care system. This is referred to as the pyramid of eye care with the base being primary eye care, the centre being secondary eye care and the top being tertiary eye care. Without a base of primary eye care, the delivery of secondary and tertiary eye care are difficult and expensive (and far less cost effective). Approximately 90% of the eye care needs in Zambia can be effectively addressed at the Primary Eye Care level. The diagram on page 3 illustrates the pyramid of eye care.

**Figure 1:**     *Pyramid of Eye Care*

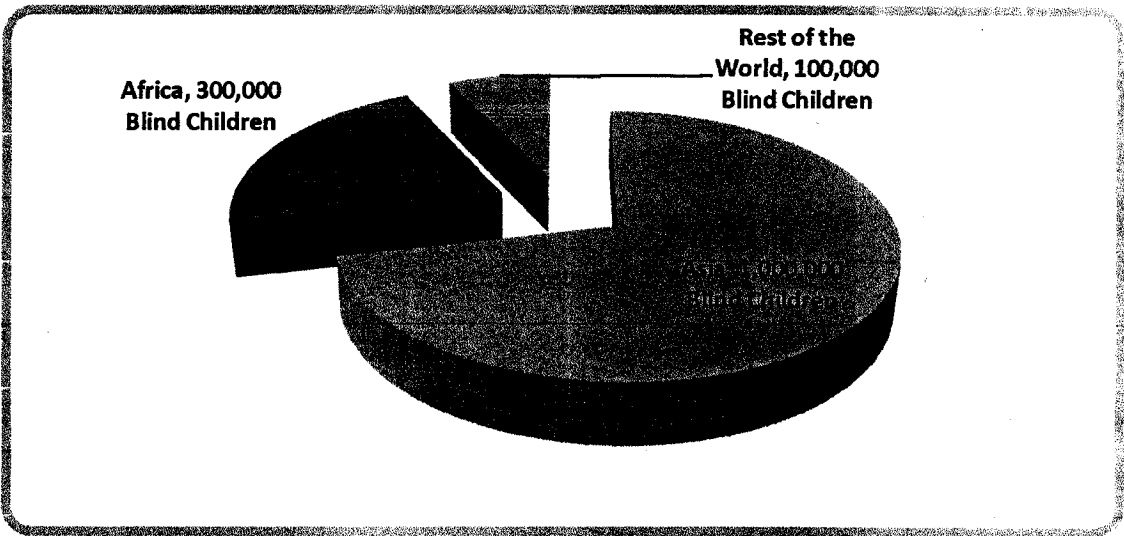


Each of these elements in the pyramid is linked. The loss of or failure to implement any one of these key components will result in the likely failure of the other two. For an integrated Primary Eye Care program to succeed, it requires the coordinated implementation of each of these components.

**1.1.3: Overview of Eye Problems in Children**

Childhood blindness is a global problem. WHO Fact Sheet No 214, estimates that, there are 1.4 million blind children in the world, 1 million of whom live in Asia, 300 000 in Africa and 100,000 to be shared in other developed countries. The prevalence ranges from 0.3/1000 children aged 0–15 years in affluent countries to 1.5/1000 children in very poor communities which includes Zambia. Although the number of blind children is relatively low, they have a lifetime of blindness ahead, with an estimated 75 million blind-years (number of blind people × length of life). The diagram on page 4 shows the distribution of childhood blindness globally.

**Figure 2:      *Distribution of Childhood Blindness Globally***



The diagram above shows that Asia is the most affected region accounting for 1,000,000 (72%) of childhood blindness, Africa (Sub – Saharan countries) accounts for 300,000 (21%) while the rest of the world accounts for 100,000 (7%).

The same report showed that 500 000 children become blind each year (nearly one child per minute). Many children who become blind die in childhood from the underlying cause, such as measles, meningitis, rubella and prematurity. Most blind children are either born blind or become blind before their fifth birthday. Owing to demographic differences, the number of children who are blind per 10 million populations varies from approximately 600 in affluent countries to approximately 6000 in very poor communities. About 40% of the causes of childhood blindness globally are preventable and or treatable.

**1.2:    STATEMENT OF THE PROBLEM**

Globally, there are estimated to be 1.4 million children who are blind, and around three quarters live in developing countries. 100,000 cases are in developed countries where eye care services are advanced in terms of technology, infrastructure and staffing. One million cases are in Asia. Asia takes the huge percentage of childhood blindness. It accounts for 72% of the total world

childhood blindness. The prevalence is estimated to be 1.5/ 1000 children aged 15 years and below. The causes of childhood blindness world wide vary, but the main avoidable causes are:

- Scarring of the cornea in Africa and poorer countries in Asia;
- Cataract and Glaucoma everywhere;
- Retinopathy of prematurity in high- and middle-income countries and some cities in Asia;
- Refractive errors occurs everywhere, but particularly in South-East Asia; and
- Low vision, which encompasses visual impairment and blindness from untreatable causes, occurs in all regions.

Regionally, there are 300 000 cases which are in Africa (Sub-Saharan Countries). According to the study conducted by Gilbert *et al* (1999), it identified that the prevalence of childhood blindness ranged from 0.5 to 1.1 per 1000 children below 15 years with the highest prevalence reported in an area in Malawi, once known for vitamin A deficiency. In general, the prevalence of childhood blindness is related to the general level of nutritional care of infants and young children. It is estimated that countries with under 5 mortality rates in excess of 170/1000 children have a prevalence of childhood blindness in excess of 1/1000 children, while those with under 5 mortality rates below 30/1000 children have a prevalence of 0.2-0.5/1000 children (Gilbert *et al*, 1999).

In Zambia childhood blindness is one of the major health problems. Zambia has a prevalence of blindness of 1% of the total population which means, there are 117,000 blind persons in Zambia (Mutati, 2007). Ninety percent of these cases of blindness are preventable. The major cause of childhood blindness in Zambia has been identified as congenital cataract and corneal opacities due to: measles, vitamin A deficiency, traditional eye medication, ophthalmic neonatorum, ocular injuries and trachoma. Trachoma is common in Gwembe valley while Vitamin A deficiency is common in Luapula Province which is the study location.

In Luapula Province, childhood blindness contributes 5% to the total blindness in the Province (Mansa General Action Plan, 2007). This gives the total number of 500 children who are blind. According to the statistics obtained from the eye department at Mansa General Hospital, Luapula province has a population estimate of 1,000,000. The prevalence of overall blindness in Luapula

Province stands at 1% of the whole population in the province which gives the total number of blindness 10,000. The main causes of blindness in Luapula are cataract (bilateral) 50% (5,000), corneal scaring 25% (2,500), glaucoma 15% (1,500), childhood blindness all causes 5% (500) and others 5% (500). Table 1 below summarizes the main causes of blindness in Luapula Province.

**Table 1:**        *The Prevalence of Blindness in Luapula Province in Relation to the Main Causes*

<i>CAUSES OF BLINDNESS</i>	<i>POPULATION AFFECTED</i>	<i>PERCENTAGE</i>
<i>Bilateral Cataract</i>	<i>5,000</i>	<i>50%</i>
<i>Corneal Scaring</i>	<i>2,500</i>	<i>25%</i>
<i>Glaucoma</i>	<i>1,500</i>	<i>15%</i>
<i>All Causes of Childhood blindness</i>	<i>500</i>	<i>5%</i>
<i>Other Causes</i>	<i>500</i>	<i>5%</i>
<i>TOTAL</i>	<i>10,000</i>	<i>100%</i>

*Source: Mansa General Hospital Eye Department, 2008*

The table above shows that the cause of blindness in 50% of the total population is bilateral cataract followed by corneal scaring affecting 25% of the population. Childhood blindness contributes 5% to all blindness in the province. This gives the total number of 500 children who are blind.

Although the actual number of children who are blind is much smaller than the number of adults who are blind as indicated in table 1, (e.g., from cataract), the number of years lived with blindness by blind children is almost the same as the total number of ‘blind years’ due to age-related cataract.

Statistics obtained from Mansa District Action Plan 2006 indicates that, the prevalence of eye infections in Mansa is high and eye infections are one of the top ten causes of morbidity in the

under five children. Table 2 on page 7 shows the top ten causes of morbidity and there prevalence from 2003 to 2005.

**Table 2:       Top 10 Causes of Morbidity (Under fives) by year**

No.	Year 1→ 2005		Year 2→ 2004		Year 3→ 2003	
	Disease	Incidence	Disease	Incidence	Disease	Incidence
1.	Malaria	1564	Malaria	1591	Malaria	1472
2.	R.I non Pneumonia	453.6	R.I non Pneumonia	451.6	R.I non Pneumonia	434
3.	Diarrhoea non blood	289.2	Diarrhoea non blood	292.4	Diarrhoea non blood	260
4	R.I Pneumonia	226.6	R.I Pncumonia	232.9	R.I Pneumonia	250.5
5	Eye Infections	175.2	Eye Infections	206.3	Eye Infections	232
6	Skin Infections	157.2	Skin Infections	130	Skin Infections	105.4
7	P.E.M	72.3	Trauma	67.3	Trauma	73.2
8	Trauma/Accidents	71.8	PEM	61.9	PEM	65.8
9	Anaemia	66.7	ENT Infectious	52	Anaemia	61.4
10	E.N.T	55.2	Intestinal Worms	50.1	ENT Infectious	46.6

**Source: Mansa District Action Plan 2006**

The table above shows that, eye infections are the 5<sup>th</sup> out of 10 cause of morbidity in the under five children between 2003 and 2005 in Mansa District.

**Table 3:       Prevalence of Eye Infections in the Under Five Children by Year**

YEAR	DISEASE	INCIDENCE
2003	Eye infections	232/1000
2004	Eye infections	206/1000
2005	Eye infections	175.2/1000

The table above shows that, the prevalence of eye infections is decreasing from 232/1000 in 2003 to 175.2/1000 in 2005. However, despite the decrease, prevalence rate is still high and



unacceptable. Most of these eye conditions cause blindness. Eye infections have continued to be a source of concern to the Mansa DHMT because sight is very important to an individual.

In Zambia, with proper health education, accident prevention, messages on care to antenatal mothers and adequate immunization of the under 5 children, childhood blindness should be very minimal. But in reality, the reverse obtains as tables 1 2 and 3 show.

Sight is very important to an individual. Most of the things people do, sight is the prerequisite e.g. being a doctor, nurse or an engineer. The importance of sight was emphasised by Christ himself in his sermon on the mount. Jesus Christ said ***“If therefore the light that is in thee be darkness, how great is that darkness”*** (King James Version bible).

Blindness affects 5% of the children in Luapula Province. The effect of childhood blindness is that, blind children spend their entire lives in total darkness. Further more a blind child suffers marginalization by the community. He is disadvantaged in terms of education and at the same time he is a candidate of abject poverty. A blind child is deprived of the joys of being a child as he lives in darkness where he does not see any thing. Childhood blindness has also an effect on parents. Some parents are ashamed of their children which lead to child neglect. Child neglect leads to poverty, illnesses and eventually death. Parents have also difficulties in raising their children into productive human beings. This drives a blind child into abject poverty. Childhood blindness has also an impact on the nation. The nation depends on children for its future economic growth. If the country is going to have many blind children who are the adults of tomorrow then the nation is bound for economic crisis.

The above highlighted consequences of childhood blindness are the reasons why the control of childhood blindness is a priority of the WHO/IAPB VISION 2020 (The Right to Sight programme).

For many years, eye care services in Zambia were being provided by the Zambia Flying Doctor Services. The Ministry of Health has now taken the challenge of providing eye care services to all Zambians.

In response to childhood blindness, the Ministry of Health is working in conjunction with WHO/IAPB VISION 2020 on developing a project on the prevention of childhood blindness. The mission of the project is to *“To Eliminate Unnecessary Childhood Blindness in Zambia by the Year 2020”*. The global goal is to reduce the global prevalence of childhood blindness from 0.75/1,000 children to 0.4/1,000 children by the year 2020 (Gilbert, 1999). To achieve the above goals the Ministry of Health has outlined long and short term objectives which includes;

1. Creating a network to fight trachoma in conjoint with the ophthalmic personnel (Nurses, Clinical Officers, EHTs and Doctors) in Zambia at all levels.
2. Establishing a program for eye screening in schools through out the country.
3. Strengthening Primary Health Care Workers knowledge in ophthalmology.
4. Conducting a program for preventing peri-natal eye conditions and
5. Support a centre for Paediatric Ophthalmology in Zambia.

To accomplish the above objectives, dedicated, knowledgeable, skilful and adequate human resources are required. However, the current shortage of qualified eye health workers in Zambia makes it impossible to achieve these goals by the year 2020; hence the need for integrated approach to eye cares' services. The Ministry of Health has embarked on the integrated approach to eye care services which aim at empowering those professionals who are in contact with a child at all levels with necessary knowledge, skills and correct attitudes to enable them attend to children with confidence. Integrated eye care workers include Nurses, Clinical Officers, EHTs and Doctors who are attending to children. Table 3 shows the decreasing incidence in eye infections in children due to the MoH efforts. These efforts need to be continued as they are very cost effective. This training will cost the Ministry of Health a lot of money which will be well spent as Nurses form a large sector of health workers. They are found at all levels of health care systems and country wide. Nurses are in most cases the only health workers who can be accessed in rural areas.

In view of this, the researcher seeks to find out the level of knowledge, attitudes and practices of nurses towards prevention of childhood blindness. It is hoped that the findings will help to identify the gaps in the eye care services especially in the prevention of childhood blindness on which relevant authorities can base their planning and formulation of policies concerning childhood blindness prevention.

### **1.3. FACTORS CONTRIBUTING/ INFLUENCING THE PROBLEM**

There are several factors that may affect the knowledge, attitudes and practices of nurses towards prevention of childhood blindness. These may be service, disease burden, and social economic and cultural related factors. The following are the major factors that may influence the problem.

#### **1.3.1. Service Related Factors**

##### **i. Institutional Policy**

A policy is a line of argument rationalizing the course of action of an institution (Oxford English Dictionary, 2005). An institutional policy in the prevention of childhood blindness will guide the practices of nurses in the prevention of childhood blindness. Without a policy, practices will be haphazard and there will be no commitment to the program as none will be accountable for the act.

##### **ii. Level of Knowledge**

Some nurses may lack the knowledge on how best they can provide care in line with the prevention of childhood blindness. It may be this lack of knowledge among nurses that may affect the practice of prevention of childhood blindness. Lack of knowledge may be due lack of in – service training and inadequate preparation of graduate nurses.

Level of knowledge may also be influenced by the level of profession. It is common sense that Registered Nurses (RNs) spend more time in basic training than Enrolled Nurses (ENs) and so they are expected to cover topics more comprehensively. For this reason, though both learn about prevention of childhood blindness, it is expected that RNs are more knowledgeable and receptive to the strategies.

##### **iii. Work - Over Load**

The number of staff attending to clients may have affected the practice of nurses towards childhood blindness in that the normal patient ratio of 1 nurse to 6 clients has been overcome by the increase in the number of patients one has to take of due to HIV/ AIDs and inadequate staff due to the movement of nurses to other countries and to NGOs locally in search of greener pasture.

**iv. Resources**

Any health provider can only provide quality care when all the needed requirements are made available. Nurses operate in an environment where most of the crucial requirements are either in short supply or are all together not available, for example, eye drops for the prevention of Ophthalmia Neonotorum. Performance of procedures becomes difficult in the absence of required resources. This may have affected the nurses negatively in that their morale may have been reduced and all their efforts to implement measures aiming at prevention of childhood blindness may have been offset.

**1.3.2. Socio-Economic Factors**

**i. Attitudes**

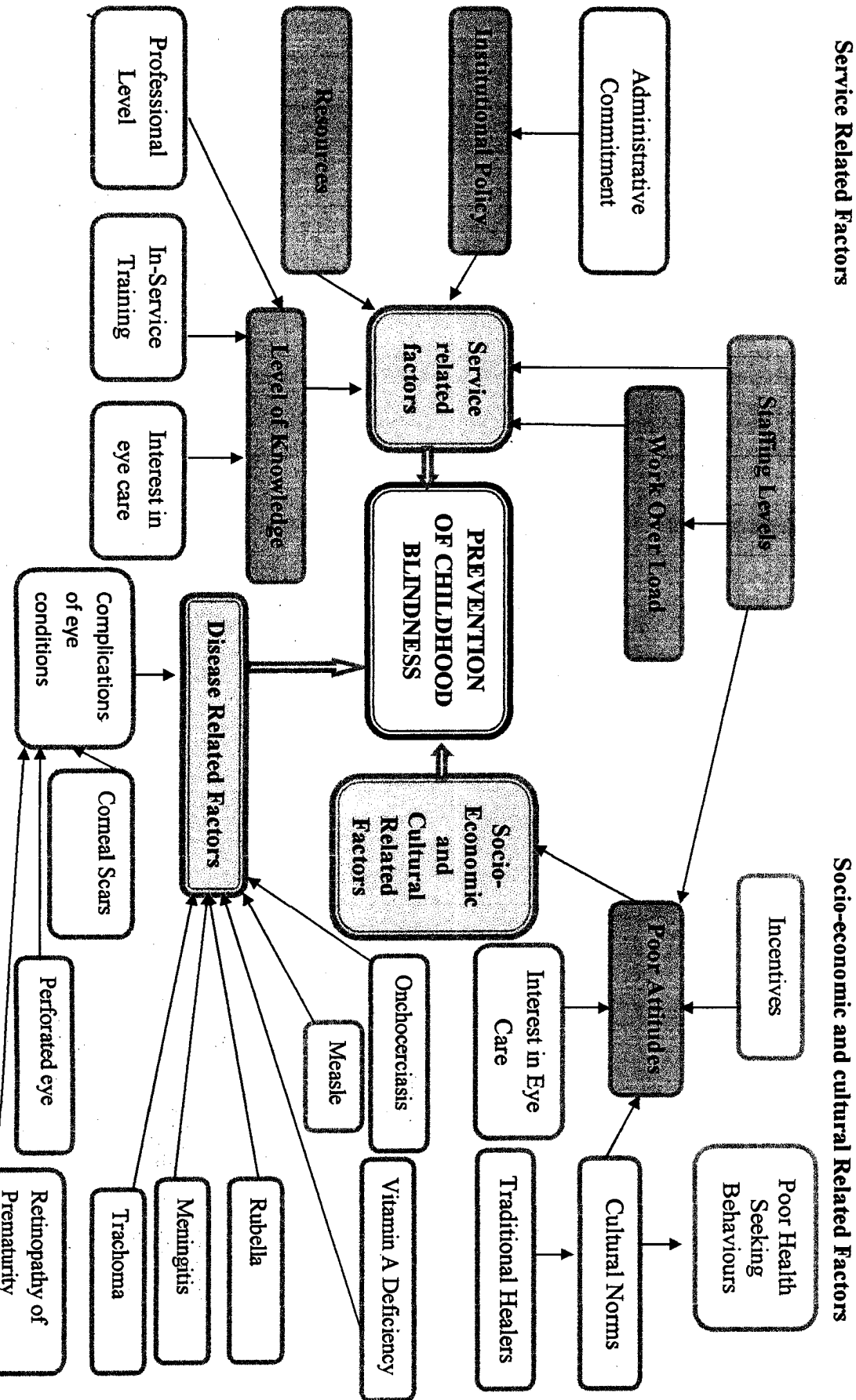
Attitude is the way one think and feels about some thing. Nurses may have either negative or positive attitudes towards the prevention of childhood blindness. Positive attitude may influence nurses to implement measures aiming at preventing childhood blindness while a negative attitude may influence nurses not to implement the necessary measures aiming at prevention of childhood blindness. Attitude may be influenced by a personal interest in eye care, incentives given to nurses and misconceptions about the eye such as *“eyes are delicate and should only be left to eye specialities”* while there are other practices which can be done safely and prevent the occurrence of blindness.

**1.3.3. Disease Related Factors**

The complications of some childhood illnesses like measles, meningitis, rubella, vitamin A deficiency, juvenile diabetes and corneal ulceration and Ophthalmia Neonotorum may lead to childhood blindness. Some of these diseases can also be treated with traditional eye medication which may lead to corneal ulceration and eventually blindness. Therefore, a nurse, nursing children should be aware of traditional eye medication and cultural norms relating to the handling of most childhood blindness.

The nurse can use this information in health educating mothers against the prevention of childhood blindness. Conditions such as trachoma, onchocerciasis and Ophthalmia Neonotorum can effectively be prevented if nurses had knowledge about them.

14. PROBLEM ANALYSIS DIAGRAM OF FACTORS INFLUENCING KNOWLEDGE, ATTITUDES AND PRACTICES OF NURSES TOWARDS PREVENTION OF CHILDHOOD BLINDNESS



## **1.5. JUSTIFICATION**

Global, regional and national reviews of literature have all pointed to the high prevalence of childhood blindness. Studies have shown that 5% of the total blindness in Zambia is due to childhood blindness and that 60.2% of children are blind from conditions which can be prevented (Mutati, 2007). This creates a gap which needs to be filled by the study. Also the researcher's own experience and interest in eye care has stimulated the author to conduct this study knowing that childhood blindness can be prevented.

Information from this study will be used to identify the gaps in the knowledge, attitudes and practices of nurses towards prevention of childhood blindness.

The Researcher hopes that, the new body of knowledge will be injected into updating the already existing programs in eye care. It is also hoped that it will be helpful to those who health educate clients at all levels of health care delivery.

The researcher will send the study recommendations to Mansa General Hospital for implementation into policy guide lines for practice at Mansa General Hospital.

## **1.6. RESEARCH OBJECTIVES**

An Objective is intent or a state of mind accompanying the performance of an act, consisting of the aim that the act produces certain results (Wartson, 2005). There are two types of objectives. These are general and specific objectives.

### **1.6.1. General Objective**

This is also called ultimate objective, aim or purpose. It expresses what is expected to be accomplished by the study in general term.

The general objective of this study is "to determine knowledge, attitudes and practices of nurses towards prevention of childhood blindness".

### **1.6.2. Specific Objectives**

These are break downs of general objective into smaller logically connected parts. They give more detail on what a researcher is going to investigate or research on.

The specific objectives of this study are;

- 1. To determine the knowledge of nurses towards the prevention of childhood blindness.
- 2. To establish the attitudes of nurses towards prevention of childhood blindness.
- 3. To determine the practices of nurses towards prevention of childhood blindness.
- 4. To identify areas for further research.
- 5. To make recommendations to the Ministry of Health who are the policy makers.

1.7. HYPOTHESES

Hypothesis is the statement that predicts the relationship between two or more variables. The following is the hypothesis of this study:

- 1. The specialized training of nurses in eye care the more successful the prevention of childhood blindness.

1.8. OPERATIONAL DEFINITION OF TERMS

In this study the following terms have been defined as follows:

Table 3: Operational Definitions of Terms

TERM	MEANING
Childhood blindness	Blindness occurring in an individual aged less than 15 years, who has a visual acuity in the better eye of equal or less than 3/60.
Attitude	The feelings nurses have towards prevention of childhood blindness.
Knowledge	The facts, information, skills and understanding that nurses have gained through learning or experience in the prevention of childhood blindness.
Practice	Is the exercise carried out by nurses regularly in order to prevent childhood blindness e.g. wiping of the baby's eye and instilling of eye drops immediately after being born.
Prevention	These are measures put in place in order to prevent the childhood blindness.
Institutional policy	Written guide lines which guide the practices of nurses in preventing childhood blindness.
Nurse	Person trained to care for the sick

## 1.9. VARIABLES AND CUT – OFF POINTS

**Table 4: Variables and Cut - Off Points**

<b>VARIABLES</b>	<b>CUT OFF POINTS</b>	<b>INDICATORS</b>	<b>Question Number</b>
<b>Knowledge</b>	<b>High level</b>	When the respondent is able to define childhood blindness and state the preventive strategies of childhood blindness and state how to treat common childhood blinding eye conditions and scores of 25 – 30 out of 30, on knowledge questions in the questionnaire.	8 - 27
	<b>Moderate</b>	When the respondent is able to score 20-24 out of 30, on knowledge questions in the questionnaire.	
	<b>Low level</b>	When the respondent is able to score 0-19 out of 30, on knowledge questions in the questionnaire.	
<b>Attitude</b>	<b>Positive</b>	If the nurse feels childhood blindness is a major health concern and childhood blindness prevention is beneficial to the child, family, community and the nation and score 6 -10 out of 10 on attitude questions in the questionnaire.	28 - 42
	<b>Negative</b>	If the nurse does not feel childhood blindness is not a major health concern and or does not feel childhood blindness prevention is beneficial to the child, family, community and the nation and score 0 – 5 on attitude questions in the questionnaire.	



<b>Practice</b>	<b>Good</b>	If a nurse is able to perform efficiently interventions aiming at preventing childhood blindness e.g. cleaning of the neonate's eyes immediately after birth, instilling of correct eye drops in the neonate's eyes after cleaning, administering vitamin A at correct times and correct duration, providing IEC, and promoting nutrition in children and conducting immunizations. And the respondent scores 9-11 out of 11 on questions concerning practices of nurses in the questionnaire.	43 – 53
	<b>Average</b>	If the nurse scores 6-8 out of 11 on questions concerning practices of nurses in the questionnaire.	
	<b>Poor</b>	If the nurse scores 6 out of 11 on questions concerning practices of nurses in the questionnaire.	
<b>Resources</b>	<b>Adequate</b>	If the all required resources needed in the prevention of childhood blindness are available at the hospital e.g. eye drops/ointment, vitamin A capsules, measles vaccines, swabs and IEC materials.	
	<b>Inadequate</b>	If the required resources needed in the prevention of childhood blindness are few or in most cases out of stock at the hospital.	

## **CHAPTER 2**

### **2.0. LITERATURE REVIEW**

#### **2.1. Introduction**

Literature review is the process that involves finding, reading, understanding and forming conclusions about published information on a particular topic under study (Treece and Treece, 2001: 91). It is important because it gives the researcher a clear picture about a topic under study, it also gives directions on which methodology and instruments can be effectively used. It also forms a basis for comparison when it comes to drawing up of conclusions. This chapter will review literature related to knowledge, attitudes and practices of health personnel towards prevention of blindness under Global, Regional and National perspective.

#### **2.2. Global Perspective**

Childhood blindness is of Global Public Health concern. WHO Fact Sheet No 214, estimates that, there are 1.4 million blind children world wide, 1 million of whom live in Asia, 300 000 in Africa and 100,000 in developed countries. The prevalence ranges from 0.3/1000 children aged 0–15 years in affluent countries to 1.5/1000 children in very poor communities mostly in the Sub-Saharan countries. The number of blind children may seem to be relatively low, but the consequences of childhood blindness are devastating. Children have a lifetime of blindness ahead, with an estimated 75 million blind-years (number of blind people × length of life).

Knowledge, attitudes and practices are identified as key issues in the prevention of not only blindness but eye diseases as well, globally.

A study conducted on the “value” of preventing blindness; the possibility of preventing cataract, glaucoma, and macular degeneration; the possibility of treating these conditions; and their knowledge of risk factors in Canada by Noertjojo et.al, (2005) in patients seen by family practitioners, showed that loss of vision was reported as a major medical concern by patients. However, there was little understanding of the risk factors for different eye diseases. The authors suggested that innovative education programmes were needed to improve knowledge, attitudes, and practices in the prevention of blindness.

The study highlighted the gaps between the value of preserving sight and understanding of the conditions causing blindness. The inadequate understanding of the causes of blindness is likely to influence the practices of patients towards prevention of blindness. The gap can only be bridged by health workers who are knowledgeable with good attitudes and skills in the prevention of blindness.

Praveen, et.al (2004) conducted a study as part of population-based survey of ocular morbidity to determine awareness and perceptions of eye diseases in children among parents and guardians of children in a rural south Indian population. Focus group discussions were conducted separately for mothers, fathers and grandparents. Content analysis of the focus group discussions was done and identified that, there was a predominant belief that children below 4 years should not wear spectacles. Strabismus was considered as untreatable and was seen as a sign of good luck. The study also reviewed that there were different advices which were being provided by Community Health Practitioners regarding strabismus. The discussions also brought out that eye doctors were approached last for eye care, after traditional healers and general physicians.

The study raised serious concerns with regard to childhood eye diseases. The most important is about different types of advice being provided by Community Health Practitioners. For the fact that they gave different advice on strabismus, it calls for evaluation of the knowledge of health workers towards eye care.

A survey conducted by Saikumar, (2002) in diabetic patients who attended out-patient department in India to determine awareness about the eye complications of diabetes revealed that 84% of patients were aware that DM could affect the eye. Among those who were aware that DM could affect the eye, 36 per cent learnt this through the media, 32 per cent from eye specialists and 30 per cent from their general practitioners or physicians. Among those who were aware that DM could affect the eye, 51% did not know exactly which part of the eye could be affected, 28.3 per cent thought that cataract was the main eye complication, and 19 per cent thought that DM mainly affected the 'nerves in the eye' (presumably retinopathy). Around 50 per cent of the patients knew that routine eye checks were necessary even if DM was well controlled, while the remainder thought that routine eye examinations were not necessary in that case.

Awareness is not the same as knowledge. Hearing about a problem is awareness, but understanding the causes or treatment of a disease, for example, is knowledge. In the study 84% of the patients were aware that DM could affect the eye, so awareness is quite high. But knowledge levels were lower: only 19 per cent of those interviewed knew that retinopathy was related to the control of DM. Among those who were aware that DM could affect the eye, 51 per cent did not know what eye complications could be. In this study, there is a relationship between lack of knowledge and practices aiming at preventing blindness in diabetic patients. As this study was done in an eye hospital, knowledge levels amongst diabetic patients in the general population are likely to be lower. Another issue this study brought out was that, among those who were aware that DM could affect the eye, only 30% learnt from general practitioners. This percentage is quite worrying knowing that nearly all patients pass through a general practitioner before being referred to specialists. This calls for evaluation of knowledge, attitudes and practices towards prevention of blindness in general practitioners.

Cano, (2007) conducted a study to estimate the prevalence of diabetic retinopathy (DR) among patients at the endocrinology department of the Social Security Institute Central Hospital, Paraguay, and to explore the health-seeking behaviour of diabetic patients. In this study, two focus groups, one comprised of patients with visual impairment due to DR and another comprised of diabetic patients with normal vision, were identified through purposive sampling. Patient behaviour with regards to seeking health care was explored in both groups. The most important issues raised by this study included a general lack of awareness about diabetes and its possible complications, denial of the disease, and fear of going blind once DR had become established. These results call for an improvement of health education and promotion, as well as the provision of social services to patients. These tasks can not be done by specialists alone but in collaboration with other health workers from different disciplines. If this has to be so then their knowledge, attitudes and practices towards prevention of DR should be evaluated.

Rawoof (2007) conducted a study in Sri Lanka which is a lower-middle-income country with very good health indicators and services for premature babies. The aim of the study was to collect information on policies regarding neonatal care, service provision and facilities for premature babies and to assess programmes for retinopathy of prematurity (ROP). Data were collected on infrastructure, personnel, policies regarding ventilation and oxygen administration,

and survival of premature babies (from hospitals and the Ministry of Health). Most of the data on ROP screening policies and the number of babies examined and treated were collected from ophthalmic units where possible. The results revealed that continuous monitoring of oxygen was not possible in all units and alarms were often not adequately set up.

The study indicated that there was a discrepancy between hospital policies and practices of personnel in the prevention of blindness from ROP. As most of these data was collected from eye units, the situation may be worse in general hospitals. The study of attitudes of health personnel was an issue which was supposed to be considered as knowledge alone is not enough to promote good practice of health personnel towards prevention of blindness.

In 2007, a study was conducted by Khairol, Bin and Sabtu to obtain an overview of human resource needs in eye care for the prevention of blindness in the member countries of the Association of Southeast Asian Nations (ASEAN). These are Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. The study identified different levels of eye care personnel, their numbers and distribution, and the training capacity for them in the region. The study showed that there was, to varying degrees, a shortage and maldistribution of ophthalmologists in some ASEAN member countries, particularly in Indonesia, Cambodia, Myanmar, Lao People's Democratic Republic, and Viet Nam, where the burden of blindness is significantly higher. Furthermore, the integration of primary eye care into the mainstream of primary health care is incomplete. At secondary and tertiary level, the shortage of ophthalmologists has been supplemented by the use of mid-level eye personnel.

The situation above is similar to Zambia. Eye specialists are inadequate and the integration of primary eye care into primary health care is still in its infancy. The study targeted eye specialists and not other health workers who are involved in the prevention of blindness. There is also a need to determine human resource needs of other health workers such as general practitioners and general nurses who are manly carrying out primary health care activities.

In rural Nepal, Curtale (2000) conducted a study to analyze the effects of a Nutrition Education Intervention (NEI), specifically designed to reduce vitamin A deficiency, on skills and utilization

of Community Health Volunteers (CHV). The intervention, which included preventive and curative activities, was carried out through the existing Primary Health Care (PHC) structure, utilizing CHVs trained by the Ministry of Health and already working in the villages. At the end of two years implementation, the CHVs associated with the NEI program showed an improved ability to detect and treat a range of common diseases such as diarrhoea, night blindness, malnutrition and acute respiratory infections as compared with the CHVs not associated with the intervention program. Community utilization of CHVs increased significantly while the use of traditional healers and consultations at private pharmacies decreased.

The study reviewed that, involving CHVs into programs and empowering them with curative activities can increase their motivation and their acceptance within the community with a positive return for all PHC activities. In the same way, if nurses were empowered and involved in the prevention of childhood blindness their knowledge practice and motivation may be increased.

### **2.3. Regional Perspective**

Childhood blindness has also been recognized as one of the major health problems in Africa. Africa especially Sub-Saharan countries are the home of about 300,000 blind children. Most governments in Africa have embarked on programs aiming at preventing childhood blindness.

Balo (2007) a Togolese, noticed that, the main constraint in the prevention of blindness is the lack of awareness of people regarding eye diseases. He, then, conducted a study to determine the level of knowledge, the attitudes and practices regarding glaucoma in the population of Lomé. The results indicated that, most of the people were knowledgeable about eye diseases and this accounted for 84%. The most well-known conditions were myopia, cataract, presbyopia, and glaucoma in a decreasing order of magnitude. Glaucoma was known by 29.7% of the population, among whom 25% were aware of glaucoma blindness cases. 56% of the population did not believe that modern Doctors can effectively control the disease and 4.4% of the population confessed of using traditional medication.

The high percentage of those who do not believe in modern Doctors and the high percentage of the population who are not aware that glaucoma causes blindness are worrying. This situation

requires the set up of a national strategic action plan (e.g., health education) through primary health care approach aiming at reducing the burden of glaucoma blindness in the country. If available knowledge and skills were made accessible to those communities in greatest need through knowledgeable and skilled Primary Health Care Providers, much of this needless blindness could be alleviated.

A study conducted by Awolola et al, (2000) to determine the Knowledge and beliefs about causes, transmission, treatment and control of human onchocerciasis in rural communities in south western Nigeria demonstrated that people's knowledge of the cause of infection and transmission was very poor. Only 3% related the clinical manifestations of onchocerciasis to Simulium bites. 36% percent had no idea of the cause of infection while the rest attributed the clinical symptoms of the disease to many other causes. People's knowledge of the treatment and control measures of the disease was also poor. However an impressive knowledge of the daily and seasonal distribution of Simulium flies was observed.

The study identified the need for health education campaigns aimed at relating the clinical manifestations of onchocerciasis to Simulium bites. This could help people in taking personal protective measures and seeking appropriate treatment to prevent blindness. This can only be achieved through primary eye care.

Another study conducted by Nkumbe (2007) to provide comprehensive information on existing human resources for the provision of comprehensive eye care services in the North West Province of Cameroon indicated that the distribution of human resources in the province was grossly unequal. It also indicated that, the main barriers to the provision and uptake of eye care services were lack of human resources, poor collaboration among stakeholders and patient beliefs.

In this study, the human resource evaluated was eye care workers who are ophthalmologists, ophthalmic paramedicals and ophthalmic nurses. It would be worthwhile to research on the level of knowledge, attitudes and practices regarding eye care in non eye specialists as well since most of these cases are first seen by them.

## **2.4.   Zambian Perspective**

In Zambia, it is estimated that 1% of the population is blind of which 5% of the total blindness is due to childhood blindness. Zambia, just like any other country in the region has recognized that childhood blindness is major health concern.

In 2007, Mutati conducted a study to assess the causes and distribution of blindness in children in three schools for the blind in Zambia. The results indicated that out of 60.9% children who were blind, 30% were due to retinal causes. Oculocutaneous albinism accounted for 68.3% of all visual loss affecting the retina. Measles and vitamin A deficiency combined accounted for 65.2% of all causes due to childhood factors. A total of 60.2% of children were blind from conditions that could have been avoided.

The high percentage of blindness caused by measles and vitamin A is quite worrying considering that Zambia has a well established and effective immunization program. It is also sad to note that 60.2% of the total childhood blindness was caused by conditions which can be avoided.

## **2.4.   Conclusion**

Literature review has shown that blindness is a major health concern world wide and that researchers from all parts of the world are trying to find ways of reducing the prevalence of childhood blindness. Most of the studies which have been done have concentrated mainly on the consumers of eye care services while others on eye care workers. Knowledge, attitudes and practices are the key components in the prevention and treatment of many health problems including blindness and other eye diseases. However, little is known about the level of knowledge, attitudes and practices towards eye care in non eye specialist health workers world wide. Hence, this study intends to fill in this gap in this area.

The problem of childhood blindness is quite huge and it needs participation of all health workers in order to succeed in our goal "Elimination of unnecessary childhood blindness in Zambia by the year 2020". Hence, knowledge, attitudes and practices of none eye specialists should be evaluated.



The Information, Education and Communication (IEC) prevention messages of childhood blindness can be incorporated at primary health care services. This IEC should be given by specialist nurses who are conversant with the causes of childhood blindness, the health seeking behavior, cultural norms and traditional practices related to childhood blindness. The literature review also shows that, health institutions should have qualified eye specialists to implement eye care programs and should have also guidelines to guide the practices of Health Care Practitioner.

## **CHAPTER 3**

### **3.0. Research Methodology**

Research methodology refers to the steps, procedures and strategies for gathering and analyzing the data in a research investigation”, (Polit and Hungler, 2001:167). The methodology, therefore, refers to the development of a research investigation. The aim is to ensure reliability and validity in the data collection tool needed. The aim of the study was to determine knowledge, attitudes and practices of nurses at Mansa General Hospital towards Prevention of Childhood Blindness.

### **3.1. Research Design**

Polit and Hungler (2001: 139) define a research design as the overall plan for addressing a research question, including specifications for enhancing the integrity of the study. It spells out in advance the strategies the investigator will adopt to develop information that is accurate and interpretable.

A descriptive study design with both qualitative and quantitative dimensions was used in this study. A descriptive study is a broad class of non experimental studies. Its purpose is to observe, describe and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for the hypothesis generation or theory development. It is commonly used in the field of nursing research (Polit and Hungler 2001: 178) The study described the relationship between the various factors (independent variables) and the practice of nurses towards prevention of childhood blindness (dependent variables). The researcher used a non experimental study because no interventions or manipulations were carried out on both the environment and the respondents.

### **3.2. The Research Setting**

Research setting is the physical location and condition in which data collection takes place in a study (Polit and Hungler, 2001:470).

This study was conducted at Mansa General Hospital which is situated in Mansa District. Mansa District is one of the 73 districts of Zambia. Mansa District is situated in the Luapula Province of Zambia. It is the Provincial Headquarters and has a projected population of 221,758 at 3.3%

growth rate, and covers an area of 161,000 sq. kilometers. It is one of the seven districts in Luapula Province (Mansa district Annual Report, 2006).

The district shares its borders with Mwense District in the North; Samfya District in the East and Milenge District in the South. It shares boundaries with Luwingu District on the North-East (a district in Northern Province). The district also shares an international boundary with the Democratic Republic of Congo on the South-West and Western sides along the Luapula River (Mansa district Annual Report, 2006). This research setting was chosen because of the researcher's convenience.

### **3.3. Study Population**

A study population refers to the entire number of units under study (whole) Treece and Treece (2001: 96) define study population as the entire number of units under study. In this study, the researcher's study population was nurses at Mansa General Hospital.

### **3.4. Sampling Selection**

Sampling is a process of selecting a portion of the population to represent the entire population (Polit and Hungler, 2001:230). A probability sampling method called simple random sampling using the lottery technique was used to select the sample. This method gave each element in the population an equal independent chance of being selected and therefore, left no room for biases.

The researcher obtained the list of all nurses at Mansa General Hospital which was a sample frame. Using simple random sampling method, the respondents were picked one by one from the 86 listed nurses until the number of respondents (50) was attained which was my sample size.

### **3.5. Sample Size**

A sample is a subset of a population selected to participate in a research study (Dempsey and Dempsey, 2000). The sample size for this study comprised of 50 nurses. This was due to limited time and resources a researcher had for this study. It was also an academic requirement to select a sample of 50 respondents.

### **3.6. Data Collection Tool**

Data collection tool refers to an instrument or tool the Researcher uses to collect data which may take a form of a self administered questionnaire, interview or check list. In this study, a self administered questionnaire was used as a tool to collect data from the respondents.

A questionnaire is defined by Basavanthappa (2007) as a paper-and-pencil instrument that a research subject is asked to complete, designed to gather data from individuals about knowledge, attitudes, beliefs and feelings and comprises a series of questions prepared by the researcher.

#### **3.6.1. Advantages of Using a Self Administered Questionnaire**

The following are the advantages of the self administered questionnaire;

- Questionnaires are a relatively simple method of obtaining data. Items can be constructed rather easily by beginners in research.
- They are a rapid and efficient method of gathering information.
- The researcher is able to gather data from a widely scattered sample.
- They are inexpensive to distribute.
- Data from close-ended items are relatively easy to tabulate, especially if there are check-off responses.
- Respondents can remain anonymous.
- The questionnaire offers a simple procedure for exploring a new topic.
- Questionnaires can be flexible concerning the type of item, the order of items and the topics covered by the researcher.
- The questionnaire is one of the easiest tools to test for reliability and validity.
- The subject has time to contemplate his/ her response to the same questions.
- Measurement is enhanced because all subjects respond to the same questions.
- Analysis and interpretation of data can be easily accomplished.

#### **3.6.2. Disadvantages of Using a Self Administered Questionnaire**

The following are the disadvantages of a self administered questionnaire;

- The instrument is unable to probe a topic in depth without becoming lengthy.

- The respondent may omit or disregard any item he / she choose, without giving an explanation.
- Some items may force the subject to select responses that are not his / her actual choice (forced-choice items).
- The amount of information that can be gathered is limited by the subject's available time and interest span. Usually respondents do not like to take more than 25 minutes to answer a questionnaire.
- Printing may be costly if the questionnaire is lengthy and is printed on high-quality paper.
- Addressing outside and return envelopes and postage are time-consuming and expensive, respectively.
- Data are limited to the information voluntarily supplied by the respondents. Not all members of the anticipated sample may comply with the request to participate.
- Some items may be misunderstood.
- The sample is limited to those who are literate.
- Subjects who return their questionnaires may not be a representative sample of the total population.
- The researcher cannot observe the nonverbal cues of the study respondents.
- If the respondent is promised anonymity, it is impossible to know who returned the questionnaires in case follow-up is needed.
- A special effort must be made to test for reliability and validity.
- The researcher does not have the opportunity to interact with the subject.
- Subjects usually are able to express their opinions or their views more easily when speaking than when writing.

### **3.7. Data Collection Technique**

Data collection techniques are methods or ways used to collect data to answer a research question (Treece and Treece, 2001). This study used a questionnaire technique to collect detailed information related to the variables. No research assistant was used for data collection. For the purpose of learning, the researcher collected the whole data himself. Self-administered questionnaires were distributed to respondents who completed the instrument. The researcher

then collected the questionnaires from respondents. This approach had an advantage of maximizing the return and allowed the researcher to clarify any possible misunderstandings about the instrument. Data was collected over a period of 15 days.

### **3.8 Pilot Study**

A pilot study is a small-scale version or trial run of the actual study (Polit and Hungler, 2001:34). The purpose of the pilot study is to obtain information for improving the project or assessing its feasibility.

A pilot study was conducted at UTH, which had similar characteristics as the actual population in which the study was conducted. The pilot study sample constituted 10% of the actual study sample. A sample of 5 nurses was randomly selected for the pilot study. The main reasons for conducting a pilot study were:

- To detect any errors in the questionnaire for the main study
- To assess the appropriateness and clarity of the questions in the self administered questionnaire.
- To test the feasibility, validity and reliability of the questionnaire and
- To make any corrections identified.

### **3.9. Validity**

Validity is the degree to which an instrument measures what it is intended to measure (Polit and Hungler, 2001:656). There are two types of validity. These are internal validity and external validity. According to French (1998), internal validity is concerned with the extent to which conclusions can be drawn about the causal effects of one variable on another. In other words internal validity is high if we can be sure that our interventions rather than extraneous factors brought about the effects. External validity is concerned with the extent to which research findings can be generalised beyond the tested sample of the study population.

In this study, validity was maintained by ensuring that all variables under study are covered in the questionnaire. The questionnaire addressed each specific objective in the study. Questions were clearly constructed to avoid ambiguity and were pre-tested. The researcher constructed the questionnaire in English as he was dealing with a literate group. The self administered

questionnaire was tested at the University Teaching Hospital (UTH) because UTH has similar characteristics like Mansa General Hospital. This was done in order to ensure that the instrument measures what it is suppose to be measured.

### **3.10. Reliability**

Reliability is the degree of consistency or dependability with which an instrument measures the attributes it is designed to measure (Polit and Hungler, 2001:651). The instrument should be able to bring out the accurate information whereby if the same instrument has to be used after some time, it will produce the same responses. The same instrument was used to collect data from all the respondents and this helped to collect similar data.

### **3.11. Ethical and Cultural Considerations**

The researcher obtained a written permission to collect data for the pilot and actual study from the UTH Managing Director and Mansa General Hospital Executive Director respectively. Verbal permission was sought from each and every respondent. No respondents were forced to take part in the study. The nature and purpose of the study was thoroughly explained to the respondents so that they were able to make an informed decision. The respondents were assured of anonymity and confidentiality. No name was used on the questionnaire except numbers.

## **CHAPTER 4**

### **4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS**

#### **4.1 INTRODUCTION**

The aim of the study was to determine knowledge, attitudes and practices of nurses towards prevention of childhood blindness at MGH. Data was collected from 50 nurses who were working in different wards and departments. The data was collected by the use of a self administered questionnaire. This chapter looks at the presentation of the findings and data analysis of the study.

#### **4.2 DATA ANALYSIS**

Data analysis is the process of categorizing, scrutinizing and cross - checking the research data, (Treece and Treece, 2001). Data can only be useful when arranged in a meaningful manner, in order to be able to derive patterns of relationships (Polit and Hungler, 1995).

Data was collected using a self administered questionnaire. Then data was edited for completeness and recorded on the data master sheet. Responses to closed – ended questions were coded using numbers, and open – ended responses were categorized and coded. Data was processed manually and entered on a data master sheet. Frequency counts, percentages and comparison of variables and cross tabulations of variables were done to show relationships among variables in numerical terms.

#### **4.3 PRESENTATION OF FINDINGS**

The findings of the study have been presented in terms of tables, figures and cross tabulations. The tables and figures have been clearly numbered and carefully labeled with self – explanatory headings under sections A, B, C, D and E. section “A” presents findings on demography, section “B” under knowledge, section “C” under attitude, section “D” under practice and section “E” under cross tabulations.



SECTION A

4.4.1 DEMOGRAPHIC DATA

Table 4: Respondents According To Age (n = 50)

AGE	FREQUENCY	PERCENTAGE
21-25	4	8%
26-30	5	10%
31-35	6	12%
36-40	11	22%
41-45	13	26%
46-50	5	10%
51-55	5	10%
56-60	1	2%
TOTALS	50	100%

Table 4 shows that, the majority of the respondents 26% (13) were between the ages of 41- 45 years. They were followed by those 22% (11) between the ages of 36-40 years. The least group was ranging from 56-60 years representing 2% (1) of the total respondents.

Figure 3: Distribution of Respondents According To Sex (n = 50)

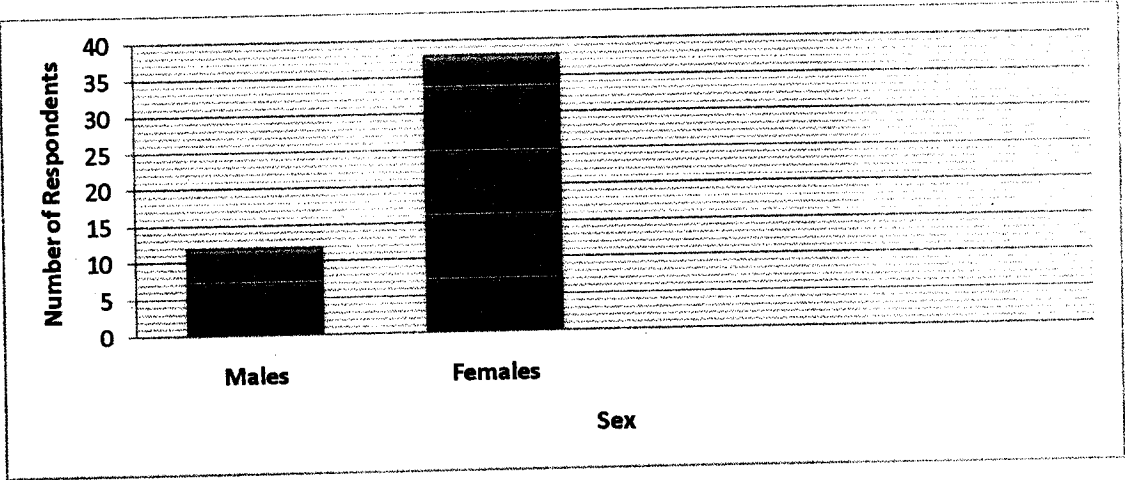


Figure 3 shows that, the majority of the respondents were females representing 76% (38) of the total respondents while males were 24% (12).

**Figure 4: Respondents according to Professional Qualifications (n = 50)**

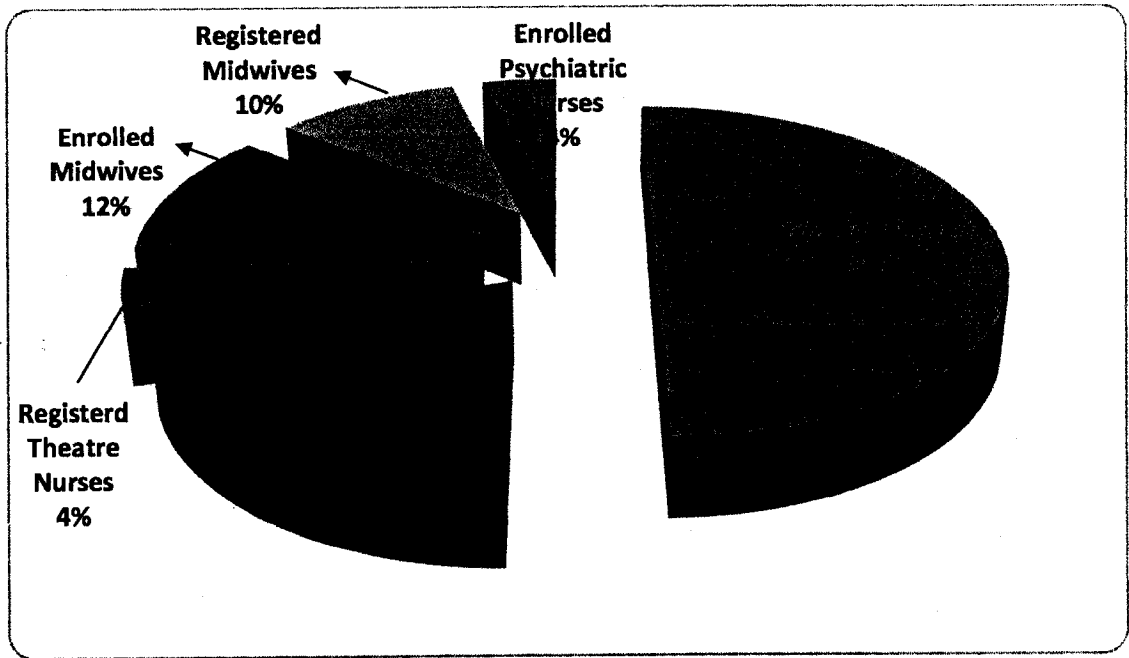


Figure 4 shows that, the majority of the respondents were Enrolled Nurses representing 50% (25) of the total respondents. The least were Registered Theatre Nurses and Enrolled Psychiatric Nurses representing 4% (4) each of the respondents.

**Table 5: Respondent’s Nursing Training School (n = 50)**

NURSE TRAINING SCHOOL	FREQUENCY	PERCENTAGE
Mansa	18	36%
St Paul’s	10	20%
Kasama	4	8%
Kitwe	4	8%
Ndola	3	6%
Mukinge	3	6%
Chainama	2	4%
Chilonga	2	4%
Katete	1	2%
Mwami	1	2%

<b>Lusaka</b>	<b>1</b>	<b>2%</b>
<b>Nchanga</b>	<b>1</b>	<b>2%</b>
<b>TOTALS</b>	<b>50</b>	<b>100%</b>

Table 5 shows that, the majority of the respondents 36% (18) were trained at Mansa School of Nursing followed by those 20% (10) who were trained at St Paul's School of Nursing. The least were those trained at Mwami, Lusaka, Katete and Nchanga Schools of nursing representing 2% (1) each of the total respondents.

**Table 6: Respondents' Years in Service (n = 50)**

<b>EXPERIENCE IN YEARS</b>	<b>FREQUENCY</b>	<b>%</b>
<b>33-38</b>	<b>2</b>	<b>4%</b>
<b>28-32</b>	<b>5</b>	<b>10%</b>
<b>23-27</b>	<b>4</b>	<b>8%</b>
<b>18-22</b>	<b>10</b>	<b>20%</b>
<b>13-17</b>	<b>11</b>	<b>22%</b>
<b>6-12</b>	<b>7</b>	<b>14%</b>
<b>3-5</b>	<b>6</b>	<b>12%</b>
<b>Less than 2</b>	<b>4</b>	<b>8%</b>
<b>-</b>	<b>1</b>	<b>2%</b>
<b>TOTALS</b>	<b>50</b>	<b>100%</b>

Table 6 shows that, the majority of the respondents 22% (11) had worked for 13-17 followed by 20% (10) of those who had served for 18-22 years while the least 4% (2) had served for 33-38 years.

**Table 7: Distribution of Respondents According to Wards/ Departments (n = 50)**

<b>WARD/DEPARTMENT</b>	<b>FREQUENCY</b>	<b>%</b>
<b>Female Surgical Ward</b>	<b>6</b>	<b>12%</b>
<b>Male Medical Ward</b>	<b>6</b>	<b>12%</b>
<b>Maternity Ward</b>	<b>5</b>	<b>10%</b>
<b>Male Surgical Ward</b>	<b>5</b>	<b>10%</b>
<b>Female Medical Ward</b>	<b>4</b>	<b>8%</b>

<b>High Cost</b>	4	8%
<b>Childrens Medical Ward</b>	3	6%
<b>Psychiatry Department</b>	3	6%
<b>Chest (TB) Ward</b>	3	6%
<b>Theatre</b>	3	6%
<b>Out Patient Department</b>	2	4%
<b>School</b>	2	4%
<b>Administration</b>	1	2%
<b>Blood Bank</b>	1	2%
<b>Children's Clinic</b>	1	2%
<b>Eye Department</b>	1	2%
<b>TOTALS</b>	<b>50</b>	<b>100%</b>

Table 7 shows that, most of the respondents came from Female Surgical Ward and Male Medical Ward which were represented by 12% (6) each of the total respondents. The least was eye department, children's clinic, blood bank and administration which were represented by 2% (1) each of the total respondents.

**Table 8: Allocation of Nurses at Mansa General Hospital**

<b>WARD/DEPARTMENT</b>	<b>NUMBER OF STAFF</b>	<b>PERCENTAGE</b>
<b>Maternity Ward</b>	13	15.1%
<b>Female Surgical Ward</b>	8	9.3%
<b>Out Patient Department</b>	8	9.3%
<b>Female Medical Ward</b>	7	8.1%
<b>High Cost</b>	7	8.1%
<b>Children's Medical Ward</b>	6	7%
<b>Male Medical Ward</b>	6	7%
<b>Male Surgical Ward</b>	6	7%
<b>Theatre</b>	5	5.8%
<b>Administration</b>	4	4.7%
<b>Psychiatry Department</b>	4	4.7%
<b>Chest (TB) Ward</b>	4	4.7%
<b>Eye Department</b>	3	3.5%
<b>Blood Bank</b>	2	2.3%

School	2	2.3%
Children's Clinic	1	1.2%
TOTALS	86	100%

Table 8 shows that, 15% (13) of the total nursing staff were allocated to Maternity Ward (MAT) while 1% (1) were allocated to Children’s Clinic.

**Figure 5:      Respondents’ Responses on Training in eye care (n = 50)**

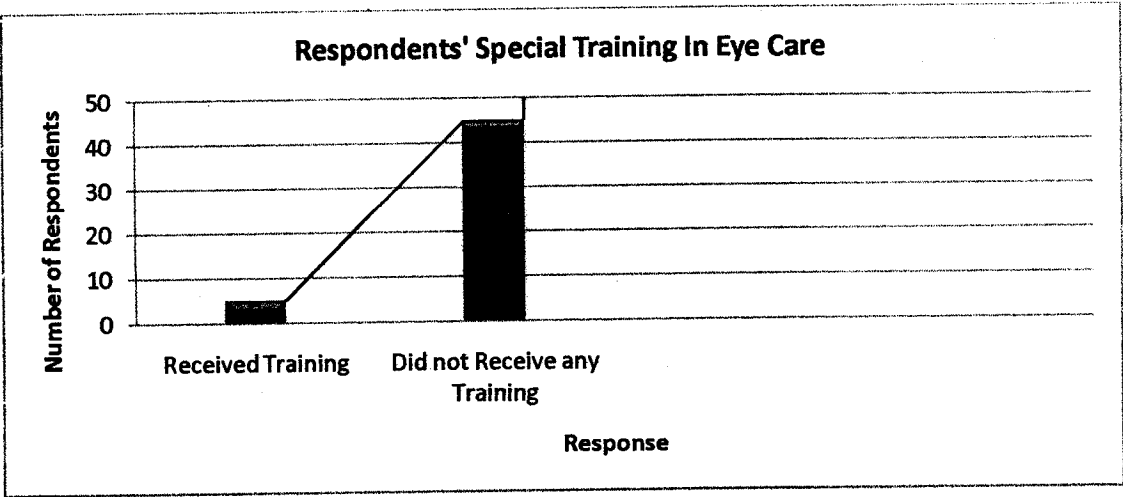


Figure 5 shows that, the majority of the respondents 90% (45) were not trained in eye care while 10% (5) were trained.

**SECTION B**

**4.4.2 KNOWLEDGE ON CHILDHOOD BLINDNESS**

**Figure 6: Respondent's Responses on Awareness on Prevention of Childhood Blindness (n = 50)**

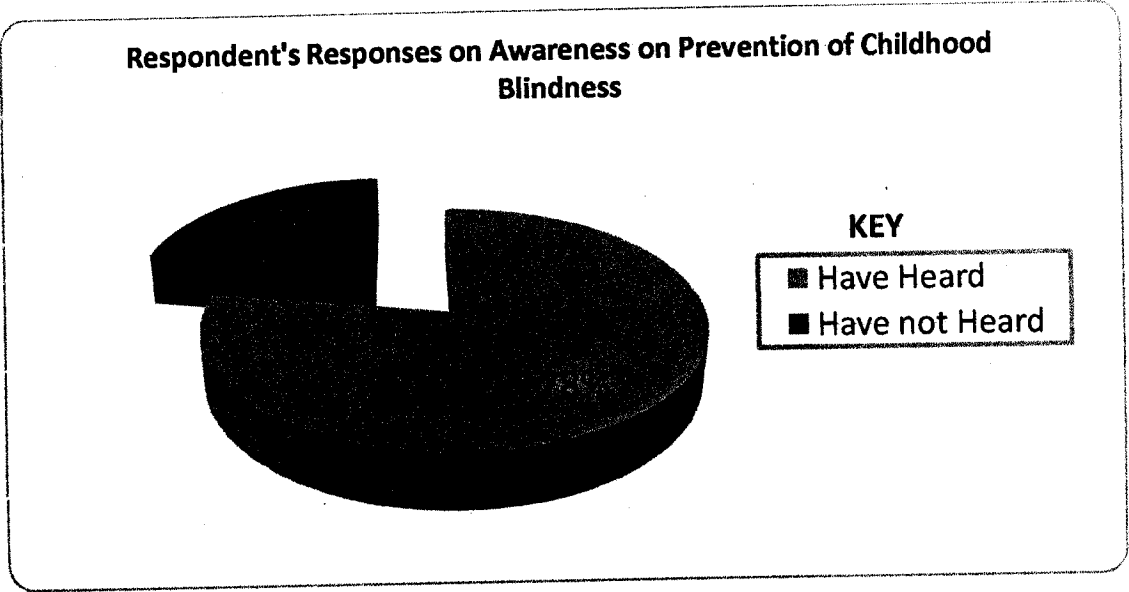


Figure 6 shows that, 78% (39) of the respondents had heard about prevention of Childhood Blindness (CHB) while 22% (11) had not heard about prevention of Childhood Blindness.

**Figure 7: Respondents' Responses to Sources of Awareness on Childhood Blindness (n = 50)**

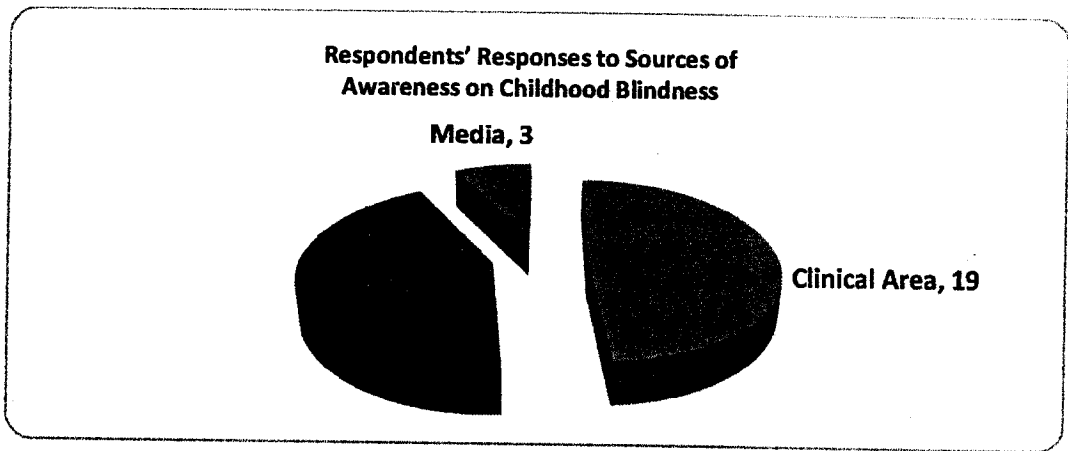


Figure 7 shows that, out of the 78% (39) respondents who had heard about prevention of childhood blindness, 38% (19) first heard from the clinical area, 34% (17) first head from their training schools and 6% (3) from the media.

**Figure 8: Respondents' Knowledge on Definition of Childhood Blindness (n = 50)**

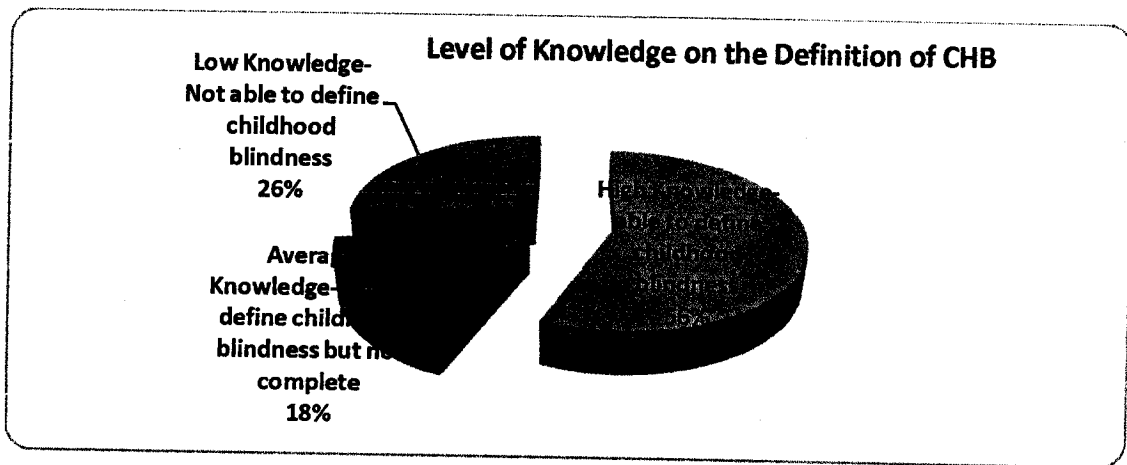


Figure 8 shows that, most of the respondents 56% (26) had high knowledge while 18% (9) had average knowledge on the definition of childhood blindness. 26% (13) of the respondents had low knowledge on the definition of childhood blindness.

**Table 9:        Respondents’ Responses on Causes of Childhood Blindness due to Rubella and Toxoplasmosis (n = 50)**

CAUSES OF BLINDNESS	FREQUENCY	PERCENTAGE
Rubella and Toxoplasmosis	20	40%
Rubella	13	26%
Toxoplasmosis	4	8%
Didn’t Know	13	26%
TOTALS	50	100%

Table 9 shows that, most of the respondents, 40% (20) identified Rubella and Toxoplasmosis as intrauterine causes of childhood blindness, 26% (13) identified only Rubella and 8% (4) identified only Toxoplasmosis. 26% (13) of the respondents did not know the intrauterine causes of childhood blindness.

**Table 10:        Respondent’s Responses on Causes of Childhood Blindness due to Retinopathy of Prematurity and Birth Hypoxia (n = 50)**

CAUSES OF BLINDNESS	FREQUENCY	PERCENTAGE
Retinopathy of Prematurity and Birth Hypoxia	8	16%
Retinopathy of Prematurity only	14	28%
Birth Hypoxia only	10	20%
Didn’t Know	23	46%
TOTALS	50	100%

Table 10 shows that, 16% (8) of the respondents identified retinopathy of prematurity and birth hypoxia as perinatal causes of childhood blindness. 28% (14) identified retinopathy of prematurity and 20% (10) of the respondents identified birth hypoxia as perinatal causes of childhood blindness. 46% (23) of the respondents did not know the perinatal causes of childhood blindness.



**Table 11: Respondent’s Responses on Causes of Childhood Blindness due to Vitamin A Deficiency, Measles Infection, Ophthalmia Neonotorum, Traditional Eye Medication and infective Corneal Ulcers (n = 50)**

RESPONSE	VARIABLE				
	Vitamin A Deficiency (n = 50)	Measles Infection (n = 50)	Ophthalmia Neonotorum (n = 50)	Traditional Eye Medication (n = 50)	Infective Corneal Ulcers (n = 50)
Correct	22 (44%)	36 (72%)	33 (66%)	38 (76%)	45 (90%)
Incorrect	28 (56%)	14 (28%)	17 (34%)	12 (24%)	5 (10%)
TOTALS	50 (100%)	50 (100%)	50 (100%)	50 (100%)	50 (100%)

Table 11 shows that, 44% (22) of the respondent’s ticked vitamin A deficiency as one of the cause of childhood blindness due to corneal ulceration while 56% (28%) did not. 72% (36) respondents ticked measles infection as one of the causes of childhood blindness while 28% (14) did not. 66% (33) ticked Ophthalmia Neonotorum as one of the cause of childhood blindness while 34% (17) did not. Harmful traditional eye medication was ticked by 76 % (38) of the respondents. The table also shows that, 90% (45) of the respondents ticked infective corneal ulcer as one of the causes of childhood blindness due to corneal ulceration while 10% (10) did not.

**Table 12: Respondent’s Responses on Causes of Childhood Blindness due to Cataract, Glaucoma, Refractive Errors and Uveitis (n = 50)**

CAUSES OF BLINDNESS	FREQUENCY	PERCENTAGE
Cataract, Glaucoma, Refractive Errors and Uveitis	13	26%
Cataract, Glaucoma and Uveitis	10	20%
Cataract, Glaucoma and Refractive Errors	5	10%
Glaucoma, Refractive Errors and Uveitis	1	2%
Cataract and Glaucoma	5	10%
Glaucoma and Uveitis	1	2%
Cataract	1	2%
Glaucoma	2	4%

<b>Uveitis</b>	<b>7</b>	<b>14%</b>
<b>Didn't Know</b>	<b>5</b>	<b>10%</b>
<b>TOTALS</b>	<b>50</b>	<b>100%</b>

Table 12 shows that, 26% (13) respondents where able to tick Cataract, Glaucoma, Refractive Errors and Uveitis as other causes of childhood blindness while 10% (5) of the respondents did not know any other causes of childhood blindness.

**Table 13: Respondent's Responses on Redness in both eyes, Pus Discharge and Swollen eye lids as Signs and Symptoms of Ophthalmia Neonotorum (n = 50)**

<b>SIGNS AND SYMPTOMS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>Redness in both eyes, Pus Eye Discharge and Swollen eye lids</b>	<b>29</b>	<b>58%</b>
<b>Pus Eye Discharge and Swollen Eye lids</b>	<b>11</b>	<b>22%</b>
<b>Redness in both eyes and Pus Discharge</b>	<b>3</b>	<b>6%</b>
<b>Redness in both eyes</b>	<b>1</b>	<b>2%</b>
<b>Pus Eye Discharge</b>	<b>5</b>	<b>10%</b>
<b>Didn't Know</b>	<b>1</b>	<b>2%</b>
<b>TOTALS</b>	<b>50</b>	<b>100%</b>

Table 13 shows that, 58% (29) of the respondents, were able to identify redness eyes, pus discharge and swollen eye lids as the signs and symptoms of Ophthalmia Neonotorum. Only 2% (1) did not tick on any signs and symptoms of Ophthalmia Neonotorum.

**Figure 9:      Respondent's Responses on when to clean the neonates' eye in prevention of Ophthalmia Neonotorum (n = 50)**

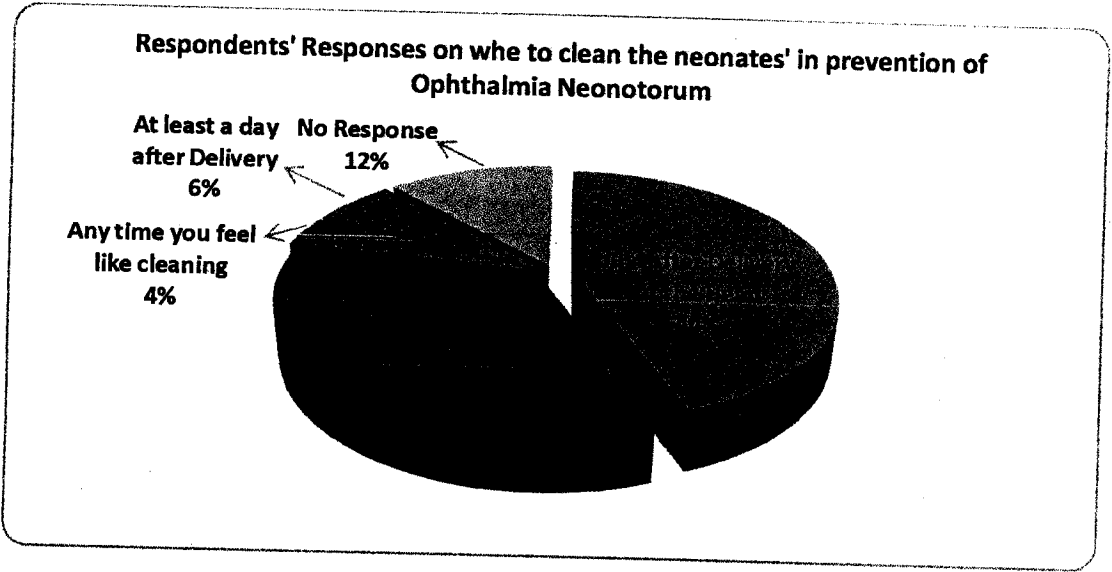


Figure 9 shows that, 44% (22) of the respondents responded that, neonates' eyes are cleaned just after delivery of the baby. 34% (17) responded that, eyes are cleaned just after the head has been delivered. 6% (3) responded that, neonates' eyes are cleaned at least a day after delivery and 4% (2) responded that, eyes can be cleaned at any time a nurse feels like cleaning. 12% (6) of the respondents did not give their responses.

**Table 14: Respondent's Responses on Povidone Eye Drops and Tetracycline Eye Ointment as Drugs which can be used in the Prevention of Ophthalmia Neonotorum (n = 50)**

DRUGS	FREQUENCY	PERCENTAGE
Povidone and Tetracycline Eye Drops	3	6%
Tetracycline Eye Ointment	25	50%
Povidone Eye Drops	2	4%
Didn't Know	20	40%
TOTALS	50	100

Table 14 shows that, only 6% (3) respondents ticked both Povidone eye drops and tetracycline eye ointment as drugs used in the prevention of Ophthalmia Neonotorum. 50% (25) ticked tetracycline eye ointment and 4% (2) ticked Povidone eye drops as drugs which can be used in the prevention of Ophthalmia Neonotorum. 40% (20) of the respondents did not tick on any drug which can be used in the prevention of Ophthalmia Neonotorum

**Table 15: Respondent's Responses on Measles Immunization, Vitamin A Supplementation, Nutritional Education, IEC, Cleaning Eyes of the New Born Children and Clean Water Supply as Strategies Used in the Prevention of CHB**

RESPONSE	Measles Immunization (n = 50)	Vitamin A Supplementation (n = 50)	Nutritional Education (n = 50)	Information, Education and Communication (IEC) (n = 50)	Cleaning Eyes of the New Born Children (n = 50)	Clean Water Supply (n = 50)
Correct Response	44 (88%)	50 (100%)	45 (90%)	43 (86%)	33 (66%)	14 (28%)
Incorrect Response	6 (12%)	0	5 (10%)	7 (14%)	17 (34%)	36 (72%)
TOTALS	50 (100%)	50 (100%)	50 (100%)	50 (100%)	50 (100%)	50 (100%)

Table 15 shows that, the majority of the respondents, 100% (50) indicated that vitamin A supplementation was one of the strategies used in the prevention of childhood blindness followed

by nutritional education indicated by 90% (45) of the respondents and measles immunization indicated was indicated by 88% (44) of the respondents. Only 28% (14) of the total respondents indicated clean water supply as one of the strategies used in the prevention of childhood blindness.

**Figure 10:     Respondent’s Knowledge on Treatment Protocol of Vitamin A Deficiency with Vitamin A (n = 50)**

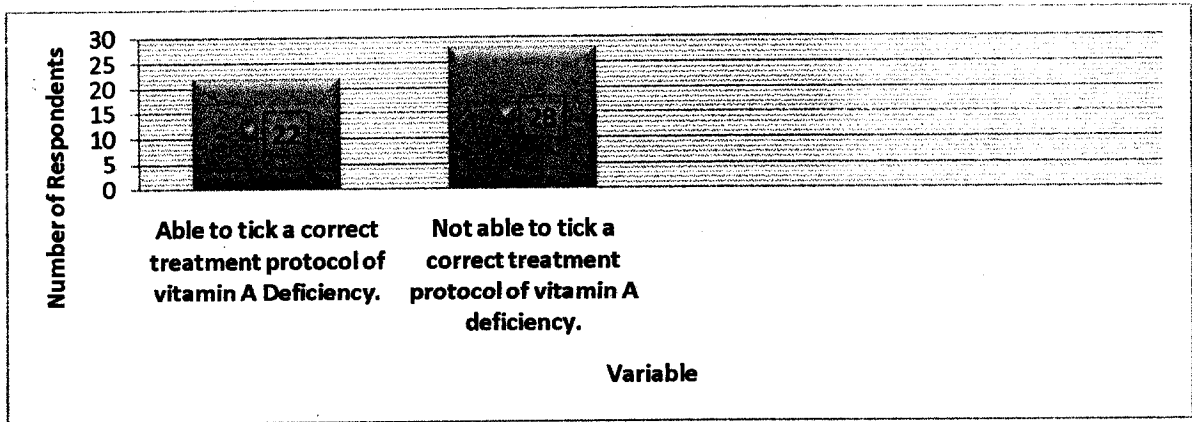


Figure 10 shows that, 44% (22) of the respondents ticked a correct treatment protocol of vitamin A deficiency while 56% (28) did not tick the correct treatment protocol.

**Table 16:     Respondents’ responses on the availability of the Prevention of CHB Policy at the institution (n = 50)**

AVERABILITY	FREQUENCY	PERCENTAGE
Yes	6	12%
No	14	28%
Don’t know	28	56%
No response	2	4%
TOTAL	50	100%

Table 16 shows that, the majority of the respondents, 56% (28) did not know weather a policy on prevention of childhood blindness was available at the institution or not. 28% (14) of the

respondents indicated that there was no policy while 12% (6) indicated that the policy was available. 4% (2) of the respondents gave no response.

**Figure 11: Respondents' over all Level of Knowledge on Prevention of Childhood Blindness (n = 50)**

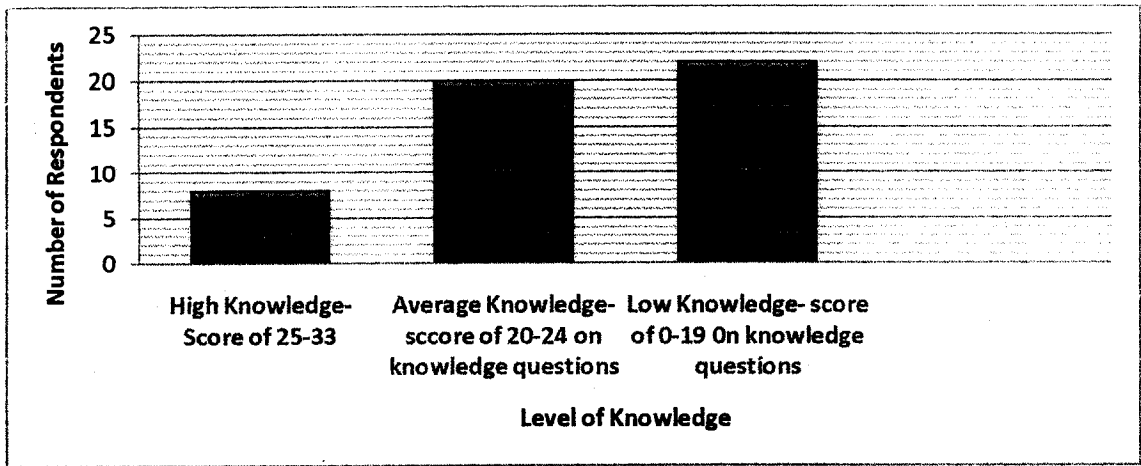


Figure 11 shows that, the majority of the respondents 44% (22) had low knowledge, 40% (20) had average knowledge while highest knowledge was recorded in 16% (8) of the respondents.

**SECTION C**

**4.4.3: NURSE’S ATTITUDES TOWARDS PREVENTION OF CHB**

**Figure 12: Respondents feelings towards Childhood Blindness (n = 50)**

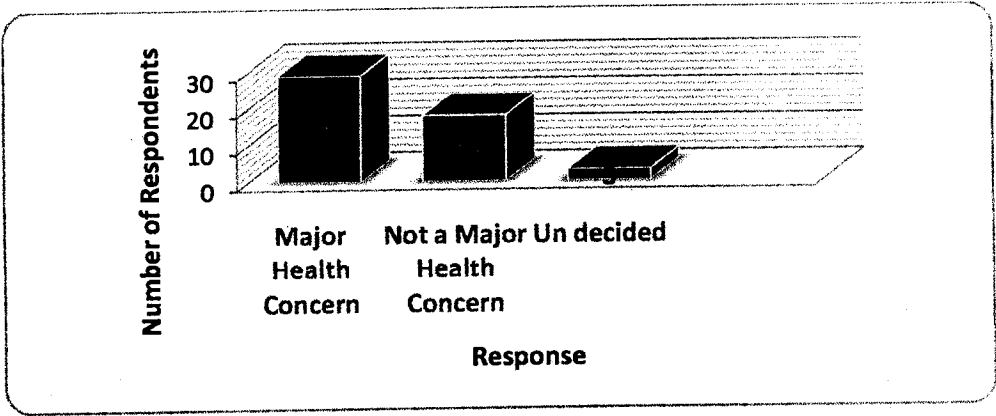


Figure 12 shows that, the majority of the respondents 58% (29) indicated that childhood blindness was a major health concern in Zambia while 36% (18) indicated that it wasn't.

**Figure 13: Respondents Interest in the Provision of Eye Care for the Prevention of Childhood Blindness (n = 50)**

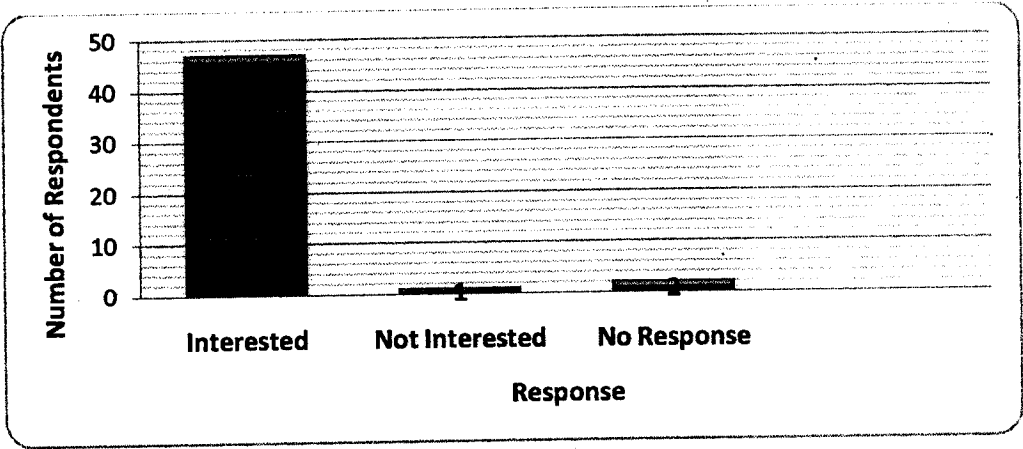


Figure 13 shows that, most of the respondents 94% (47) indicated that they were interested in providing eye care for the prevention of childhood blindness while 2% (1) indicated not to be interested.

**Figure 14: Respondents' Thoughts on whether Prevention of CHB Should Be for Eye Specialists Alone or Not (n = 50)**

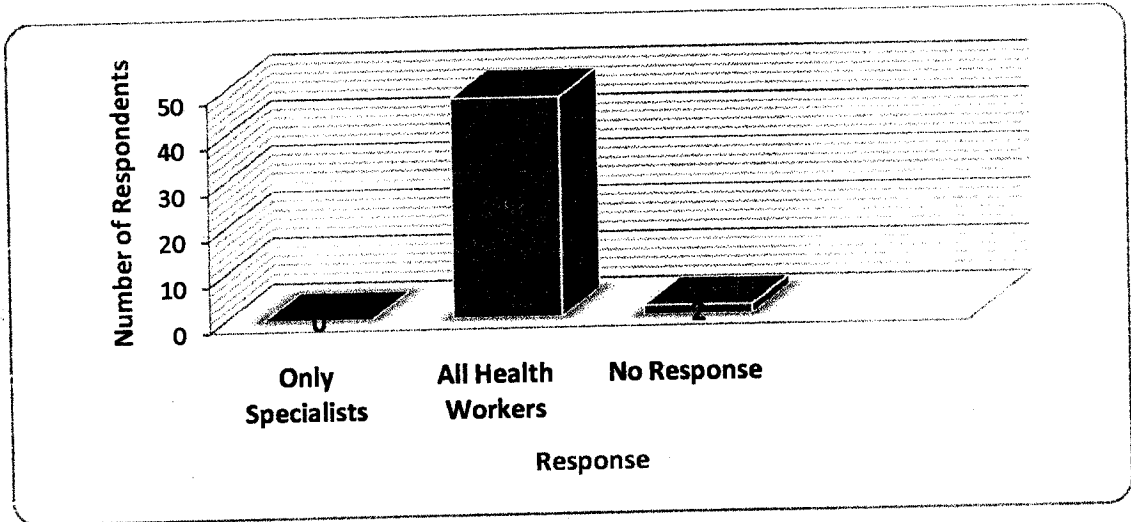


Figure 14 shows that, the majority 96% (48) of the respondents thought that prevention of CHB is a duty of all health workers. 4% (2) did not give their responses.

**Table 17: Respondents Who Thought Nurses can contribute to the Prevention of CHB (n = 50)**

RESPONSE	FREQUENCY	PERCENTAGE
Yes	47	94
No	0	0
No response	3	6
TOTAL	50	100

Table 17 shows that, most of the respondents 94% (47) thought nurses can contribute to the prevention of CHB. 6% (3) of the respondents did not give their responses.



**Table 18: Respondents' Feelings about Having a Policy on Prevention of CHB at the Hospital (n = 50)**

FEELINGS	FREQUENCY	PERCENTAGE
Necessary	46	92
Not necessary	0	0
No response	4	8
TOTAL	50	100

Table 18 shows that, the majority 92% (46) of the respondents felt that, a policy on the prevention of childhood blindness was necessary. 8% (4) of the respondents did not give their responses.

**Table 19: Respondents' Attitudes towards Prevention of Childhood Blindness (n = 50)**

ATTITUDES	FREQUENCY	PERCENTAGE
Positive	39	78%
Negative	11	22%
TOTAL	50	100%

Table 18 shows that, most of the respondents 78% (39) had a positive attitude towards prevention of childhood blindness while 22% (11) had a negative attitude.

**SECTION D**

**4.4.4: NURSES PRACTICE TOWARDS PREVENTION OF CHB**

**Figure 15: Respondents Who Participated in the Prevention of CHB in the Past 6 Months (n = 50)**

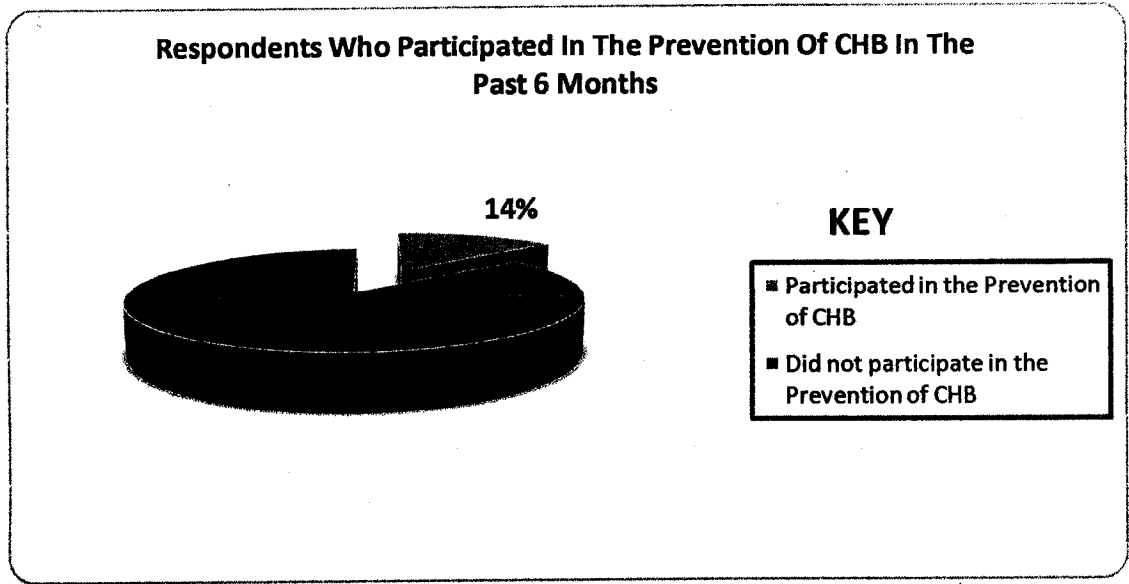


Figure 15 shows that, the majority of the respondents 86% (43) did not participate in the prevention of childhood blindness while 14% (7) of the respondents participated in the prevention of childhood blindness 6 months prior the to the study.

**Table 20: Respondent's Responses on which childhood blindness prevention Activities they participated in, in the last 6 months (n=7)**

BLINDNESS PREVENTION	FREQUENCY	PERCENTAGE
Treating common eye infections	1	14%
Participated in Child Health Week	5	72%
Giving information, education and communication	1	14%
TOTAL	7	100%

Table 20 shows that, out of the 14% (7) respondents who participated in the prevention of childhood blindness, 72% (5) participated in child health week activities while 14% (1) participated in the giving of information, education and communication (IEC) and the other 14% (1) participated in treating common eye infections.

**Table 21: Respondents Responses on the Reasons for not participating in the Prevention of CHB in the past 6 Months (n=43)**

REASONS	FREQUENCY	PERCENTAGE
Have no Exposure	39	91%
Not in contact with children	2	5%
No knowledge about childhood blindness	1	2%
Activities are restricted to eye Department	1	2%
TOTAL	43	100%

Table 21 shows that, out of the 86% (43) of respondents who did not participate in the prevention of childhood blindness, 91% (39) indicated that, they were not exposed to the prevention of childhood blindness activities. 5% (2) indicated that they were not in contact with children while 2% (1) indicated that they had no knowledge on the prevention of childhood blindness. The remaining 2% (1) indicated that the activities of eye care were restricted to the eye department.

**Figure 16: Respondents Who Conducted Deliveries in the Past 6 Months before the study (n = 50)**

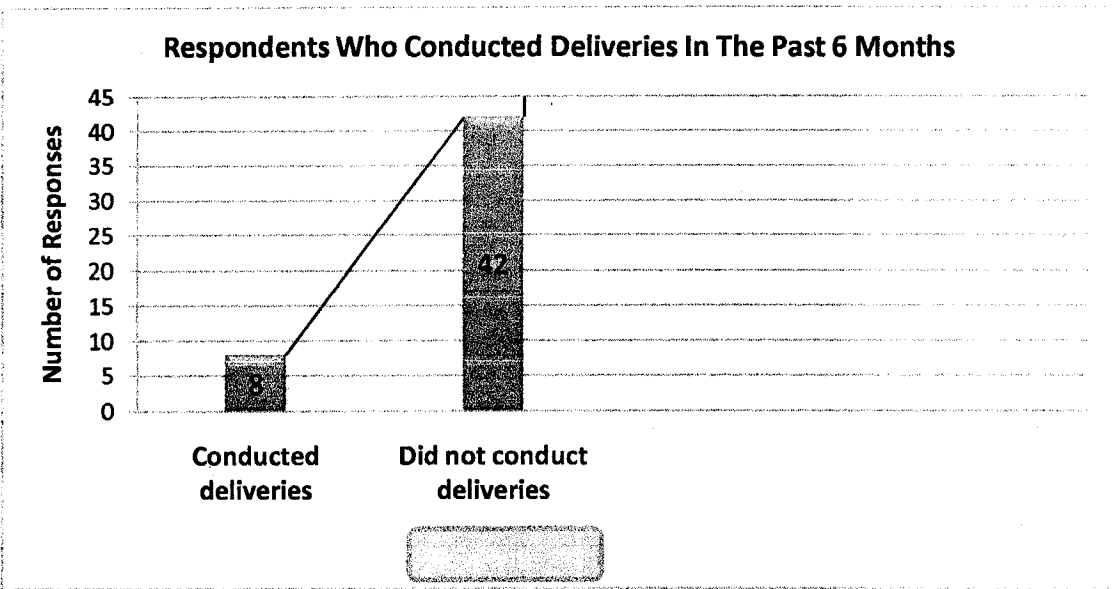


Figure 16 shows that, most of the respondents 84% (42) did not conduct deliveries in the past 6 months while 16% (8) conducted deliveries.

**Table 22: Respondents' who cleaned neonate's Eyes after Delivery in the last 6 Months (n=8)**

CLEANED NEONATES' EYES	FREQUENCY	PERCENTAGE
Always	5	62%
Occasionally	3	38%
Total	8	100%

Table 22 shows that, out of the 16% (8) respondents who conducted deliveries, 62% (5) out of 8 respondents, always cleaned neonate's eyes after delivery while 38% (3) cleaned them occasionally.

**Table 23: Respondents’ Responses on the Drugs they applied in Neonate’s Eyes after cleaning them (n=8)**

DRUG	FREQUENCY	PERCENTAGE
Tetracycline Eye Ointment	6	74%
Hydrocortisone eye drops	1	13%
Applied nothing	1	13%
Total	8	100%

Table 23 shows that, out of the 16% (8) respondents who cleaned the neonate’s eyes after delivery, 72% (6) applied tetracycline eye ointment (T.E.O), 14% (1) applied hydrocortisone eye drops and the other 14% (1) applied nothing.

**Table 24: Respondents’ Practice towards Prevention of Childhood Blindness (n = 50)**

PRACTICE	FREQUENCY	PERCENTAGE
Good	1	2%
Average	1	2%
Poor	48	96%
Total	50	100%

Table 24 shows that, 96% (48) of the respondents’ practice towards prevention of childhood blindness was poor, 2% (1) average and 2% (1) was good.

**Figure 17: Respondents’ Responses on Adequacy of Resources to use in the Prevention of CHB (n = 50)**

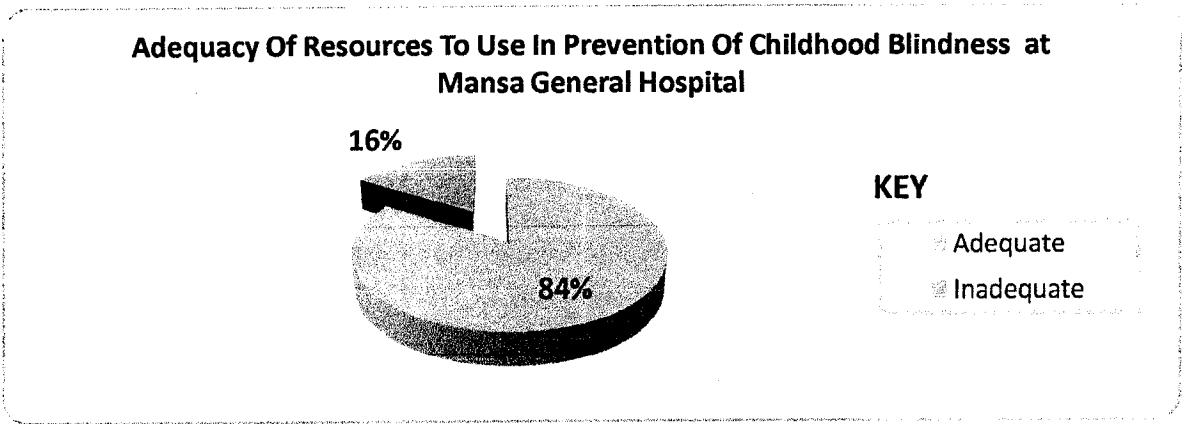


Figure 17 shows that 84% (42) of the respondents indicated that the resources required in the prevention of childhood blindness were adequate while 16% (8) indicated that it was not adequate.

**SECTION E**

**4.4.5: CROSS TABULATIONS**

**Table 25: Respondents’ Knowledge in Relation to Gender (n = 50)**

LEVEL OF KNOWLEDGE	GENDER		ROW TOTAL
	FEMALES	MALES	Freq / %
High Knowledge	6 (16%)	2 (17%)	8 (16%)
Average Knowledge	17 (45%)	3 (25%)	20 (40%)
Low Knowledge	15 (39%)	7 (58%)	22 (44%)
TOTALS	38 (76%)	12 (24%)	50 (100%)

Table 25 shows that, the majority 17% (2) out of 12 male respondents had high level of knowledge on prevention of childhood blindness as compared to 16% (6) out of 38 female respondents.

Table 26: Respondents' Knowledge in Relation to Professional Qualification (n = 50)

LEVEL OF KNOWLEDGE	PROFESSIONAL QUALIFICATION						ROW TOTAL Freq / %
	Reg. Nurses	Reg. Midwives	Reg. Theatre Nurses	Enrolled Nurses	Enrolled Midwives	Enrolled Psychiatric Nurses	
High Knowledge	2 (20%)	1 (20%)	0	5 (20%)	0	0	8 (16%)
Average Knowledge	4 (40%)	4 (80%)	1 (50%)	6 (24%)	4 (67%)	1 (50%)	20 (40%)
Low Knowledge	4 (40%)	0	1 (50%)	14 (56%)	2 (33%)	1 (50%)	22 (42%)
TOTAL	10 (20%)	5 (10%)	2 (4%)	25 (50%)	6 (12%)	2 (4%)	50 (100%)

Table 26 shows that, the majority 56% (14) out of 25 enrolled nurse respondents had low knowledge on prevention of childhood blindness as compared to 33% (2) out of 6 enrolled midwife respondents.

Table 27: Respondents' Knowledge in Relation to Years in Service (n = 50)

LEVEL OF KNOWLEDGE	YEARS IN SERVICE								ROW TOTAL Freq/%
	Less than 2	3-5	6-12	13-17	18-22	23-27	28-32	33-38	
High Knowledge	2 (50%)	0	1 (12%)	3 ((28%)	2 (20%)	0	0	0	8 (16%)
Average Knowledge	1 (25%)	1 (17%)	4 (50%)	4 (36%)	5 (50%)	1 (25%)	3 (60%)	1 (50%)	20 (40%)
Low Knowledge	1 (25%)	5 (83%)	3 (38%)	4 (36%)	3 (30%)	3 (775%)	2 (40%)	1(50%)	22 (44%)
TOTAL	4 (8%)	6 (12%)	8 (16%)	11(22%)	10(20%)	4(8%)	5(10%)	2(4%)	50 (100%)

Table 27 shows that, the majority 50% (2) out 4 respondents who had worked for less than 2 years had high knowledge on prevention of childhood blindness as compared to those who had worked for more than 2 years.

**Table 28:      Respondents’ Knowledge in Relation to Training in Eye Care (n = 50)**

LEVEL OF KNOWLEDGE	TRAINING IN EYE CARE		ROW TOTAL Freq/ %
	TRAINED	NOT TRAINED	
High Knowledge	1 (20%)	7 (16%)	8
Average Knowledge	2 (40%)	18 (40%)	20
Low Knowledge	2 (40%)	20 (44%)	22
TOTALS	5 (10%)	45 (90%)	50 (100%)

Table 28 shows that, respondents who were trained in eye care, 20% (1) out of 5 had high knowledge on prevention of childhood blindness than as compared to 16% (7) out of 45 who were not trained.

**Table 29:      Respondents’ Attitudes in Relation to Gender (n = 50)**

ATTITUDES	GENDER		ROW TOTAL Freq/ %
	FEMALES	MALES	
Positive	28 (74%)	11 (92%)	39 (78%)
Negative	10 (26%)	1 (8%)	11 (22%)
TOTALS	38 (76%)	12 (24%)	50 (100%)

Table 29 shows that, the majority 92% (11) out of 12 male respondents had positive attitudes towards prevention of childhood blindness as compared to 74% (28) out of 38 female respondents.



**Table 30: Respondents' Attitudes in Relation to Professional Qualification (n = 50)**

ATTITUDE	PROFESSIONAL QUALIFICATION						ROW TOTAL
	REG. NURSES	REG. MIDWIVES	REG. THEATRE NURSES	ENROLLED NURSES	ENROLLED PSYCHIATRIC NURSES	ENROLLED MIDWIVES	Freq/ %
Positive	9 (90%)	5 (100%)	2 (100%)	17 (70%)	1 (50%)	5 (83%)	39 (78%)
Negative	1 (10%)	0	0	8 (30%)	1 (50%)	1 (17%)	11 (22%)
TOTALS	10 (20%)	5 (10%)	2 (4%)	25 (50%)	2 (4%)	6 (12%)	50 (100%)

Table 30 shows that, 100% (5) out of 5 registered midwife respondents and 100% (2) out of 2 registered theatre nurse respondents, had positive attitudes towards prevention of childhood blindness compared to 50% (1) out of 2 enrolled psychiatric nurse respondents.

**Table 31: Respondents' Attitude in Relation to Years in Service (n = 50)**

ATTITUDE	YEARS IN SERVICE								ROW TOTAL
	Less than 2	3-5	6-12	13-17	18-22	23-27	28-32	33-38	Freq/ %
Positive	3 (75%)	6 (100%)	5 (71%)	9 (82%)	8 (80%)	2 (50%)	3 (60%)	2 (100%)	39 (78%)
Negative	1 (25%)	-	2 (29%)	2 (18%)	2 (20%)	2 (50%)	2 (40%)	-	11 (22%)
TOTAL	4 (8%)	6 (14%)	8 (14%)	11(22%)	10 (20%)	4 (8%)	5 (10%)	2 (4%)	50 (100%)

Table 31 shows that, 100% (6) out of 6 respondents who had worked for 3-5 years and 100% (2) out of 2 who had worked for 33-38 years had positive attitudes towards prevention of childhood blindness.

**Table 32:        Respondents’ Attitudes in Relation to Training in Eye Care (n = 50)**

ATTITUDE	TRAINING IN EYE CARE		ROW TOTAL
	TRAINED IN EYE CARE	NOT TRAINED IN EYE CARE	Freq/ %
Positive	4 (80%)	35 (78%)	39 (78%)
Negative	1 (20%)	10 (22%)	11 (22%)
TOTALS	5 (10%)	45 (90%)	50 (100%)

Table 32 shows that, the majority 80% (4) out of 5 respondents who were trained in eye care had positive attitudes towards prevention of childhood blindness compared to 78% (35) out of 45 respondents who were not trained in eye care.

**Table 33:        Respondents’ Practice in Relation to Gender (n = 50)**

PRACTICE	GENDER		ROW TOTAL
	FEMALES	MALES	Freq/ %
Good	0	1 (8%)	1 (2%)
Average	1 (3%)	0	1 (2%)
Poor	37 (97%)	11 (92%)	48 (96%)
TOTALS	38 (76%)	12 (24%)	50 (100%)

Table 33 shows that, the majority 97% (37) out of 38 female respondents had poor practices towards childhood blindness compared to 92% (11) out of 12 male respondents who had poor practices.

**Table 34: Respondents’ Practice in Relation to Professional Qualification (n = 50)**

PRACTICE	PROFESSIONAL QUALIFICATION						ROW TOTAL
	REG. NURSES	REG. MIDWIVES	REG. THEATRE NURSES	ENROLLED NURSES	ENROLLED PSYCHIATRIC NURSES	ENROLLED MIDWIVES	Freq/ %
Good	0	0	0	1 (4%)	0	0	1 (2%)
Average	0	0	0	0	0	1 (7%)	1 (2%)
Poor	10 (100%)	5 (100%)	2 (100%)	24 (96%)	2 (100%)	5 (83%)	48 (96%)
TOTALS	10 (20%)	5 (10%)	2 (4%)	25 (50%)	2 (4%)	6 (12%)	50 (100%)

Table 34 shows that, only 4% (1) out of 25 Enrolled Nurse respondents had good practices towards prevention of childhood blindness compared to 0% in other professions.

**Table 35: Respondents’ Practice in Relation to Years in Service (n = 50)**

PRACTICE	YEARS IN SERVICE								ROW TOTAL
	Less than 2	3-5	6-12	13-17	18-22	23-27	28-32	33-38	Freq/ %
Good	0	0	0	0	1 (10%)	0	0	0	1 (2%)
Average	0	0	0	1 (9%)	0	0	0	0	1 (2%)
Poor	4 (100%)	6 (100%)	8 (100%)	10 (91%)	9 (90%)	4 (100%)	5 (100%)	2 (100%)	48 (96%)
TOTAL	4 (8%)	6 (12%)	8 (16%)	11 (22%)	10 (20%)	4 (8%)	5 (10%)	2 (4%)	50 (100%)

Table 35 shows that, only 10% (1) out of 10 respondents who had worked for 18-22 years had good practices towards prevention of childhood blindness.

**Table 36:      Respondents’ Practice in Relation to Area of Allocation (n = 50)**

PRACTICE	AREA OF ALLOCATION								ROW TOTAL
	Eye depart	Surgical wards (FSW and MSW)	Medical wards (MMW, FMW, CMW, TB WARD and High Cost)	Psych. Depart	Mat. Ward	Clinics (OPD and Children’s Clinic)	Others (School, Blood Bank and Administration)	Theatre	Freq/ %
Good	1 (100%)	0	0	0	0	0	0	0	1 (2%)
Average	0	0	0	0	1 (20%)	0	0	0	1 (2%)
Poor	0	11 (100%)	20 (100%)	3(100%)	4 (80%)	3 (100%)	4 (100%)	3 (100%)	48 (96%)
TOTAL	1 (2%)	11 (22%)	20 (40%)	3 (6%)	5 (10%)	3 (6%)	4 (8%)	3 (6%)	50 (100%)

Table 36 shows that, 100% (1) out of 1 respondent allocated to eye department, had good practice towards prevention of childhood blindness compared to other wards and departments.

**Table 37: Respondents’ Practice in Relation to Training in Eye Care (n = 50)**

PRACTICE	TRAINING IN EYE CARE		ROW TOTAL
	HAD TRAINING	HAD NO TRAINING	Freq/ %
Good	1 (20%)	0	1 (2%)
Average	0	1 (2%)	1 (2%)
Poor	4 (80%)	44 (88%)	48 (96%)
TOTALS	5 (10%)	45 (90%)	50 (100%)

Table 37 shows that, 20% (1) out of 5 respondents who were trained in eye care had good practice towards prevention of childhood blindness as compared to 0% (0) out of 45 respondents who were not trained in eye care.

**Table 38: Respondents’ Attitudes in Relation to Knowledge on Prevention of CHB (n = 50)**

ATTITUDE	LEVEL OF KNOWLEDGE			ROW TOTAL
	HIGH KNOWLEDGE	AVERAGE KNOWLEDGE	LOW KNOWLEDGE	Freq/ %
Positive	7 (88%)	15 (75%)	17 (77%)	39 (78%)
Negative	1 (12%)	5 (25%)	5 (23%)	11 (22%)
TOTALS	8 (16%)	20 (40%)	22 (44%)	50 (100%)

Table 38 shows that, out of 8 respondents who had high knowledge on prevention of childhood blindness, 88% (7) had positive attitudes towards prevention of childhood blindness compared to 77% (17) out of 22 respondents who had low knowledge.

**Table 39: Respondents’ Practice in Relation to Knowledge on Prevention of Childhood Blindness (n = 50)**

PRACTICE	LEVEL OF KNOWLEDGE			ROW TOTAL Freq/ %
	HIGH KNOWLEDGE	AVERAGE KNOWLEDGE	LOW KNOWLEDGE	
Good	1 (14%)	0	0	1 (2%)
Average	0	1 (5%)	0	1 (2%)
Poor	7 (86%)	19 (95%)	22 (100%)	48 (96%)
TOTALS	8 (16%)	20 (40%)	22 (44%)	50 (100%)

Table 39 shows that, 100% (22) out of 22 respondents who had low levels of knowledge on prevention of childhood blindness had also poor practices in prevention of childhood blindness compared to 86% (7) out of 8 respondents who had high level of knowledge on prevention of childhood blindness but poor practices on prevention of childhood blindness.

**Table 40: Respondents’ Practices in Relation to Attitudes towards Prevention of Childhood Blindness (n = 50)**

PRACTICE	ATTITUDES		ROW TOTAL FREQ/ %
	POSITIVE	NEGATIVE	
Good	1 (3%)	0	1 (2%)
Average	0	1 (9%)	1 (2%)
Poor	38 (97%)	10 (91%)	48 (96%)
TOTALS	39 (78%)	11(22%)	50 (100%)

Table 40 shows that, 3% (1) out of 39 respondents who had positive attitudes towards prevention of childhood blindness had also good practices in prevention of childhood blindness compared to 0% (0) out of 11 respondents who had negative attitudes towards prevention of childhood blindness.

## **CHAPTER FIVE**

### **5.0 DISCUSSION OF FINDINGS.**

In this chapter, the research findings are discussed. The general objective of this study was to determine knowledge, attitudes and practices of nurses towards prevention of childhood blindness at Mansa General Hospital in Luapula Province. The study examined the demographic characteristics of respondents, their level of knowledge, their attitudes and practice towards prevention of childhood blindness. Furthermore, factors that affect their knowledge, attitudes and practice are also discussed. The results of this study are based on the analysis of data collected from 50 respondents who were randomly selected from Mansa General Hospital.

The assumption of the study was that factors such as lack of institutional policy on prevention of childhood blindness, training in the prevention of childhood blindness, work - over load, and inadequate resources to use in the prevention of childhood blindness among other variables influence nurses' knowledge, attitudes and practices towards prevention of childhood blindness.

### **5.1 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS**

The sample included 50 nurses aged between 21 to 60 years old. The majority of the respondents (26%) were in the age ranging between 41-45 years while (22%) were between the ages of 36-40 years. This shows that, there were more middle aged nurses than older and younger nurses at Mansa General Hospital.

The majority of the respondents were females (76%) while males were (24%). This shows that the nursing profession is still dominated by females ever since Florence Nightingale started modern nursing. The disparity could also be due to the fact that, (75%) of places in each and every Nursing School in Zambia are given to females and the remaining (25%) to males (General Nursing Council of Zambia, 2004). From the sample of 50 nurses, the majority of the respondents, (50%) were Enrolled Nurses while (20%) were Registered Nurses. The least were Registered Theatre Nurses and Enrolled Psychiatric Nurses representing (4%) each out of the

total respondents. This reflection may be because there are many schools for Enrolled Nursing (15) than Registered Nursing Schools (8) in the country (General Nursing Council of Zambia, 2006). Apart from this, Mansa School of Nursing had been training Enrolled Nurses until 2001 when it was upgraded to a registered nursing school and many graduates prefer to work at the local hospital as seen in table 6 that, (36%) of the respondents were trained at Mansa School of Nursing. Registered Theatre Nurses were few for the fact that, there is only one school for Theatre Nursing in the country. Enrolled Psychiatric nurses were also few because in 1991, the government stopped training Enrolled Psychiatric Nurses and started training Registered Psychiatric Nurses at speciality level.

Out of the sample of 50, (22%) of the respondents had been in service for 13-17 years followed by 20% of those who had served for 18-22 years. This shows that most of the respondents were experienced in the provision of nursing care. Table 7 shows that, respondents were drawn from all departments of the hospital and this means that all departments were represented.

Table 8 shows that, the majority (15.1%) of the total nursing staff was allocated to Maternity Ward and (9.3%) were allocated to Female Surgical Gynae Ward while (1.2%) of the total staff was allocated to Children's Clinic. Maternity Ward has received much attention because it is considered to be a very busy ward. Female Surgical Ward at Mansa General Hospital is a 3 in one Ward consisting of Female Surgical, Children's Surgical and Gynae Wards. This ward is also considered to be a very busy ward hence having a larger number of nurses being allocated to these wards. On the other hand Children's Clinic, which is another busy department, has only (1.2%) of the total staff at the institution. This may imply that, staff in Maternity ward and Gynae ward, are strategically placed and are at the advantage to carry out more activities concerning prevention of childhood blindness as compared to other wards and departments especially children's clinic.



## **5.2 DISCUSSION OF VARIABLES**

### **5.2.1: KNOWLEDGE ON CHILDHOOD BLINDNESS**

Knowledge is a person's range of information (Oxford English Dictionary, 2002). This variable helped to explore the level of knowledge or information that respondents had on prevention of childhood blindness. Knowledge on childhood blindness would determine the extent to which nurses would implement activities aiming at preventing childhood blindness in the population.

Knowledge is an ingredient component in the delivery of quality nursing care and it implies that the nurse has the skill to provide evidence based care. In accordance with the Zambia Demographic Health survey done between 2001 and 2002, it was established that knowledge is a precondition to higher utilization of any given service (CSO, 2003).

On this variable, the respondents were asked on the definition of childhood blindness and its causes in relation to intrauterine causes, perinatal causes, causes due to corneal ulceration and other causes. They were also asked on the definition of Ophthalmia Neonotorum and its prevention and on strategies used in the prevention of childhood blindness.

The majority of respondents, (78%) had heard about childhood blindness. The source of information for most of them, (38%) was from clinical area (figure 6). This could mean that, there was a programme in place within the hospital, even though not everyone was aware. The results show that, the majority of the respondents (90%) did not receive any training in eye care while 10% received training in eye care. This may be due to lack of an in – service training at Mansa General Hospital or it may not be a priority programme for the hospital management team.

The study revealed that the majority of respondents, (56%) understood the meaning of childhood blindness and (26%) did not know (figure 8). It was, therefore, concluded that this information was probably from ophthalmic nursing, which is normally covered at basic nurse training. Although the majority of respondents understood the meaning of childhood blindness, only (40%) (Table 9) knew that, Rubella and Toxoplasmosis were intrauterine causes of childhood

blindness and (26%) did not know. This may mean that, counselling of parents on possible causes of intrauterine childhood blindness may be affected. On perinatal causes of childhood blindness, only (16%) of the respondents knew that, birth hypoxia and retinopathy of prematurity are the causes of perinatal childhood blindness. This may mean that, nurses would take little or no precautions to prevent childhood blindness due to birth hypoxia and retinopathy of prematurity in their working places. This is in accordance with a study conducted by Awolola et al, (2000) on Knowledge and beliefs about causes, transmission, treatment and control of human onchocerciasis in rural communities in south Western Nigeria. This demonstrated that people's knowledge on the cause of infection and transmission was very poor. Only (3%) related the clinical manifestations of onchocerciasis to Simulium bites while (36%) percent had no idea of the cause of infection. This demonstrated that, their treatment and control measures of the disease were also poor.

On causes of childhood blindness due to corneal ulcerations (Table 11), (44%) of the total respondent's were able to identify vitamin A deficiency, (72%) measles infection, (66%) Ophthalmia Neonotorum, (76%) harmful traditional eye medications and (90%) of the total respondents were able to identify infective corneal ulcers as causes of childhood blindness. This indicated that, generally, nurses were knowledgeable on conditions causing corneal ulceration and may be able to take measures aiming at prevention of childhood blindness due to corneal ulcerations. The study also shows that, (26%) of the respondents identified Cataract, Glaucoma, Refractive Errors and Uveitis as causes of childhood blindness. (20%) of the respondents identified Cataract, Glaucoma and Uveitis and there were only (10%) of the respondents who did not know any other cause of childhood blindness. This may mean that, at least nurses may be able to give advice to clients on causes of childhood blindness resulting from these conditions. This is in accordance with a survey conducted by Saikumar, (2002) in diabetic patients who attended out-patient department in India to determine awareness about the eye complications of diabetes. This revealed that 84% of patients were aware that DM could affect the eye and about 50 per cent of them knew that routine eye checks were necessary even if DM was well controlled.

The study revealed that, the majority of the respondents (figure 9), (58%), identified the signs and symptoms of Ophthalmia Neonotorum. There was only (2%) of the respondents who did not

know any sign and symptom of Ophthalmia Neonotorum. However, on when they are supposed to clean the neonates' eyes as a preventive measure of Ophthalmia Neonotorum, respondents gave different responses. There were (44%) of the respondents who responded that, neonates' eyes are supposed to be cleaned just after the delivery of the baby, (34%) responded that, eyes are supposed to be cleaned just after the head has been delivered while (6%) responded that, neonates' eyes are supposed to be cleaned at least a day after delivery and (4%) responded that, eyes can be cleaned at any time a nurse feels like cleaning.

These differences are in line with Praveen, et.al (2004) whose study revealed that there were different advices which were being provided by Community Health Practitioners regarding strabismus. These differences may mean that, prevention of childhood blindness due to Ophthalmia Neonotorum may not be effective if knowledge on prevention of childhood blindness is not harmonized.

The study also revealed that, only (6%) of the respondents were able to identify povidone eye drops and tetracycline eye ointment as drugs used in the prevention of Ophthalmia Neonotorum while (50%) of the respondents identified tetracycline eye ointment only and (4%) of the respondents identified povidone eye drops only. The rest (40%) of the respondents did not know any drug which can be used in the prevention of Ophthalmia Neonotorum. The (40%) of nurses who do not know any drug which can be used in the prevention of Ophthalmia Neonotorum is worrying. This may affect the effectiveness of the prevention of childhood blindness due to Ophthalmia Neonotorum. This is in line with what Awolola et al, (2000) found in a study to determine the Knowledge and beliefs about causes, transmission, treatment and control of human onchocerciasis in rural communities in South Western Nigeria the study demonstrated that people's knowledge of the cause of infection and transmission was very poor. Only (3%) related the clinical manifestations of onchocerciasis to Simulium bites while (36%) percent had no idea of the cause of infection and the rest attributed the clinical symptoms of the disease to many other causes. When this was related to control measures of the disease, it was also poor.

The study revealed that, majority of the respondents, (100%) indicated that vitamin A supplementation was one of the strategies used in the prevention of childhood blindness followed by nutritional education, indicated by (90%) of the respondents and measles immunization

indicated by (88%) respondents. Only (28%) of the respondents indicated that, clean water supply is one of the strategies used in the prevention of childhood blindness. This may mean that, personal hygiene may not be emphasized by nurses as one of the strategies of preventing childhood blindness. The study conducted by Assegid, (2006) in Ethiopia, also found that, there was little knowledge among the respondents over the supply of clean water in the prevention of Trachoma. In this study, one of the themes that emerged from discussions included a quest for clean water supply with legal enforcement in terms of facial and environmental hygiene.

Although (100%) of the respondents indicated that, vitamin A is one of the strategies used in the prevention of childhood blindness; the majority (56%) of the respondents did not know the correct treatment protocol of vitamin A in vitamin A deficiency. This is in line with Banzi (2006) in a study to assess community awareness about the Kilimanjaro VISION 2020 Direct Referral Site (DRS) eye care programme in Tanzania and the effectiveness of promotion strategies to increase the use of eye care services, and to solicit ideas on how these activities can be improved. The qualitative analysis showed that a high level of awareness about eye diseases, with cataract emerging as the most commonly recognized eye problem. Some people were aware that an operation was the treatment for cataract, but there was limited understanding amongst the community and health facility workers of what the operation entailed.

On the policy of prevention of childhood blindness, (56%) of the respondents indicated that, they were not aware whether, a policy was available at the hospital or not while (28%) indicated that the policy was not available. A policy is a course of action adopted by a government, business or an individual (Oxford Dictionary, 2002) and if not available at the institution, nurses will not be guided in their activities; hence they will be carrying them out haphazardly. The need for policies in prevention programmes was emphasized by Chanda (2004) in a book *“An infection Prevention Manual for Community and Health Care Institutions in Developing Countries”*, where she outlined that, formulation of infection prevention policies and guidelines to ensure quality of care was one of the components of the programme.

Over all, the majority, (44%) of the respondents had low levels of knowledge on the prevention of childhood blindness while only (16%) of the respondents had high levels of knowledge. Generally, the study results show that, nurses' level of knowledge on prevention of childhood

blindness was low. It is for the author's opinion that, the lack of knowledge on prevention of childhood blindness has an important implication for the provision of eye care by nurses and this may result in avoidable childhood blindness. This answers the first objective of this study which aimed at determining the knowledge of nurses on prevention of childhood blindness.

The study also reviewed that, the majority (56%) of Enrolled Nurse respondents had low levels of knowledge on prevention of childhood blindness compared to (50%) of Registered Theatre Nurses with low levels of knowledge. High level of knowledge was observed in Registered Nurses (20%), Registered Midwives (20%) and Enrolled Nurses (20%). The assumption was that, there is a relationship between a professional rank and level of knowledge among nurses. According to the findings of this study, this assumption was rejected despite having 56% of Enrolled Nurses having low knowledge on prevention of childhood blindness this is because it was within the range of other category of nurses. This is in line with the study conducted by Phiri (2007), (*Knowledge and Practices of Nurses towards Emergency Preparedness*) who rejected this assumption. This shows that there are other factors which can influence knowledge.

The majority (50%) of the respondents who had worked for less than 2 years had high knowledge on prevention of childhood blindness as compared to those who had worked for more than 2 years. The reason could have been that, these nurses had just completed their training and could still remember what they were taught at school as they also indicated that they first heard about prevention of childhood blindness at school. Another reason could be that they were still young and they knew the importance of having sight. This is in accordance with the study conducted by Livingston, McCarty and Taylor (1998) on Knowledge, Attitudes, and Self Care Practices Associated with Age Related Eye Diseases in Australia. The study showed that younger people believed blindness prevention and blindness treatment were the highest priorities compared with other diseases.

The study showed that, (44%) of respondents who were not trained had low knowledge compared to (40%) of the respondents who were trained. The discrepancy could have been attributed to the specialised training respondents had. The hypothesis of the study was "*The specialised training of nurses in eye care, the more successful the prevention of childhood blindness*" so according to the findings of this study, the researcher failed to reject the

hypothesis as discrepancies between the trained and non trained respondents in knowledge were evident. This is in accordance with Curtale (2000) who conducted a study to analyze the effects of a Nutrition Education Intervention (NEI), specifically designed to reduce vitamin A deficiency, on skills and utilization of Community Health Volunteers (CHV). At the end of two years implementation, the CHVs showed an improved ability to detect and treat a range of common diseases such as diarrhea, night blindness and malnutrition. In the same way, nurses who were empowered and involved in eye care were knowledgeable about Prevention of Childhood Blindness.

The objective of determining the level of knowledge of nurses on childhood blindness was met and the research findings revealed that, (44%) of the respondents had low levels of knowledge. As this study was done in a hospital with an eye department, knowledge levels on prevention of childhood blindness in nurses in other institutions are likely to be lower.

### **5. 2. 2: ATTITUDE TOWARDS PREVENTION OF CHILDHOOD BLINDNESS**

An attitude is an internal state that influences or moderates the choices of personal action made by an individual (Gagne, 1985:63). Attitudes are learnt as individuals develop during childhood and adulthood life. The study restricted itself to the attitudes that nurses may have towards prevention of childhood blindness.

The study revealed that, the majority of the respondents (58%) indicated that childhood blindness was a major health concern in Zambia. Some of the reasons respondents gave for blindness being a major health concern were as follows; Childhood Blindness affects children who are the leaders of tomorrow. Some said sight was essential for survival and people with no sight could not defend themselves and they were prone to poverty and all mistreatment from other people. Others said that, having many blind people in the nation was a draw back to the nation's economy as there would be only a few people to contribute to the economy while others would be dependants as a result government would be spending more money but little income to sustain its economy. Others said that, blind people become burdens on others as they are supposed to be taken where ever they want to go even to the toilet. On the other hand, (36%) of the respondents indicated that it was not a major health concern in Zambia for the following reasons; they had

not seen many cases of childhood blindness in these communities and not even in the records of health facilities. Childhood blindness is not even among the ten diseases which are given priority by the Ministry of Health. Nevertheless, most of the respondents (94%) indicated that they were interested in providing eye care for the prevention of childhood blindness. Basing on the stated willingness of nurses to provide eye care for the prevention of childhood blindness, the Ministry of Health and the management can find ways of involving nurses in preventing Childhood Blindness. These findings correlate with the survey conducted by Klein in 2007 on the Role of Faith Communities in HIV Prevention in New York. In her survey, she found that (50%) of the respondents were willing to be involved in the prevention of HIV and AIDS. Basing on the willingness of Faith Communities to explore the possibility of becoming more involved in HIV prevention, the AIDS Institute convened a meeting for religious leaders and HIV/AIDS service providers. This strategy was successful and lines of communication were established, relationships fostered and subsequent activities ensued.

The study also revealed that (96%) of the respondents thought prevention of CHB is a duty for all health workers and (94%) of the respondents thought nurses can contribute to the prevention of CHB. They said that, nurses form a large sector of health workers. They are found at all levels of health care systems and country wide. Nurses are in most cases the only health workers who can be accessed in rural areas. Nurses are easy to approach by health care consumers therefore services can be utilized very well. Above all, Nurses start to attend to a child while in utero, then at birth and continue attending to him or her until when he/she reaches 5 years, hence, they are in a good position to prevent childhood blindness effectively. These findings are in support of the findings of CSO (2003). The survey reported that, out of the (93%) of the respondents who received antenatal care from medical personnel, 80% of urban and rural residents were attended to by midwives as compared to 20% shared between doctors and non midwife nurses.

The findings revealed that, the majority (92%) of the respondents felt that, a policy on the prevention of childhood blindness was necessary. The reason they gave for having a hospital policy on the Prevention of Childhood Blindness was that, it directs their activities and practices. With a policy in place every nurse would be in a position to carry out activities aiming at preventing childhood blindness and it would also harmonise their practices. These findings are supported by Chanda (2004) who emphasised that policies are very essential because they

ensured compliance to infection prevention measures and they provide the much – needed support to health care providers.

The study shows that, all (100%) Registered Midwife respondents and all (100%) Registered Theatre Nurses respondents had positive attitudes towards prevention of childhood blindness compared to (50%) of Enrolled Psychiatric Nurses who had positive attitudes towards prevention of childhood blindness. This could be attributed to their low level of knowledge on prevention of childhood blindness. This is accordance with what Mulenga, (1997) found in her research (*Knowledge, Attitudes and Practices of Nurses towards Nursing Process at Kitwe Central Hospital*). Her study revealed that, most Enrolled Nurses had a negative.

The study also shows that, the majority (80%) respondents who were trained in eye care had positive attitudes towards prevention of childhood blindness. It was also found that, out of 8 respondents who had high levels of knowledge on prevention of childhood blindness, (88%) had positive attitudes towards prevention of childhood. These findings are supported by the study conducted by Martin et. al, (2006) which reported that, participants who were knowledgeable on the nursing process had held a relatively positive attitude toward the nursing process and nursing diagnosis.

The study also revealed that, (78%) of the respondents out of 50 had a positive attitude on prevention of childhood blindness while (22%) had a negative attitude. These findings suggest that, if the programme was scaled to nurses childhood blindness would be prevented because nurses are in much support.

The objective of establishing the attitude of nurses on prevention of childhood blindness was met and research findings indicated that (78%) of respondents had positive attitude towards prevention of childhood blindness.

### **5.2.3: PRACTICE TOWARDS PREVENTION OF CHILDHOOD BLINDNESS**

Practice is a habitual action or performance or a repeated activity undertaken in order to improve a skill (Oxford English Dictionary, 2002). In this study, the practice of nurses towards prevention of childhood blindness was determined.



The study revealed that, the majority (96%) of the respondents' practice towards prevention of childhood blindness was poor. Out of 50 respondents, only (14%) of them participated in the prevention of childhood blindness 6 months prior to this study. Out of the (14%) respondents who participated in the prevention of childhood blindness, (10%) participated in child health week activities, (2%) in the giving of information, education and communication (IEC) and the other (2%) in treating common eye infections. On the other hand, the (86%) of the respondents who did not participate in the prevention of childhood blindness, sighted reasons such as, lack of exposure to the prevention of childhood blindness activities and not being in contact with children. Others responded that, activities for the prevention of childhood blindness were restricted to the eye department and there were no guidelines to follow in preventing childhood blindness. The (2%) of the total respondents indicated that, they had no knowledge on the prevention of childhood blindness. These findings were supported by the study conducted by Mbanya et. al, (2000) on Health Service Factors Influencing Knowledge, Attitude and Practices of Nurses Towards HIV/AIDS. The study reported that, the major Health Service Factors that influence knowledge, attitudes and practices that were approved by many nurses were lack of adequate information by personnel (due to the absence of refresher courses and seminars); the lack of commitment to change attitudes and practices by informed personnel (influenced by the lack of sufficient means to enable them comply completely with standard regulations) and the lack of in-service promotions.

The study also shows that, (16%) of respondents conducted deliveries 6 months prior to this study. Out of the (16%) respondents who conducted deliveries, (10%) of the respondents always cleaned the neonate's eyes after delivery while (6%) cleaned occasionally. Out of the (16%) of respondents who conducted deliveries, (12%) of them applied tetracycline eye ointment (T.E.O) after cleaning the neonates' eye, (2%) applied hydrocortisone eye drops and another (2%) did not apply anything. This implies that activities on the prevention of childhood blindness were not coordinated and there were no guidelines on which eye drop to apply into the neonates' eyes after cleaning them. Some nurses ended up applying a wrong drug (Hydrocortisone) into neonates' eyes which is dangerous. It is the author's opinion that, if nurses' knowledge on prevention of childhood blindness is not improved and guide lines not formulated, nurses can be a source of childhood blindness instead of preventing it.

Research findings revealed that, only (20%) of out 5 respondents who were trained in eye care had good practice towards prevention of childhood blindness and all (100%) of respondent allocated to eye department (Table 36%), had good practice towards prevention of childhood blindness. This may be due to the fact that, these nurses are required to perform these tasks in their area of allocation. This is also supported by the study conducted by Curtale (2000) on a study to analyze the effects of a Nutrition Education Intervention (NEI), specifically designed to reduce vitamin A deficiency and utilization of Community Health Volunteers (CHV). At the end of two years implementation, the study reported that, CHVs who were associated with the NEI program showed an improved ability to detect and treat a range of common diseases as compared with the CHVs not associated with the intervention program.

The objective of determining the practices of nurses towards prevention of childhood blindness was met and the study findings revealed that (96%) of the respondents' practice was poor and that all (100%) of those respondents who were placed in eye department had good practice. Since this study was conducted at a General Hospital which has an eye department, the level of practice in other institutions may show similar results. The hypothesis of the study was "***the specialized training of nurses in eye care the more successful the prevention of childhood blindness***". However, these findings are contrary to the alternative hypothesis and the researcher rejected it. This means that, to knowledge there are other factors such as policies and guidelines which can improve the participation of nurses in the prevention of childhood blindness.

Research findings revealed that there was a significant positive correlation between knowledge and attitude as all (100%) of the respondents who had low levels of knowledge on prevention of childhood blindness had poor practices on prevention of childhood blindness. This means that, the better knowledge the respondents have on prevention of childhood blindness, the better their attitude is towards prevention of childhood blindness. In this study, there was a weak correlation between attitude and practice as out of 39 respondents who had positive attitudes, only (3%) had good practice. In this study there was a correlation between knowledge and practice as out of 8 respondents who had high levels of knowledge, (14%) of them had good practice towards prevention of childhood blindness. However this correlation was not strong enough. This is supported by the study conducted by Phiri (2007). The study revealed that it was not always that being knowledgeable will make nurses to have good practice.

### **5.3: IMPLICATION TO THE HEALTH CARE SYSTEM**

The study findings have implications to the problem under study as well as its objectives and hypothesis. The study revealed that (50%) of Enrolled Nurse respondents had low levels of knowledge on prevention of childhood blindness (Table 26). Enrolled Nurses are practical nurses and they are the majority among nurses. Their low levels of knowledge in prevention of childhood blindness may affect the successful implementation of the programme. High level of knowledge (28%) was observed in those respondents who had worked for 13 – 17 years (Table 27). This shows that, it is important for hospital administrators to maintain experienced nurses as experience goes with high level of knowledge. These experienced nurses can be used in work shops and wards to teach newly qualified nurses in prevention of childhood blindness. Positive attitudes (100%) were observed in Registered Nurse respondents. Registered Nurses are mostly managers and supervisors in health institutions. These nurses can be used to inspire and motivate other nurses to implement measures aiming at preventing childhood blindness.

These findings have implications on the four main components of nursing which are practice, education, administration and research.

#### **5.3.1: NURSING EDUCATION**

The study findings revealed that (44%) of nurses' level of knowledge on prevention of childhood blindness was low (Figure 11). This implies that there is need for General Nursing Council of Zambia to expand the body of knowledge in ophthalmic nursing on prevention of childhood blindness. Tutors and Clinical Instructors handling students should be trained and oriented on childhood blindness to enable them teach and supervise students effectively.

#### **5.3.2: NURSING PRACTICE**

The study findings revealed that (96%) of nurses' practice towards prevention of childhood blindness was poor (Table 24) but (78%) of them their attitudes were positive (Table 19). This implies that, there is need to set up guidelines in each and every hospital department which will

guide nurses in the practice of prevention of childhood blindness. There is also a need to have trainings and reorientation of nurses in prevention of childhood blindness, otherwise, prevention of childhood blindness will not be a success.

### **5.3.3: NURSING RESEARCH**

The study findings of this study have revealed that, no research has so far been conducted on Knowledge, Attitude and Practices of Nurses towards Prevention of Childhood Blindness in Zambia. This implies that, there is need to invest more in research of this kind to improve the body of knowledge not only to nursing but to eye care as well. The Ministry of Health, Non Governmental Organizations and eye care providers should also collaborate with institutions of higher learning such as Post Basic Nursing Department in the School of Medicine at the University of Zambia to encourage and fund students who are taking up such projects.

### **5.3.4: NURSING ADMINISTRATION**

Literature review revealed that, eye infection is among the top 10 diseases in Mansa District. However, childhood blindness has not been regarded as one of them and it has not been captured in the reporting system. This implies that Administrators should be in the forefront working out logistics that can empower nurses to prevent childhood blindness. They should be conducting regular nursing audits to ensure that nurses adhere not only to childhood blindness prevention but also to other guidelines.

## 5.4: CONCLUSION

The aim of the study was to determine knowledge, attitudes and practices of nurses towards prevention of childhood blindness at Mansa General Hospital in Luapula Province of Zambia. A sample of fifty (50) nurses was selected from Mansa General Hospital using a simple random sampling method. Data was collected using a self administered questionnaire.

The sample included 50 nurses aged between 21 to 60 years old of which the majority (26%) were in the age ranging between 41-45 years while (22%) were between the ages of 36-40 years. The majority of the respondents (76%) were females. Most of the respondents (50%) were Enrolled General Nurses while (20%) were Registered General Nurses. The majority of the respondents (22%) had been in service for 13-17 years while (20%) of them had served for 18-22 years.

The most striking finding in the study was that, the majority of the respondents (96%) had poor practice towards childhood blindness.

The study revealed that knowledge and attitude were not the only factors that affected the practice of prevention of childhood blindness among nurses. Factors like specialised training in eye care, placement of nurses and institution policies contributed to either good or bad practice of nurses towards prevention of childhood blindness. It is therefore, important to have all these factors attended to in order to improve the nurses' practise in the prevention of childhood blindness.

In this study, the study population (86 Nurses) was represented by 58% of the respondents and there was no reason to suspect that non-responders were substantially different from the responders. The hypothesis of the study was *"The specialised training of nurses in eye care, the more successful the prevention of childhood blindness"*. In view of the research findings, the researcher failed to reject the hypothesis. Based on the study findings, the researcher went on to make recommendations to the various authorities in the health care system.

## **5.5: RECOMMENDATIONS**

In view of the research findings, the researcher wishes to make the following recommendations to the Ministry of Health and the Hospital Management:

### **Ministry of Health**

- The Ministry of Health (MoH) as the policy making body should ensure that, policies on prevention of childhood blindness are formulated and disseminated to all health institutions by involving all stake holders such as sight servers and health workers.
- The MoH should review the system of reporting certain diseases and conditions so that, conditions such as childhood blindness can be captured as well. This will help in the determination of the extent of the problem and will serve as an indicator in the evaluation of the services.
- The ministry should embark on training nurses on the prevention of blindness through work shops for the programme to be successful.
- The results of this study suggest for the need of a bigger study to cover the all Hospitals in Zambia to determine the knowledge, attitudes and practices of nurses towards prevention of childhood blindness.
- The Ministry of Health and Non Governmental Organizations dealing with eye care should collaborate with institutions of higher learning such as Post Basic Nursing Department in the School of Medicine at the University of Zambia to encourage students to research on eye health.

### **To the Hospital Management**

- The Hospital management should formulate hospital policies on prevention of childhood blindness and ensure that all nurses have guidelines to follow in the prevention of childhood blindness.

- Management through the in-service department should plan and conduct in-service training programs on prevention of childhood blindness to acquaint nurses with knowledge on how to prevent childhood blindness.

#### **5.6: LIMITATIONS**

- It was not possible to conduct the study on a larger sample size due to limited time in which the study was to be completed and submitted to the University of Zambia. This means that, the findings can not be generalised to a larger population.
- There was inadequate literature on prevention of childhood blindness in Zambia as a result; the Researcher used examples from other disciplines to justify the findings.

#### **5.7: DISSEMINATION OF FINDINGS**

Dissemination of findings entails the measures that would be undertaken to make known to the relevant authorities and study subjects what the study has measured. The findings of this study will be disseminated by presenting summaries of research findings to the management of Mansa General Hospital with the necessary recommendations on Knowledge, Attitude and Practice of Nurses towards Prevention of Childhood Blindness. The researcher will arrange for a presentation of the research findings in the Management meeting to all the top management and other departmental heads.

A copy each of the final report will be printed, bound and submitted to the Department of Post Basic nursing, the Medical library, the Ministry of Health as sponsors through USAID and a copy to the investigator. Attempts will be made to disseminate the findings of the study at any conference and through printed media for public consumption and action.

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APPENDIX 1

SELF ADMINISTERED QUESTIONNAIRE FOR NURSES

<p><b>TOPIC:</b></p> <p><b>A STUDY TO DETERMINE KNOWLEDGE, ATTITUDES AND PRACTICES OF NURSES TOWARDS PREVENTION OF CHILDHOOD BLINDNESS</b></p>
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Questionnaire number..... Date.....  
Hospital.....

INSTRUCTIONS FOR THE RESPONDENTS

- 1. Your participation in this study is voluntary.
- 2. **Do not** write your name any where on this questionnaire.
- 3. Answer **all** the questions in this questionnaire.
- 4. For questions provided with alternatives, **tick** your answers in the boxes provided.
- 5. For questions without alternatives, **write down** your responses in the spaces provided.
- 6. Be **honest** when answering these questions.
- 7. Be assured that all the information provided will be treated strictly **confidential** and only be used for the purpose it is intended for.

SECTION A

DEMOGRAPHIC DATA

FOR OFFICIAL USE

1. How old are you on the last birth day?

- a) 21 – 25
- b) 26 – 30
- c) 31 – 35
- d) 36 – 40
- e) 41 – 45
- f) 46 – 50
- g) 51 – 55
- h) 56 – 60

2. Gender

- a) Female
- b) Male

3. What is your Rank?

- a) Enrolled Nurse
- b) Registered Nurse
- c) Enrolled Theatre Nurse
- d) Registered Theatre Nurse
- e) Enrolled Midwife
- f) Registered Midwife
- g) Enrolled Mental Health Nurse
- h) Registered Mental Health Nurse
- i) Ophthalmic Nurse
- j) Others; Specify .....

4. Where, were you first trained as a Nurse? .....
5. When did you qualify from the school of nursing? .....
6. What is your current ward/department allocation? .....
7. How many nurses are in your department? .....

SECTION B

KNOWLEDGE ON CHILDHOOD BLINDNESS

8. Have you ever heard of childhood blindness prevention?
- a) Yes ☐
- b) No ☐
9. If "Yes", where? .....
10. Have you received any special training in eye care?
- a) Yes ☐
- b) No ☐
11. If "Yes" specify .....
12. Define **childhood blindness** in your own words.
- .....
- .....
13. Tick all **intra - uterine conditions** which can cause childhood blindness in the list below.
- a) Rubella ☐
- b) Harmful traditional eye medication ☐

- c) Toxoplasmosis ☐
- d) Infective corneal ulcers ☐
- e) Measles ☐
- f) Skin infections ☐
- g) Malaria ☐

14. In the list below, tick all **perinatal causes** of childhood blindness.

- a) Retinopathy of prematurity ☐
- b) Vitamin A deficiency ☐
- c) Measles infection ☐
- d) Rubella ☐
- e) Birth hypoxia ☐

15. In the list below, tick all causes of childhood blindness which are due to corneal scarring.

- a) Vitamin A deficiency ☐
- b) Measles infection ☐
- c) Rubella ☐
- d) Ophthalmia neonatorum ☐
- e) Traditional eye medication ☐
- f) Infective corneal ulcers ☐

16. In the list below, tick other causes of childhood blindness.

- a) Cataract ☐
- b) Glaucoma ☐
- c) Malaria ☐
- d) TB ☐
- e) Refractive errors ☐
- f) Uveitis ☐

17. Do you know the signs and symptoms of eye infections in a newborn infant?

- a) Yes ☐
- b) No ☐

18. If yes, tick the correct answers

- a) Redness in both eyes ☐
- b) Moist cornea ☐
- c) Shinning cornea ☐
- d) Pus discharge ☐
- e) Swollen eye lids ☐
- f) Starts 28 days after birth ☐

19. Do you know what Ophthalmia Neonotorum is?

- a) Yes ☐
- b) No ☐

20. If yes, state in your own words what it is.

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.....

21. Do you know how to prevent Ophthalmia Neonotorum during delivery?

- a) Yes ☐
- b) No ☐

22. If yes, choose one correct answer.

- a) Instilling breast milk in the infant's eyes ☐
- b) Cleaning of infant's eyes immediately after birth ☐
- c) Instilling hydrocortisone eye drops in the infant's eyes. ☐
- d) Protect the infant's eyes from sun light. ☐



23. Do you know when to clean the eyes of newborn in order to prevent Ophthalmia Neonotorum during delivery?

a) Yes ☐

b) No ☐

☐

24. Do you know the eye drops that midwives use to instil into newborn infant's eyes after cleaning them?

a) Yes ☐

b) No ☐

☐

25. If Yes, tick the correct answer from the listed drugs

a) Chloramphenicol eye drops ☐

b) Povidone eye drops ☐

c) Tetracycline eye ointment ☐

d) Hydrocortisone eye drops ☐

e) Ketoconazole eye drops ☐

☐

26. Tick all the strategies you know that can be used to prevent childhood blindness at primary health care level.

a) Measles immunization ☐

b) Vitamin A supplementation ☐

c) Nutritional education ☐

d) Information, education and communication on eye health ☐

e) Cleaning of eyes of newborn children ☐

f) Clean water supply ☐

☐

27. What is the treatment of vitamin A deficiency? Choose one correct answer.

a) Vitamin A three times a day for 3 days ☐

b) Vitamin A once a day for three days ☐

c) Vitamin A once a day for two days then another dose

after eight days ☐

☐

- d) Vitamin A start
- e) Vitamin A once daily for five days.

SECTION C

ATTITUDE

28. Do you think childhood blindness is one of the major health problems in Zambia?

- a) Yes
- b) No

29. If the answer to question 28 is “Yes” why do you think it is one of the major health problems in Zambia?

30. If the answer to question 28 is “No” why do you think it is not?

31. Are you interested in providing eye care services?

- a) Yes
- b) No

32. If the answer to question 31 is “Yes” why?

33. If the answer to question 31 is “No” why?

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.....

.....

34. Do you think prevention of childhood blindness should be the duty for Eye Specialists only?

a) Yes

b) No

35. If the answer to question 34 is “Yes” why?

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36. If the answer to question 34 is “No” why?

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.....

37. Do you think that nurses can contribute to the prevention of childhood blindness?

a) Yes

b) No

38. If yes, give your opinion.

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39. If no-to question 37, give your opinion.

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40. Do you feel your hospital should formulate a policy on prevention of childhood  
Blindness in the obstetric unit?

a) Yes     

b) No       

41. If yes, give reasons.

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42. If no, give reasons.

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**SECTION D**

**PRACTICE**

43. Do you have a policy at your hospital which supports the practice of nurses in  
preventing childhood blindness?

a) Yes     

b) No       

44. If yes, do midwives/nurses put it into practice?

a) Yes     

b) No

45. If yes, justify your answer.

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.....  
.....

46. If no, give reasons.

.....  
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.....

47. If you have a policy at your institution, do you have access to this policy?

a) Yes ☐  
b) No ☐

48. Have you participated in the prevention of childhood blindness in the past six months?

a) Yes ☐  
b) No ☐

49. If yes, what did you actually do? Explain.

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

50. If no, what is your reason?

a) Not interested ☐  
b) Have no exposure ☐  
c) Others (Specify) .....

51. Have you conducted some deliveries in the past 6 months?

a) Yes ☐

b) No ☐

52. (a) If yes to question 51, state when you clean the eyes of the newly born child?

a) Just after the head has been delivered ☐

b) Just after the baby has been delivered ☐

c) At least a day after a baby is born ☐

d) Any time you feel it is necessary to clean ☐

52. (b) If no to question 51, state why you have not conducted any delivery.

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.....

53. After cleaning the eye of the new born, tick the eye drop or ointment that you can  
Apply into the baby's eyes.

a) Chloramphenicol eye drops ☐

b) Povidone eye drops ☐

c) Tetracycline eye ointment ☐

d) Hydrocortisone eye drops ☐

e) Ketoconazole eye drops ☐

f) Others (specify) .....

***Thank You Very Much for Taking Your Time to Answer this Questionnaire  
May God Bless You!!***

## APPENDIX 2

### WORK SCHEDULE

ACTIVITY	TIME DATES	FRAME DURATION	RESPONSIBLE PERSON
Research Proposal development	5.05.08 – 30.6.08	8 Weeks	Principal Investigator
Finalize Research Proposal	1.07.08-31.07.08	4 Weeks	Principal Investigator
Clearance From Research Ethics	1.08.08-21.08.08	4 Weeks	Principal Investigator
Formulation of Data Collection Tool	1.08.08-21.08.08	3 Weeks	Principal Investigator
Pilot Study	1.08.08-21.08.08	3 Weeks	Principal Investigator
Data Collection Tool Amendments	1.08.08-21.08.08	3 Weeks	Principal Investigator
Data Collection	1.09.08-30.09.08	4 Weeks	Principal Investigator
Data Analysis	15.10.08- 15.11.08	4 Weeks	Principal Investigator
Report Writing	16.11.08- 16.12.08	4 Weeks	Principal Investigator
Finalize Report And Dissemination of Findings	17.12.08- 31.01.09	6 Weeks	Principal Investigator
Monitoring And Evaluation	05.05.08 – 31.01.09	41 Weeks (9 Months)	Principal Investigator

**APPENDIX 3: GANTT CHART 2008-2009**

<b>ACTIVITY</b>	<b>RESPONSIBLE PERSON</b>	<b>MAY 2008</b>	<b>JUN 2008</b>	<b>JUL 2008</b>	<b>AUG 2008</b>	<b>SEP 2008</b>	<b>OCT 2008</b>	<b>NOV 2008</b>	<b>DEC 2008</b>	<b>JAN 2009</b>
Research Proposal development	Principal Investigator									
Finalize Research Proposal	Principal Investigator									
Clearance From Research Ethics	Principal Investigator									
Formulation of Data Collection Tool	Principal Investigator									
Pilot Study	Principal Investigator									
Data Collection	Principal Investigator									
Data Analysis	Principal Investigator									
Report Writing	Principal Investigator									
Draft Report to PBN	Principal Investigator									
Finalizing Report And Dissemination of Findings	Principal Investigator									
Monitoring And Evaluation	Principal Investigator									



APPENDIX 4: BUDGET

ITEM	UNIT	UNIT COST	TOTAL COST
<b>STATIONARY</b>			
Reams of Paper	5	35,000	175,000
Pens (box)	1	20,000	20,000
Rubber	4	1,000	4,000
Note books(Each)	4	5,000	20,000
Tipex (Box)	3	10,000	30,000
Stapler	1	80,000	80,000
Perforator	1	150,000	150,000
Scientific calculator	1	150,000	150,000
Flip charts	3	50,000	150,000
Markers	12	5,000	60,000
Steeple(Box)	1	10,000	10,000
Box Files(Each)	2	30,000	60,000
Small Folders	10	2,000	20,000
Field Bag	1	250,000	250,000
Folder Clips	10	1,500	15,000
Paper Glue	1	15,000	15,000
Bostick	2	15,000	30,000
Disks(CD-ROM)	10	3,000	30,000
Memory Stick 2G	1	250,000	250,000
Diary	1	80,000	80,000
Manilla Paper	5	1,000	5,000
		<b>SUBTOTAL:</b>	<b>K1,454,000</b>
<b>SECRETARIAL SERVICES</b>			
Questionnaire Typing	10 pages	3,000	30,000
Check List Typing	10 pages	3,000	30,000
Research Proposal Typing and Binding	1	350,000	350,000
Research Report Writing	1 x 60 pages (60)	3,000	180,000
Questionnaire printing	10 x 50( 500)pages	3,000	1, 500,000
Check List Printing	10 x 50 (500) pages	3,000	1, 500,000
Binding of Research Reports	6 copies	50,000	300,000
	6 x 60 pages (360)	3,000	1, 080, 000
Research Report Photocopying			
		<b>SUBTOTAL:</b>	<b>K 4, 790, 000</b>
<b>PERSONNEL</b>			
Transport Allowance during Research Activities	20 days	30,000 x 2	1,200,000
Transport to and from Research Areas	2	150,000	300,000
Snacks for Respondents	65	5,000	325,000
<b>INFORMATION DISSEMINATION</b>			
Hall Hire for Dissemination	1	250,000	250,000
LCD Hire for Dissemination	1	150,000	150,000
Refreshments	20	5,000	100,000
		<b>SUBTOTAL</b>	<b>K 2, 325,000</b>
		<b>TOTAL</b>	<b>K 8, 569, 000</b>
		<b>CONTINGENCY 10%</b>	<b>K 856, 900</b>
<b>GRAND TOTAL:</b>		<b>K9, 425, 900. 00</b>	

## **APPENDIX 5**

### **BUDGET JUSTIFICATION**

#### **STATIONARY**

Stationery which includes typing, typing paper, pens, pencils, marker and tipex was needed by the investigator to be able to write down the information which was obtained during data collection, data analysis and report writing. Files, staples and a perforator were used to keep the work in order.

#### **PERSONNEL**

The investigator was entitled to lunch allowance for the days he was collecting data. Lockable bags were needed for keeping and carrying the questionnaires safely and to ensure confidentiality. Transport money was needed to enable the investigator to travel to and from the hospital or study site.

#### **TYPING SERVICES**

The secretarial services included typing, photocopying, recording and binding the final reports.



**THE UNIVERSITY OF ZAMBIA**  
**SCHOOL OF MEDICINE**  
**DEPARTMENT OF POST BASIC NURSING**

*Donnd Nam*

P. O Box 50110

**LUSAKA**

30<sup>th</sup> July, 2008.

The Executive Director,  
University Teaching Hospital  
**LUSAKA**

UFS: The Head of Department  
School of Medicine  
Department of Post Basic Nursing  
P. O Box 50110  
**LUSAKA**



Dear Sir,

**E: PERMISSION TO CONDUCT A PILOT STUDY**

I am a fourth (4<sup>th</sup>) year student pursuing a Bachelor of Science Degree in Nursing (BSc NRS) at the above mentioned institution. In partial fulfilment of the BSc NRS degree, I am required to carry out a research study.

I therefore, request for permission to carry out a pilot study at your respective institution before the main study which will be conducted in the month of September, 2008. The topic of my study is *"To determine Knowledge, Attitudes and Practices of Nurses towards Prevention of Childhood blindness"*.

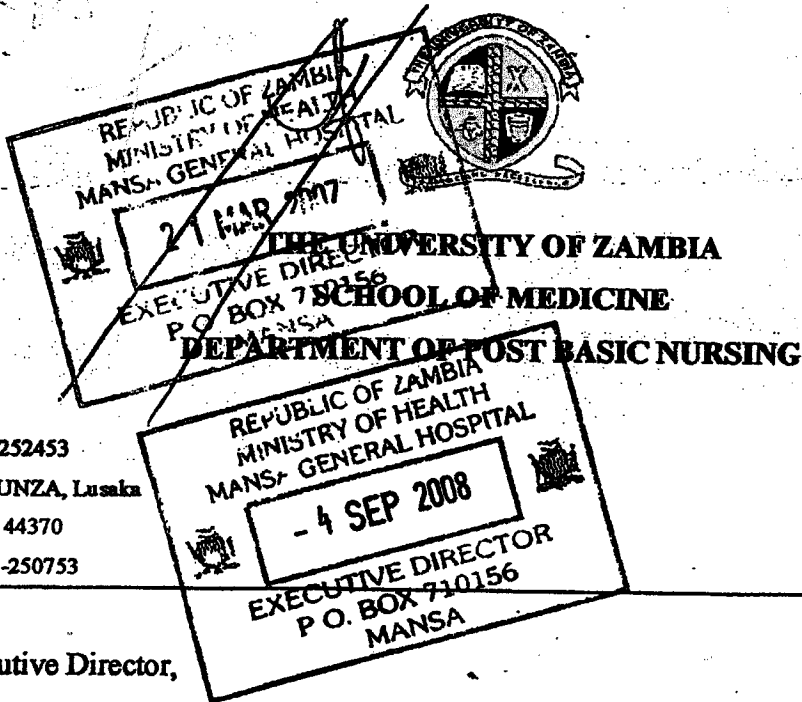
Your consideration of my request will be highly appreciated. Thanking you in advance.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'CHAPIMA FABIAN', written over a horizontal line.

CHAPIMA FABIAN

***PBN FOURTH YEAR STUDENT***



Telephone: 252453

Telegrams: UNZA, Lusaka

UNALUZA 44370

Fax: +260-1-250753

P. O Box 50110  
LUSAKA

30<sup>th</sup> July, 2008.

The Executive Director,  
Mansa General Hospital  
P.O Box 710392  
MANSA

UFS: The Head of Department  
School of Medicine  
Department of Post Basic Nursing  
P. O Box 50110  
LUSAKA

Dear Sir/Madam,

### RE: PERMISSION TO UNDERTAKE A RESEARCH STUDY

I am a fourth (4<sup>th</sup>) year student pursuing a Bachelor of Science Degree in Nursing (BSc NRS) at the above mentioned institution. In partial fulfilment of the BSc NRS degree, I am required to carry out a research study. The topic of study is *"To determine Knowledge, Attitudes and*

***Practices of Nurses towards Childhood blindness***". Nurses are the target population in this study.

I therefore, request for permission to carry out the research study from 1<sup>st</sup> September, 2008 to 30<sup>th</sup> September, 2008.

Thanking you in advance for your favourable consideration.

Yours faithfully,



**CHAPIMA FABIAN**

***PBN FOURTH YEAR STUDENT***

c.c. ***The Provincial Director of Health***