FACTORS CONTRIBUTING TO INCREASED PNEUMONIA CASES AMONG

CHILDREN UNDER FIVE YEARS AT KITAGATA HOSPITAL

PAEDIATRICS DEPARTMENT

A RESEARCH DISSERTATION SUBMITTED TO

UGANDA NURSES AND MIDWIVES EXAMINATIONS BOARD

IN PARTIALFULFILLMENTOF THE REQUIREMENTS

FORTHE AWARD OFA DIPLOMA IN NURSING

KATUREEBE SIMON

RESEARCH STUDENT

MAY, 2018

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Abstract

Efforts to end pneumonia worldwide have been there since way back in 1961 but are still futile. The continuing high rates of pneumonia cases among children under-fives leaves one wondering whether mothers or care givers of these children had knowledge on the factors contributing to the increased high rates of pneumonia in children under 5 in pediatric ward in Kitagata hospital.

It was a descriptive and cross sectional study design and a total of 57 respondents who were mothers and caregivers with children under 5 years admitted in paediatric ward at the time of the study were selected using simple random sampling to participate.

The findings revealed that among the 57 respondents interviewed, they faced various social economic factors like majority 30(52.6%) stayed in rural areas which was not surprising since more than half 36(63.2%) resided in temporary houses of which these factors were directly linked to pneumonia. Most 35(61.5%) had children who were not immunized against pneumonia however, those few 30(52.6%) whose children were immunized against pneumonia, had not covered all doses which directly links to the high pneumonia prevalence that leads to high rate of spread in the hospital.

They were also faced with health facility related factors such as most of the respondents studied 22(38.5%) moved a distance of about 2-3 kilometers from home to the health facility thus not seeking services from the hospital and the health seeking behavior of mothers also affected negatively in a way that most 25(43.9%) of the respondents interviewed sought for medical treatment after a week and 25(43.9%) delivered from home and so delayed medication and delivery from homes increases the child's chances of contacting pneumonia and this has increased high level of pneumonia. However positively, most of them 27(47.4%) wrapped their babies immediately.

In conclusion poor infrastructure in the place of residence, incomplete or no immunization against pneumonia, long distance to the health facility, not delivering from the health facility and delay to seek medical treatment directly led to increased pneumonia cases in children under 5 years. Therefore comprehensive interventions geared to increasing awareness on recognition of the disease, improving on the health seeking behaviors and encouraging proper housing to be adopted in the community in order to reverse the trend.

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DEDICATION

I dedicate this piece of work to my beloved parents Mr.Rumanzi Azariah and Mrs.Kemijumbi Medius, my sisters :Oliver, Florine, Naume and Brothers: Innoncent, Jim, Peter and Capson and friends: Barbra, Dison, Amoit Doreen, Nathan, Medard, Nelson and Collins plus all my classmates. I thank you for your endless support to my academic career.

ACKNOWLEDGEMENT

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LIST OF ACRONYMS/ABBREVIATIONS

CSO   :   Civil Society Organisation

FNC   :   Food and Nutrition Council

FY   :   Financial Year

ICCM   :   Integrated community case management

LG   :   Local Government

MOH   :   Ministry of health

OPD   :   Outpatient Department

PACE   :   Programme for Accessible health Communication and Education

RSV   :   Respiratory Syncytial Virus

UNICEF   :   Unites Nations International Childrens Emergency Fund.

VHT   :   Village health team

WHO   :   World Health Organisation

SPSS   :   Statistical package for social sciences

EPI   :   Extreme physical information

EMTCT   :   Elimination of mother to child transmission

DEFINITION OF TERMS

Caregiver: This is either mother or any person who gives attention to the under fives

through feeding, bathing, clothing.

Infant: A very young child or baby

Neonates: A newborn child less than four weeks old (28days)

Pneumonia: This is lung inflammation caused by bacterial or viral infection, in which the

air sacs fill with pus and may become solid. Inflammation may affect both

lungs (double pneumonia) or only one (single pneumonia).

Under fives: These are children who are between 0-59 months old.

CHAPTER ONE

1.0 INTRODUCTION

Pneumonia is lung inflammation caused by bacteria or viral infection, in which the air sacs fill with pus and may become solid. Inflammation may affect both lungs (double pneumonia) or only one (single pneumonia).The main known causative pathogens reported are Streptococcus pneumoniae, Haemophilus influenzae type B, and respiratory syncytial virus (RSV). However, their distribution varies by season and location. Cough and fast and or difficult breathing that is to say tachyponea or dyspnea due to a problem in the chest are clinically recognized as signs of childhood pneumonia (Dickens Onyango, 2012).

Pneumonia deaths could be averted if caretakers recognized the symptoms and danger signs in children with pneumonia, sought treatment promptly and offered appropriate home care to the children including adherence to prescription and proper feeding

1.2 BACKGROUND

Pneumonia remains the leading infectious cause of deaths among children under five years of age. It accounted for 15% of childhood deaths and killed over 920,000 children in 2015 where the mostly affected were children below two years. In 2015, pneumonia killed an estimated 922,000 children under-five globally; most of these deaths were in sub-Saharan Africa (UNICEF, 2016).

Substantial evidence revealed that the leading risk factors contributing to pneumonia incidence are lack of exclusive breastfeeding, under nutrition, indoor air pollution, low birth weight, crowding and lack of measles immunization. Pneumonia is responsible for about 19% of all deaths in children aged less than 5 years, of which more than 70% take place in sub-Saharan Africa and south-east Asia (Igor Rudan, 2008).

Pneumonia cases are highest in sub-Saharan Africa which comprises of developing countries like Uganda characterised with poor housing, improper diagnosis of pneumonia done clinics, poor health seeking behaviour among caregivers ,increased incidences of uncontrolled pollution and so forth. Those in sub-Saharan Africa still have the highest risk of mortality from infections pneumonia is the most prevalent (WHO, 2014)**.**

Pneumonia remains the second leading cause of deaths in Uganda among the under fives. This follows the malaria that consumes the highest portion of the national budget. Pneumonia is known to cause a lot of deaths and millions of bed admissions in both public and private health facilities. It should be noted that disease causes almost 12 million hospitalisations for severe disease cases and 3 million for very mild infections .it's estimated that more than 80% of deaths occurred outside a hospital; 99% of deaths occurred in Ugandan health facilities (Doreen Tuhebwe, 2014).

1.3 Problem Statement

Efforts to end pneumonia worldwide have been there since way back in 1961 but efforts are still futile**.** A study carried out in Uganda showed that 53.7% of children admitted to Mulago hospital with respiratory tract infections had pneumonia(Nantanda, R., 2013).

In order to abate this problem, **t**he government of Uganda through ministry of health with support from partners like PACE are implementing Integrated community case management(ICCM) strategy by Village health team(VHT) members where pneumonia is among the three diseases/conditions targeted including malaria and diarrhoea to be managed at community level to enhance access by the caregivers but this has also hit a snag resulting from inadequate training offered to the VHTs, less supplies and also less trust developed among the VHTs by the community members which still leaves the challenge of pneumonia not well handled (Doreen, E. T.,2014)

However, the HMIS report for Kitagata hospital for first quarter 2017/18 FY showed that pneumonia contributed 36% of the total number of under-fives handled both in outpatient department (OPD) and inpatient admissions proving a big challenge for the limited resources of the hospital and making it worthy a researchable problem to seek remedies.

1.4 Purpose of the study

Reduction of childhood mortality due to acute respiratory infections is a worldwide health priority.(UNICEF/WHO,2006) More than 2 million children die annually of acute respiratory infections, most often pneumonia Dio, A. (2014). In sub-Saharan Africa, the estimated proportion of death in children aged under 5 years attributed to pneumonia is 17–26%.3 Childhood pneumonia remains a leading killer of children in developing countries where it accounts for up to 21% of deaths in children under the age of five years (Källander, K., 2005)

Risk factors for fatal pneumonia include poor socioeconomic status, incomplete immunization schemes, malnutrition, late care seeking and inadequate treatment Savigny, D.(2004).Prompt recognition and treatment with an effective drug is crucial, as the case-fatality rate in untreated children is high (sometimes exceeding 20%)and death can occur after 3 days of illness Reyes, H.(2008). In areas with endemic malaria, symptom overlap led to common mistreatment of pneumonia with antimalarial rather than appropriate antibiotics, probably increasing incidence of severe pneumonia. Yet cheap and effective tools exist for pneumonia prevention and care. Generally, the recommendations focus on improvement in vaccine coverage for measles, Haemophilusinfluenzae type B and pertussis, community education, improved nutrition, training of health providers in diagnostic and treatment algorithms, use of effective antibiotics, and timely referral of severely ill cases. However, in 2004, only 29% of Ugandan children with symptoms suggestive of

pneumonia were reported to have used first-line or second-line antibiotics during illness (Victora, C. G., 2008).

1.5 Broad objective

A study to assess the contributing factors for increased cases of Pneumonia among children under 5 years in paediatric ward so as to reduce on the disease burden in Kitagata hospital.

1.5.1 Specific objectives

- To assess the socio-economic status of caregivers or mothers of children under 5 years with pneumonia cases in paediatric ward at Kitagata hospital.

- To assess the health facility related factors that contribute to the increased pneumonia cases among children under 5 years in paediatric ward at Kitagata hospital..

- To determine the health seeking behaviours among mothers and caregivers of children under 5 years in paediatric ward at Kitagata hospital.

1.6 Research Questions

- What is the socio economic status of caregivers or mothers of children under 5 years in paediatric ward in Kitagata hospital?

- What health facility related factors that predispose children under 5 years in paediatric ward in Kitagata hospital to pneumonia?

- How long do mothers or caregivers with children under 5 years in paediatric ward at Kitagata hospital take before coming for treatment of pneumonia?

1.7 Justification for   the study

 Despite improved access to healthcare, every year millions of children die before reaching their 5th birthday and in addition to this, the number of pneumonia incidences in the Kitagata

hospital is still overwhelming. The study seeks assess the factors contributing to increasing pneumonia cases among children under five years at Kitagata hospital.

This study served the purpose of identifying the factors that contributed pneumonia among children under 5 years. This greatly assisted the administration of Kitagata Hospital to come up with more appropriate sensitization and health education of mothers and care takers on how to prevent pneumonia among children under 5 years.

The findings might assist the Ministry of Health and Health Planners and Policy makers by identifying the potential areas which still required policy improvements as well as the development of national policy on child health services including the prevention of pneumonia.

The study also provided a valuable point of reference for researchers carrying out similar studies in future and also contributed to the available literature on the factors that contributed to pneumonia among children under 5 years.

The study helped the researcher in accomplishing the course as it was for a partial requirement to be fulfilled for the award of a Diploma in Nursing.

CHAPTER TWO

LITERATURE REVIEW

2.1 The socio-economic status of caregivers or mothers of children under five years with pneumonia cases.

2.1.1 Living conditions

A study done in Mexico showed that economic status is always linked to the contraction of pneumonia among the children under 5 years and availability of resources determines the housing conditions, type of clothes to be worn by the children under-fives (Manabe, T., Anjarath Lorena, H.I., and Maria, E.(2012). Pneumonia cases were highly reported in areas that had poor living conditions like rural and slum areas (Manabe, T., Anjarath Lorena, H.I., and Maria, E., 2012).

Similarly in Brazil the risk of developing pneumonia among infants is inversely associated with the head of household income and with the woman educational level. Areas with deprived socioeconomic conditions tend to register higher incidence of pneumonia (Thorn, L.K., Minamisava, R., and Simonne, S. N., 2011)

Sub Saharan Africa has suffered recurrent wars that keep the parents and caregivers on a run and most of these infants are produced under refugee camps and in the bush which is very common among the war tone areas including South Sudan, Somalia and so forth therefore these living conditions predispose the infants to pneumonia thus affecting their life (Nirmolia, N., Tulika, M., and Manjit, B., 2017)

2.1.2 Cultural Practices

The cultural practices among most common tribes which are so diverse tend to control the health seeking behaviours among people more so those who stay in the local areas for instance some cultural believes allow the neonates to be easily accessed by outsiders and also some cultures go as far as not covering these children such conditions predispose them to pneumonia (Wonodi, C. B., and Maria, D. K., 2012)

2.1.3 Economic level

A study done by Igor Rudan, C. B.(2008), in Sub Saharan Africa and South east Asia on epidemiology and aetiology of childhood pneumonia revealed that the leading risk factors contributing to pneumonia incidence are lack of exclusive breastfeeding, under nutrition due to inability to have funds to provide proper diet, indoor air pollution due to overcrowding in homes, and lack of measles immunization due to inadequate funds to access health facilities and pneumonia is responsible for about 19% of all deaths in children aged less than 5 years.

2.2 The health facility related factors that contribute to the increased pneumonia cases among children under five years.

2.2.1 Immunisation

Risk factors for fatal pneumonia include incomplete immunization schemes that is to say not completing the required doses, children who do not complete their immunization schedule are at risk of acquiring pneumonia and late care seeking and inadequate treatment has been linked to the spread of pneumonia therefore such conditions are always observed among most common tribes which are so diverse and tend not allow their children to be immunized, some care givers are not educative about the importance of immunizing their children and this hinders them from taking their children to be immunized (Wonodi, C. B., & Maria, D.K., 2012).

2.2.2 Distance from home to the health facility.

A study done by Rahman, M., (2009) in Bangladesh on factors affecting acceptance of complete immunization coverage of children under 5 years in rural Bangladesh found out that the mothers whose distance from home to the health facility was more than 6 kilometers were more likely not to complete their child's immunization.

2.2.3 Health Infrastructure

The health infrastructure has a direct link to the pneumonia prevalence in most countries. The infrastructure ranges from overcrowding in health centres, inadequate hygienic facilities like access to safe water and improper disposal of medical wastes, long hospital stay because of other conditions like high spread diarrhoea which leads to hospital acquired pneumonia and inadequate equipment to help in diagnosing pneumonia(Sanjay Sethi, M.D, march 2017).

2.2.4 Stock out of Drugs

The challenge of stock outs of supplies in many health facilities has predisposed many to increased pneumonia effects which tend to affect the immunisation schedule of these children. Studies have shown that when the children have uncompleted dose on immunisation are 2.3times more likely to develop pneumonia (WHO, 2014).

2.3 The health seeking behaviours among mothers or caregivers with children under 5 years at paediatric ward for treatment and control of pneumonia

2.3.1 Delay in seeking health services

In Mexico Peoples' health seeking behaviour was directly associated to the contraction of pneumonia in that if a caregiver takes long to seek medical attention for the neonate it risks the child's chances of contracting the pneumonia (Manabe, T., Anjarath Lorena, H. I., and Maria, E., 2012).

It was furthermore found that the health seeking behaviours among mothers in rural areas is always very low that tend to predispose the neonates and mothers to complicated stages of pneumonia and this is partly due to less information and traditional beliefs that most local persons are faced with pneumonia (Dickens Onyango, G.K.,2012)

2.3.2 Maternity

Seeking of healthcare services starts at a point of attending of antenatal services among pregnant mothers, in developing countries were access to proper healthcare is still a challenge many mothers tend to deliver in their homes and under assistance of traditional birth attendants which directly predisposes these infants to cold conditions that leads to pneumonia among the children because they do not cover their babies immediately after birth and taking them for immunisation (Nimolia, N., Tulika, M., and Manjit, B., 2017).

2.3.3 Immediate care of the neonate.

According to Diana, R., *et al*. (2013), in a research made in East Africa, findings showed that medical practices helped to safeguard women and babies from complications following delivery, to find out if the reproductive organs of the mother had gone back to the original state and provided important opportunities to assess the infant's development, ensuring warmth by covering the child immediately after birth to avoid hypothermia and neonatal pneumonia after 24 hours and covering the head with a hat and promoting kangaroo method.

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

This chapter includes the mode of carrying out the study, eligible respondents and how data was managed to aid in getting action

3.2 Study design

The study was a cross sectional descriptive study employing both qualitative and quantitative descriptive data collection methods.

3.3 Study setting and rationale

The study was conducted at the Paediatric Ward, Kitagata Hospital which was found in Sheema district western Uganda, bordered by Buhweju district in north, Mbarara district in north, Ntungamo district in South, Mitoma district in south west Bushenyi district in west. It was 233 km from Kampala and it had an estimated population of 389,650 people (UBOS, 2012). The main tribes were Banyankole and Bakiga. The main food was matooke, and the main economic activity done was farming. The hospital was the biggest health care provider in the district and it offered many health care services including immunization, child health services, obstetrics and emergency care, HIV/AIDS management services, general patient management, laboratory services, mental health services, nutrition services, family planning services, antenatal and post natal services, EMTCT program as well as RCT services among many others. The study setting was selected because it was well known to the researcher and the required number of respondents were easy to get while also because there was a high number of pneumonia cases that were registered every month.

3.3 Study Population

The study included caretakers of children under 5 years that were admitted in the Paediatric Ward, Kitagata Hospital at the time of data collection and a total of 30 caretakers representatives were involved in the study.

3.4 Study population

The study population was care givers with children suffering from pneumonia, nurses and in charges in the pediatric ward in Kitagata hospital.

3.4.1 Sample Size Determination

The sample size was calculated using the Kish and Leslie formula (1965) for single proportion.

$$n = \frac{z^2pq}{d^2} \quad = \quad n = \frac{z^2\,[p\,(1\text{-}p)]}{d^2}$$

Where n- the sample size

d^2- precision of the study. A precision of 5% will be used which is the standard error

Z - Where Z is the value for standard normal deviation corresponding 95% confidence interval on a normal distribution curve which is 1.96

P - 53.7% is the prevalence of pneumonia among children under 5 years according to a study carried out in Mulago hospital in 2013 (Rebecca Nantanda , 2013)

q = (1-p)

q= 1-0.537 = 0.463

Sample size, $n = \dfrac{(1.96)^2 \text{ x } 0.537\text{x } 0.463}{0.1\text{x } 0.1}$

$n = \dfrac{0.56702016}{0.01}$

n= 57 respondents

3.4.2 Sampling procedure

Simple random sampling of care givers at pediatrics department in Kitagata hospital to identify respondents. Here a list of all caregivers who were with children with pneumonia at the hospital was made and then coded with numbers from 01 to 57 their names put on piece of papers then randomly select the number of respondents.

3.4.3 Inclusion criteria and exclusion criteria.

All women or caregivers with children under five years of age diagnosed with pneumonia were eligible for the study. Those caregivers with children above five years of age were excluded

3.5 Study variables

Dependent variables

- Prevalence of pneumonia cases in Kitagata hospital

 Independent variables

- Age, level of education, income level, of care givers at Kitagata hospital

- Knowledge of care givers towards the presentation and management of pneumonia

- Health seeking behaviors of caregivers towards management of pneumonia

- Health care factors that affect the care givers timely seeking of medication

3.6 Research instruments.

Structured questionnaires with open and closed ended questions and interview schedules were used in data collection.

3.7 Data Collection procedures

Structured questionnaires and key informant interviews will be conducted.

Qualitative data was obtained using face to face interviews of the researcher with respondents using semi structured questionnaires as the data collection tools and key informants using key informant guides.

3.7.1 Data Handling

Data management included data editing before leaving the area of study to ensure that there were no mistakes or areas left blank, and if any was found, they were corrected before leaving the area of study. Quantitative data was edited, coded and entered into the computer using Epi-data 3.02 and analysed using SPSS version 19 and Microsoft excel 2010.

3.7.2 Data Analysis

The collected data was first analysed manually by the use of papers and pens and tallying, after which the researcher present them in tables, graphs and pie charts generated by Microsoft Excel.

3.8 Ethical considerations

Permission was sought from the university and hospital to collect data required for the study.

A written consent form explaining the rationale for the study, benefits, and rights of respondents and confidentiality to protect the respondents was presented to the respondents in English or and local language where applicable.

3.9 Limitations of the study

The researcher encountered time constraints in the course of the study, balancing the research study and other demanding course works..

The researcher also faced difficulty in obtaining information from some unco-operative respondents for whatever reason.

3.10 Dissemination of results

The findings of the study were compiled into a dissertation report that will be submitted in partial fulfilment for the award of Diploma in nursing by UNMEB .Four copies of the research report will be disseminated the library of KIU as follows; one copy of the report will be submitted to UNMEB, KIU, the administration of Kitagata Hospital, supervisor and researcher. Efforts will be made to present the findings of the study in any health and educational conferences geared towards reducing the incidence of pneumonia among children bellow 5 years.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction:

This chapter deals with the analysis and presentation of data collected inform of   graphs, pie charts and frequency tables on factors contributing to anaemia among children under five in paediatric ward at Kitagata hospital. Out of 57 respondents interviewed, 57 returned completely filled questionnaires giving a response rate of 100%.

4.1 SECTION A: Demographic characteristics of respondents.

Table 1 showing the demographic characteristics of respondents (n=57).

Demographic characteristics		Frequency(n=57)	Percentage (%)
Age	18-24	3	5.3
	25-34	13	22.8
	35-44	30	52.6
	45-50	10	17.5
	55 and above	1	1.8
Educational level	Primary	28	49.1
	Secondary	22	38.6
	Tertiary	7	12.3
Occupation	Working class	13	22.8
	Bussiness	14	24.6
	Peasants	30	52.6
Annual earnings	Less than 500,000shs	17	29.8
	500,000-2000000shs	30	52.6
	Above 20000000shs	10	17.6
Sex	Male	23	40.4
	Female	34	59.6
Parishes	Kyarushakara	15	26.3
	Muhito north	15	26.3
	Bwooma	14	24.6
	Kyeibanga	13	22.8
Village	Mashenga 1	15	26.3
	Bwooma 3	14	24.6
	Mashenga 2	15	26.3
	Katooma	13	22.8
Tribe	Bakiga	12	21.1
	Banyankole	28	49.1
	Bahima	8	14.0
	Batooro	9	15.8
Religion	Protestants	16	28
	Moslems	14	24.6
	Catholics	12	21.1
	Born agains	15	26.3

The findings of the study show that majority of the respondents 30(52.6%) studied were in age bracket 35-44 compared to 1(1.8%) who were within the age range of 50 years and above, almost half of the respondents 28(49.1%) interviewed had attained up to primary level of education while 7(12.3%) had studied up to tertiary level, most of the respondents 30(52.6%) interviewed were peasants whereas 13(22.8%) were of the working class, more than half of respondents 30(52.6%) studied reported to earn between 500,000shs to 2000000shs annually

compared to 10(17.6%) who earned above 2000000shs annually, majority of the respondents interviewed 34(59.6%) were females while 23(40.4%) were males, more than a quatre of the respondents studied 15(26.3%) belonged to Kyarushakara and Muhito north parishes while 13(22.8%) belonged to Kyeibanga parish, majority of the respondents interviewed 15(26.3%) lived in Mashenga 2 and 1 village where as 13(22.8%) lived in Katooma village, the highest number of respondents 28(49.1%) studied were banyankole compared to 8(15.8%) who were Bahima and majority of the respondents 16(28.0%) studied were protestants whereas 12(21.1%) were Catholics.

4.2 SECTION B: Socio-economic factors that contribute to increased pneumonia cases among children under 5 years.
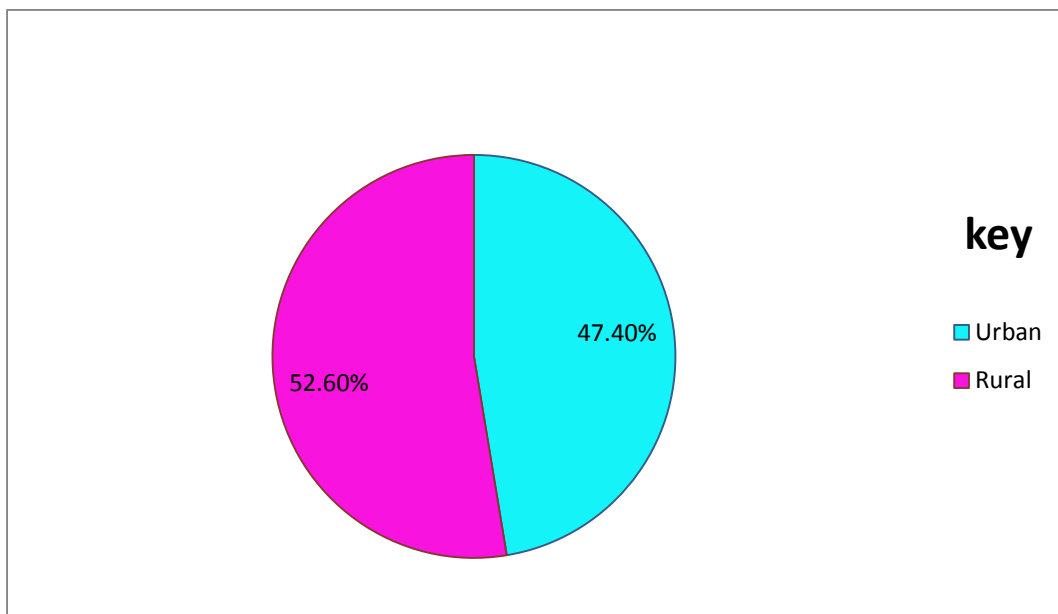
Figure 1 showing the areas where the respondents lived (n=57).

Majority 30(52.6%) of the respondents stayed lived in rural areas compared to 27(47.4%) who stayed in urban areas.

Table 2 showing the type of houses of the respondents (n=57).

Types of houses	Frequency (F)	Percentage (%)
Permanent	21	36.8
Temporary	36	63.2
Total	**57**	**100%**

The findings of the table 2 above show that more than half 36(63.2%) of the respondents resided in temporary houses while 21(36.8%) stay in permanent houses.

4.3 SECTION C: Health facility related factors that contribute to increased pneumonia cases among children under 5 years.
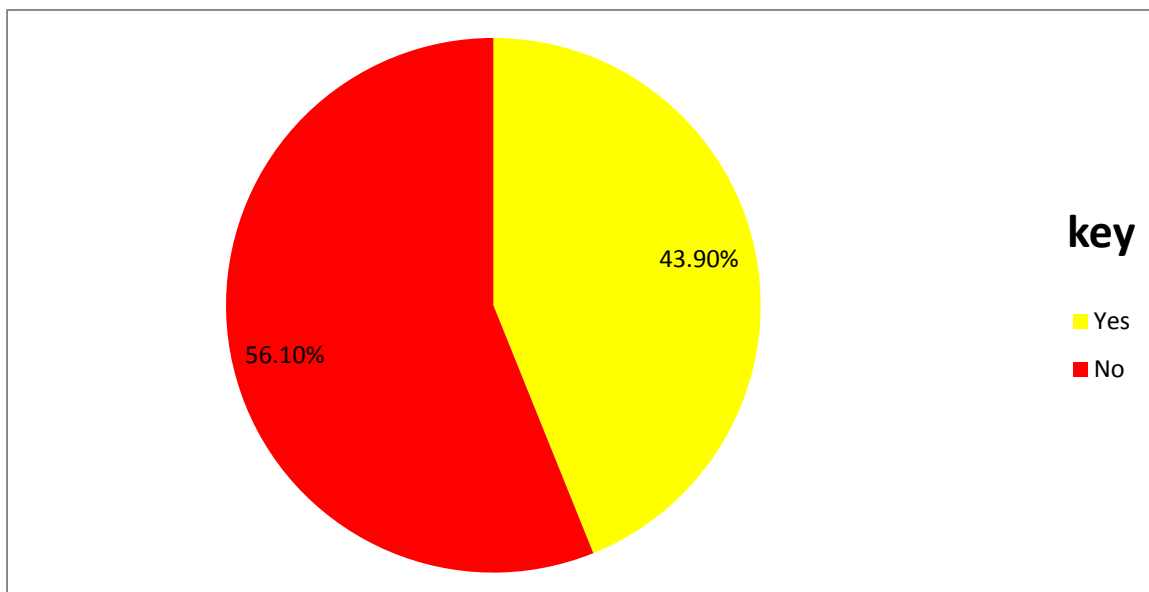
Figure 2 showing whether the respondents children were immunised immunized n=57

According to the research findings, majority 32(56.1%) of the respondents studied had children who were not immunized compared to 25(43.9%) whose children were immunized.

Table 3 showing if the child is immunized against pneumonia and whether all doses were covered (n=57).

Responses	Frequency (n=57)	Percentage (%)
If the child is immunised against pneumonia		
Yes	22	38.5
No	35	61.5
If all doses were covered		
Yes	27	47.4
No	30	52.6

According to the research findings, majority 35(61.5%) of the respondents studied reported to have children who were not immunized against pneumonia whereas 22(38.5%) had children that were immunized against pneumonia. The findings of the study also show that more than half 30(52.6%) of the respondents' children had not covered all the doses while 27(47.4%) had children who had covered all the doses.
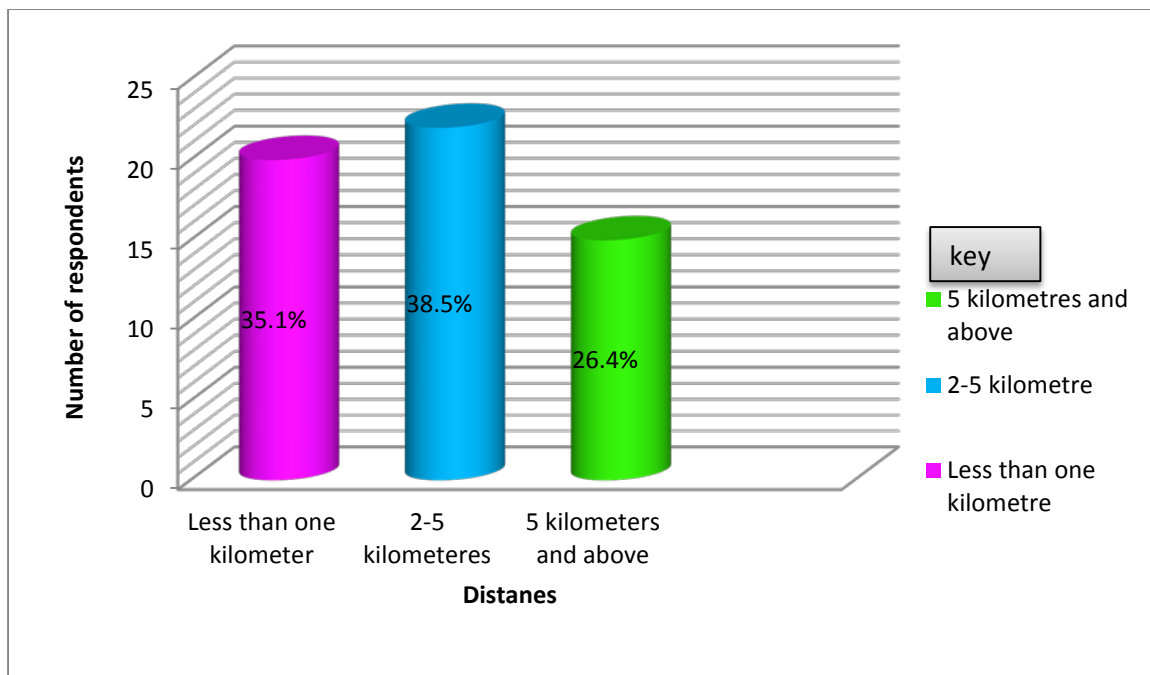
Figure 3 showing the distance from home to the health facility (n=57).

Results in figure 3 above showed that majority 22(38.5%) of the respondents interviewed moved a distance of 2-5kilometres from home to the health facility compared to 15(26.4%) who moved a distance of 5kilometres and above from home to the health facility.

4.4 SECTION D: Health seeking behaviours among mothers or caregivers of children under 5 years for treatment and control of pneumonia.

Table 4 showing the time spent before thinking of bringing the child to the health facility for treatment (n=57).

Period spent before bringing child for treatment.	Frequency (F)	Percentage (%)
After 2 days	10	17.5
After 4 days	10	17.5
After 6 days	12	21.1
After one week	25	43.9
Total	**57**	**100**

According to the research finding, majority 25(43.9%) of the respondents approached thought of bringing their children for medication after a week compared to 10(17.5%) who brought their children for treatment after two and four days respectively.
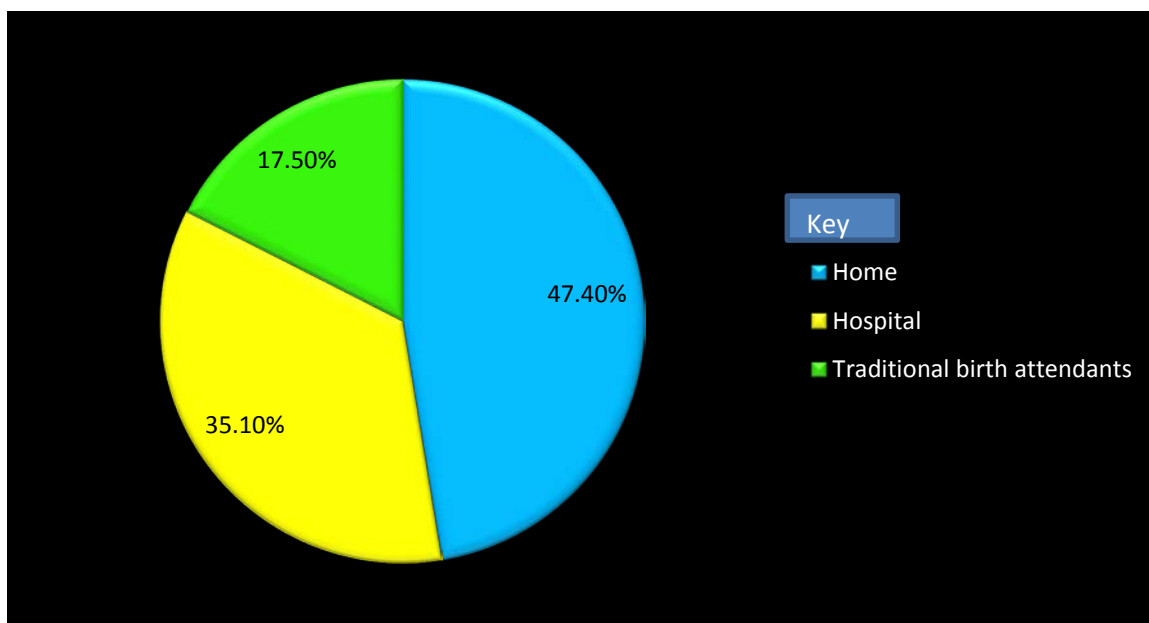
Figure 4 showing the place of delivery of the respondents (n=57).

Basing on the above results, figure 4 showed that majority 27(47.4%) of the respondents studied delivered from homes compared 10(17.5%) respondents who delivered from traditional birth attendants.

Table 5 showing the care that was given to the child immediately after birth (n=57).

Care given to the child after birth	Frequency(n)	Percentage (%)
My baby was wrapped immediately	27	47.4
My baby was breast fed immediately	10	17.5
My baby was vaccinated	11	19.3
None of the above	9	15.8
Total	**57**	**100%**

According to the study findings majority 27(47.4%) of the respondents approached reported their babies to have been wrapped immediately while 9(15.5%) of the respondents' babies were not given any immediate care after birth.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS AND SUMMARY

5.0 Introduction

This chapter presents the discussion of findings and summary of the findings of the study which was aimed at assessing factors contributing to increased pneumonia cases among children less than five years.

5.1 Discussion of findings

This section presents the discussion of findings of the study which was aimed at assessing factors contributing to increased pneumonia cases among children under five years. It was based on the following study objectives:-

- To assess the socio-economic status of caregivers with children under five years with pneumonia cases.

- To assess the health facility related factors that contribute to increased pneumonia cases among children under five years.

- To determine the health seeking behaviours among mothers or caregivers with children under five years for treatment and control of pneumonia.

Majority 30(52.6%) of the respondents studied lived in rural areas which is consistent with the study done by Manabe, T., Anjarath Lorena, H. I., and Maria, E. (2012), in Mexico which revealed that pneumonia cases were highly reported in areas that had poor living conditions like rural and slum areas. This could be because the people in rural areas live in poor conditions which are make pneumonia to be on a rise.

The findings of the study show that more than half 36(63.2%) of the respondents resided in temporary houses and this was in line with what Ghimire, M., & Bhattacharya, S. (2012), who

conducted a study in South east Asia described as poor infrastructure at household directly links to the high pneumonia attack in such areas. This could be due to many respondents staying in temporary houses under poor living conditions that allowed spread of the causative microorganism from one person to another which led to the increased rate of pneumonia cases in Kitagata hospital.

Furthermore, the research findings showed that majority 32(56.1%) of the respondents studied had children who were not immunized and it was in agreement with what Nirmolia, N., Tulika, M., & Manjit, B. (2017), said in a study they conducted in Dibrugarh town that lack of complete immunization directly links to the high pneumonia prevalence. This could be due to drug stock out and ignorance about the essence of immunization.

According to the research findings, majority 35(61.5%) of the respondents studied reported to have children who were not immunized against pneumonia and it was similar with what Nirmolia, N., Tulika, M., & Manjit, B. (2017), said in a study they conducted in Dibrugarh town that lack of complete immunization directly links to the high pneumonia prevalence. This could be due to drug stock out and ignorance about the essence of immunization.

The findings of the study also show that more than half 30(52.6%) of the respondents' children had not covered all the doses and this was in line with the findings of Wonodi, C. B., and Maria, D.K. (2012), which revealed that the risk factors for fatal pneumonia include incomplete immunization schemes that is to say not completing the required doses, children who do not complete their immunization schedule are at risk of acquiring pneumonia. This could be due to ignorance on completion of immunization.

Results showed that minority 15(26.4%) of the respondents interviewed moved a distance of more than 5 kilometres from home to the health facility which is in line with a study done by Rahman,A. (2009),in Bangladesh which stated that the mothers whose distance from home to

the health facility was more than 6 kilometers were more likely not to complete their child's immunization. This could be due to lack of funds to transport them to the health facility and it could also be due to poor road network.

More so the research finding show that majority 25(43.9%) of the respondents approached thought of bringing their children for medication after a week and this was in line with what Manabe, T., Anjarath Lorena, H. I., & Maria, E. (2012), said that if a caregiver takes long to seek medication attention for the neonate and it increases the child's chances of contacting pneumonia. This could be because most caregivers first try to treat the condition with local herbs and they also first seek treatment from village health teams who do not know how to diagnose such illnesses.

Basing on the results, majority 27(47.4%) of the respondents studied delivered from homes and this is co relates with the study done by Nirmolia, N., Tulika, M., and Manjit, B. (2017), which revealed that seeking of healthcare services starts at a point of attending of antenatal services among pregnant mothers, in developing countries were access to proper healthcare is still a challenge many mothers tend to deliver in their homes and under assistance of traditional birth attendants which directly predisposes these infants to cold conditions that leads to pneumonia among the children because they do not cover their babies immediately after birth and taking them for immunisation. This could be because they do not attend antenatal care due to presence of traditional birth attendants who provide delivery services to these mothers or care givers.

According to the study findings majority 27(47.4%) of the respondents approached reported their babies to have been wrapped immediately and this is in line with Diana, R., *et al*. (2013), whose findings showed that medical practices helped to safeguard women and babies from complications following delivery, to find out if the reproductive organs of the mother had gone back to the original state and provided important opportunities to assess the infant's

development, ensuring warmth by covering the child immediately after birth to avoid hypothermia and neonatal pneumonia after 24 hours and covering the head with a hat and promoting kangaroo method. This could be because the mothers could have had knowledge on immediate warmth given to the neonate immediately after birth.

5.2 Conclusion

Basing on the above findings, the study concludes that it was found that poor infrastructure at household directly links to the high pneumonia attack in such areas. This arises when people live under poor conditions that allow the spread of pneumonia from one respondent to another in the hospital.

However, lack of complete immunization directly links to the high pneumonia prevalence that leads to high rate of spread in the hospital.

Furthermore, delayed medication and delivery from homes increases the child's chances of contacting pneumonia. This increases the children's chances of getting infectious diseases that may threaten their life span or reduce on their stay on the earth.

5.3 Recommendations

The study recommends the following:-

Immunisation of children should be taken serious among caregivers in order to improve of the conditions of living of children and to become stronger in fighting against infectious diseases that may come along their ways.

Mothers should be delivering from hospitals in order to secure the life of the new born babies so that they can have a proper growth that may allow them to have good stay and attain their needs in mature ages.

Proper housing should be adopted in the community so that the children live in a good condition of life that may also help them fight against pneumonia attack for a better healthy.

Caregivers should stay in towns where good health facilities are received first before reaching rural areas in order to be updated whatever new health facilities come along like drugs in the hospitals to be secure and free from getting infectious diseases like pneumonia.

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APPENDIX: 1 CONSENT FORM

I…..………………………………………………………………………………

Being mother consent to participate as requested in the study I have read the information provided. Details of the procedure and any risks have been explained to my satisfaction

I understand that:

I may directly benefit from taking part in this research. I am free to with draw from the study at any time and am free to decline to answer particular questions. Whether i participate or not or withdraw after participating, will have no effect on any treatment or service that is being provided to me. I may withdraw at any time from the interview or research without disadvantage.

Participant's signature……………………………………Date…………………………

I certify that I have explained the study to the volunteer and consider that he/she understands what is involved and freely consent to participate.

Researcher's Name: Katureebe Simon

Signature……………………………….   Date………………………….

APPENDEX II: QUESTIONIERE

This questionnaire aims at determining the factors contributing to increased pneumonia cases among children under 5 years at Kitagata hospital.

Instructions

1. Please answer all questions

2. Tick the appropriate answer and fill in the space provided.

3. Do not write your name on the questionnaire

   Serial number   --------------------------

SECTION A: Demographic characteristics of the respondents.

   i)Age:...................(years)

   ii) Educational level: primary ☐ secondary (o level) ☐ tertiary ☐

   iii)Occupation:...................................

   iv)How much do you earn annually?

Less than 500,000/= ☐

between 500,0000/=- 2,000,000/= ☐

2,000,000/= and above ☐

   iv) Location: Parish:...............................village:...

   v)Sex: male   female ☐

   vi) Tribe:....................................vii) Religion:..

SECTION B: Socio economic factors contributing to increased pneumonia cases among children under 5 years .

i)Where do you stay? Urban .... Rural area.......................

ii)What is the type of your living house?

Temporary ....Permanent.............................

iii)Briefly talk about your cultural beliefs with neonate

....

....

SECTION C: Health facility related factors contributing to increased pneumonia cases among children under 5 years.

i)   Is your child immunised?   Yes [   ]   NO [   ]

ii)   If yes can I look at immunisation card?(Interviewer reviews the card)

iii)   Is the child immunisation against pneumonia?   YES [   ]   NO [   ]

If yes, are all doses covered?   YES [   ] NO [   ]

iv)   How far is your home from the health facility?

Less than 1 KM [   ] 2-5KM [   ]   beyond 5KM [   ]

SECTION D: Health seeking behaviours of mothers or caregivers of children with pneumonia cases.

i)   When did your child fall sick?..................................

ii)   How long did you take to bring your child for medication?

………………………………………………….(days)

iii)   Where did you deliver from?

Home [   ]   hospital [   ]   TBA [   ]

iv)   What care was given to your child immediately after delivery?

....

....

....

Thank you so much for your attention

APPENDIX III: RECOMMENDATION LETTER

KIU KAMPALA INTERNATIONAL
UNIVERSITY
WESTERN CAMPUS
EXPLORING THE HEIGHTS

School of Nursing Sciences,
P.O.BOX 71 Bushenyi, Ishaka
Tel: +256 (0) 701 975572
E-mail: akabanyoro@gmail.com
Website:http://www.kiu.ac.ug

Office of the Dean - School of Nursing Sciences

Date: 01/Feb. /2018

To:

....

....

For: Medical Superintendant
KITAGATA HOSPITAL
P.O. BOX 160, KABWOHE- SHEEMA
Date:...08/02/2018.....

Received on 8/02/2018.

Dear Sir/Madam,

RE: KATUREEBE SIMON

The above mentioned is a student of Kampala International University –
School of Nursing Sciences undertaking Diploma in Nursing Science –
Extension and he is in his final academic year.

He is recommended to carry out his data collection within two weeks
from the time of approval as a partial requirement for the award of the
Diploma in Nursing Science.

His topic is: **FACTORS CONTRIBUTING TO INCREASED PNEUMONIA
CASES AMONG CHILDREN UNDER FIVE YEARS AT KITAGATA
HOSPITAL PAEDIATRIC DEPARTMENT.**

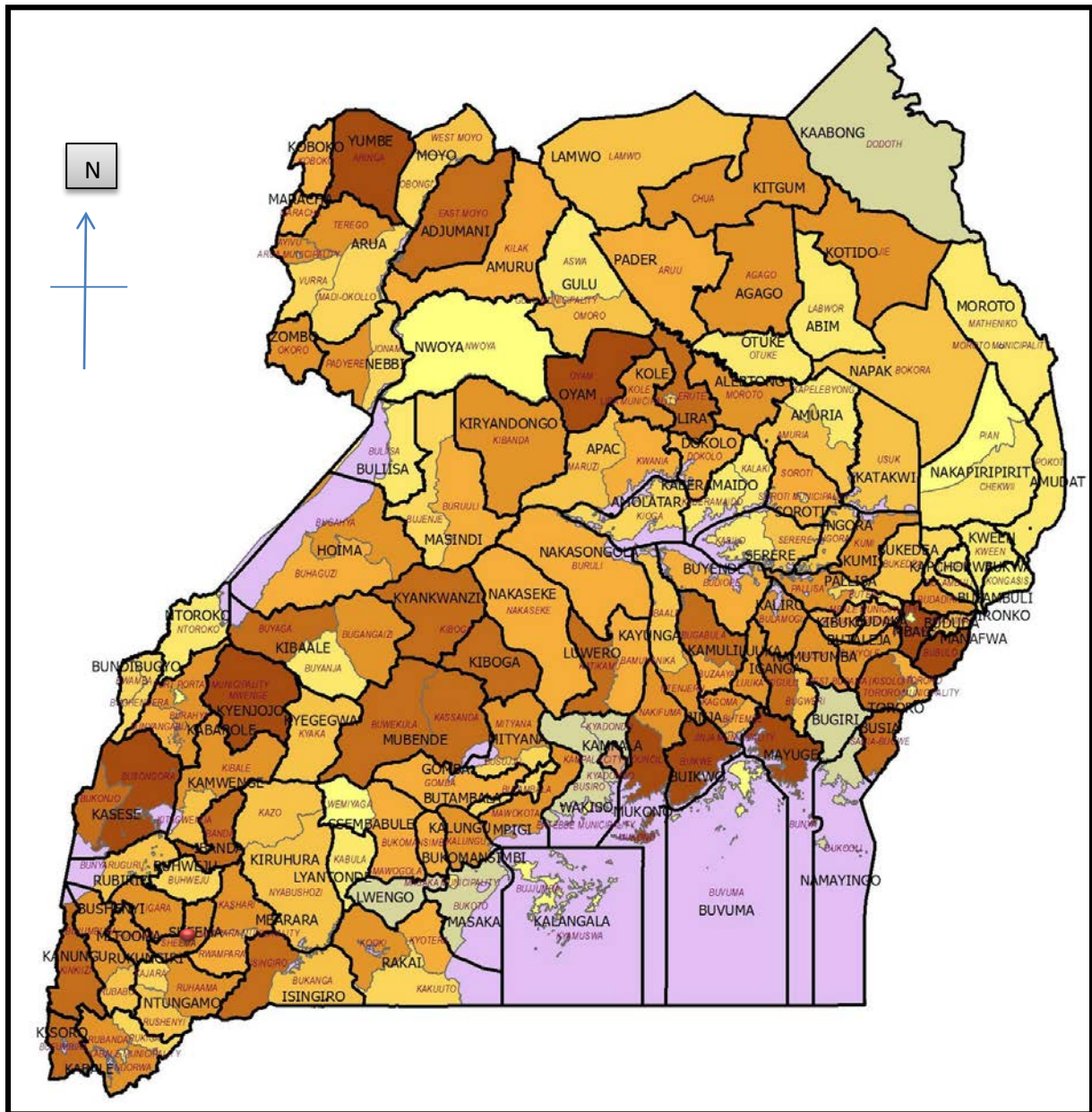Any assistance rendered to him will be highly appreciated.

Thank you in advance for the positive response.

Baliku Yoseb
RESEARCH COORDINATOR
Tel: +256782-835901/756-013899
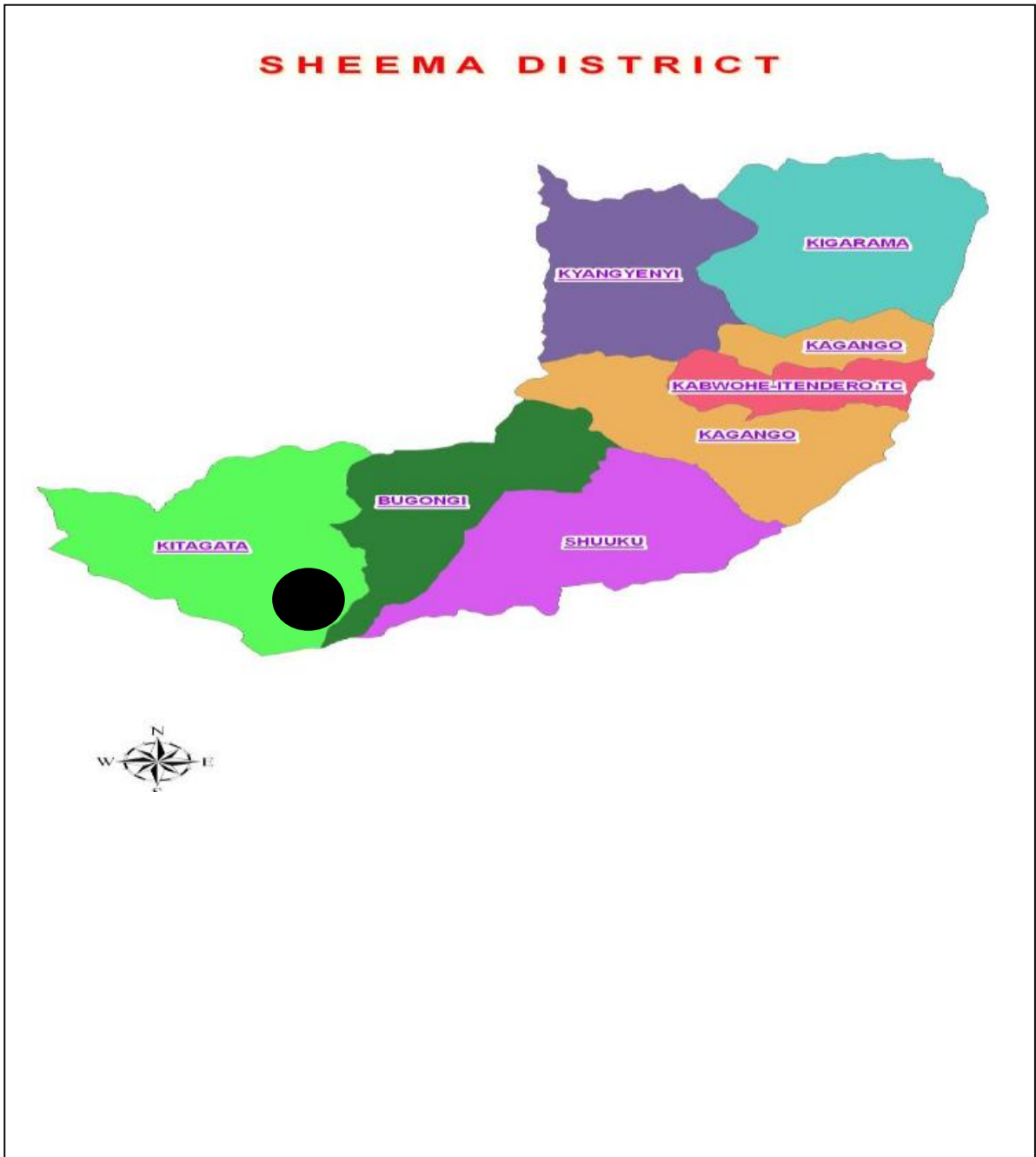Email: balyos766@gmail.com

"Exploring the Heights"

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APPENDIX IV: A MAP OF UGANDA SHOWING LOCATION OF SHEEMA DISTRICT WHERE KITAGATA HOSPITAL IS LOCATED.

KEY   🔴 | LOCATION OF SHEEMA DISTRICT |

APPENDIX V: MAP OF SHEEMA DISTRICT WHERE KITAGATA HOSPITAL IS

LOCATED

KEY: ⬤ Kitagata Hospital