

**KNOWLEDGE AND ATTITUDES CONCERNING HEPATITIS B INFECTION AND
PREVENTION AMONG RESIDENTS OF KALIRO TOWN COUNCIL**

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DECLARATION

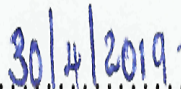
I, *Walusimbi Doreen*, do hereby declare that this dissertation is the product of my own efforts and to the best of my knowledge, has never been presented to any institution for any award or qualification whatsoever. Wherever the works of other people have been included, due acknowledgement to this has been made in accordance with the appropriate referencing and citations. The findings and the analysis that will result from this research project will be my original information.



WALUSIMBI DOREEN

(Fifth year medical student)

DATE



APPROVAL

This is to certify that this research proposal has been prepared under my supervision and has never been presented anywhere for any other purpose and is now ready for submission to the Faculty of Clinical Medicine and Dentistry of Kampala International University for further consideration.

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DEDICATION

I dedicate this work to my father, Bishop Walusimbi Edward and my beloved mother, Mrs. Walusimbi Irene. I really appreciate the support you have given me throughout this academic struggle, may the almighty God bless you so much.

LIST OF ABBREVIATIONS AND ACRONYMS

CDC	:	Centre's for Disease Control and prevention
EMI	:	Emergency Management of Injuries
HAV	:	Hepatitis A Virus
HB	:	Hepatitis B
HBIg	:	Hepatitis B Immunoglobulin
HBV	:	Hepatitis B Virus
HCC	:	Hepatocellular Carcinoma
HCV	:	Hepatitis C Virus
HCWs	:	Health Care Workers
HDV	:	Hepatitis D Virus
HEV	:	Hepatitis E Virus
HIV	:	Human Immuno-Deficiency Virus
IREC	:	Institutional Research & Ethics Committee
KAP	:	Knowledge Attitude & Practice
KIU	:	Kampala International University
KIU-TH	:	Kampala International University Teaching Hospital
MDG	:	Millennium Development Goal
MTCT	:	Mother to Child Transmission
PEP	:	Post-exposure Prophylaxis
SDG	:	Sustainable Development Goal
TB	:	Tuberculosis
WHO	:	World Health Organization

OPERATIONAL DEFINITIONS

All definitions adopted from Merriam-Webster online dictionary, accessed on 25th January 2019.

Vaccination: treatment with a vaccine to produce immunity against a disease; inoculation.

Vaccine: a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.

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ABSTRACT

Introduction: Hepatitis B infection is a serious blood-borne disease caused by the hepatitis B virus (HBV) which attacks the liver, and is the leading cause of liver cancer and cirrhosis of the liver. HBV can be transmitted through exposure to infected blood and human secretions through needle stick / sharps injuries and splashes.

The aim of the study: To investigate the knowledge and attitudes towards hepatitis B virus test and vaccination among the peoples of Kaliro.

Methods: A cross-sectional quantitative survey on 240 people was conducted in eight zones of Kaliro town council, using an anonymous self-administered questionnaire with questions on knowledge and attitudes.

Results: Of 240 questionnaires distributed, 225 people returned completed forms (response rate: 93.8% [225/240]). The majority were females (86.8% [136/240]) and were below 31 years of age (30.1% [93/225]). The majority (87.6% [156/225]) had good knowledge of the causes and prevention of HBV. The unvaccinated respondents had fairly low positive attitudes.

Conclusion and Recommendations: The response rate of the people was similar to the other study findings. There was a significant difference in the response rate among the eight zones of the town council. Industrial area zone and Nakiyanja zone had very good response rates of 96.7% (29/30) and 95% (38/40), while Bukilindi zone, Budini zone and Kaliro zone had fair response rates of 90% (18/20), 92% (23/25) and 92% (23/25) respectively.

There is one notable trend throughout this analysis of group differences, is that people enrolled at zones; Industrial area and Nakiyanja posted significantly higher scores than their colleagues at other zones across all but one index, indicating that these people are more knowledgeable, have better attitudes, and exhibit better behaviors than many of their peers. However, the lower scores in the other zones could have been limited by the small number of participants especially in Bukilindi zone.

CHAPTER ONE

1.0 INTRODUCTION

Hepatitis B infection is a serious blood-borne disease, caused by the hepatitis B virus (HBV) which attacks the liver, and although in acute cases rarely results in liver failure and death, the main public health problem is that this can lead to lifelong chronic HBV infection, which may be followed by cirrhosis and/or liver cancer (Adebamowo *et al.*, 1998).

Chronically infected HBV carriers are able to transmit HBV through contact with their body fluids, which includes occupational exposure to their blood, secretions and sexual intercourse. People at risk include health care workers (HCWs) in contact with blood and human secretions, haemodialysis staff, oncology and chemotherapy nurses, all personnel at risk of needle stick/sharps injuries, which includes those working in operating rooms and clinical laboratories, respiratory therapists, surgeons, doctors, dentists, as well as medical, dental and nursing students (Smelzer *et al* 2003).

There is a highly efficacious vaccine that protects against HBV infection, and it is recommended by the South African Department of Health (DOH) that all HCWs should be vaccinated against HBV before being exposed to patients (DOH ., 2005). The infection is one of the preventable diseases that have a vaccine against it. Despite this, developing countries, especially in the sub Saharan Africa suffer the most from the disease (Augarde.,1993).

This could be attributed to a number of factors ranging from the lack of knowledge, bad attitude or other vaccine related reasons that would make people not want to be vaccinated.

Data on the knowledge and attitude in Kaliro Town Council is not adequate and for this reason the study aims to assess the knowledge and attitudes of Kaliro Town Council residents as pertains to Hepatitis B and its prevention.

1.1 BACKGROUND

Hepatitis, is a general term used to refer to inflammation of the liver. It may be as a result of various causes, both infectious (i.e., viral, bacterial, fungal, and parasitic organisms) and non-infectious (e.g., alcohol, drugs, autoimmune diseases, and metabolic diseases) (Samji, 2017).

Viral hepatitis, accounts for more than 50% of cases of acute hepatitis, primarily in the emergency department setting. Hepatitis viruses A, B, C and D (HAV, HBV, HCV, HDV which requires coexisting HBV infection), and E (HEV) cause the majority of clinical cases of viral hepatitis (Samji *et al.*, 2017).

The most common viral causes of hepatitis include hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV), which can all result in acute disease with symptoms of nausea, abdominal pain, fatigue, malaise, and jaundice. Acute HBV and HCV infections can lead to chronic infection. Patients who are chronically infected may develop cirrhosis and hepatocellular carcinoma (HCC) as complications. Furthermore, chronic hepatitis carriers remain infectious and may transmit the disease for many years (Dan Longo *et al.*, 2013).

Hepatitis B infection is a worldwide healthcare problem, especially in developing countries. The common routes of transmission of the virus are body fluids such as blood, semen, and vaginal secretions (Pyrsoopoulos *et al.*, 2017). Hepatitis B (HB) is a serious viral infection affecting the liver and is caused by hepatitis B virus (HBV). It is infectious and the most common cause of chronic hepatitis, liver cirrhosis and hepato-cellular carcinoma (Lee Goldman *et al.*, 2016). Hepatitis B is a very important public health problem affecting almost 10% of the world population (World Health Organization, 2017). According to the 2017 WHO report, viral hepatitis caused 1.34 million deaths in 2015, a number comparable to deaths caused by tuberculosis and higher than those caused by HIV. However, the number of deaths due to viral hepatitis is increasing over time, while mortality caused by tuberculosis and HIV is declining.

Most viral hepatitis deaths in 2015 were due to chronic liver disease (720 000 deaths due to cirrhosis) and primary liver cancer (470 000 deaths due to hepatocellular carcinoma). Globally, in 2015, an estimated 257 million people were living with chronic HBV infection, and 71 million people with chronic HCV infection. The epidemic caused by HBV affects mostly the WHO African Region and the Western Pacific Region (World Health Organization *et al.*, 2017).

HBV has been found in virtually all body secretions and excretions. However, only blood, body fluids containing visible blood, semen and vaginal secretions represent a risk of transmission (Hauser *et al.*, 2011).

The developing countries especially those in sub-Saharan Africa contributed to the largest proportion of HBV morbidity and mortality in 2015 (World Health Organization *et al.*, 2017). In spite of major progresses made during the Millennium Development Goals (MDGs) era, major challenges remain in terms of battling hepatitis. Challenges that saw the formulation of Sustainable Development Goal 3.3 (SDG3.3) that among other things is aimed at combating hepatitis and ensure its reduction by the year 2030. The incidence rates for HIV, TB, malaria and hepatitis are SDG indicators even though for viral hepatitis, no estimates of incidence are available yet (Organization *et al.*, 2016).

HBV can be effectively prevented by vaccination. A safe and effective vaccine has been available since the 1980s. The complete vaccine series induces protective antibody levels in more than 95% of infants, children and young adults. After age 40, protection following the primary vaccination series drops below 90%. Protection lasts at least 20 years and should be lifelong. (WHO *et al.*, 2017).

Hepatitis B vaccination has been recommended for both children and adults and updates to the immunization schedules were latest done in March 2017. This is alongside the targeted immunization programme for those individuals who are at increased risk of HBV because of their occupation, lifestyle or other factors. these include healthcare workers (HCWs), prison and security personnel, contacts of cases, people who inject drugs, people with certain medical conditions, clients in learning disability centres, people with multiple sexual partners, men who have sex with men, prisoners, and travelers to and immigrants from HBV endemic areas. (CDC, 2017).

Global coverage of hepatitis B vaccination was 82% in 2014 but country data availability on hepatitis B incidence is poor and still in preparation phase by the (WHO 2016).

Uganda is among the countries which has had outbreaks of hepatitis B over the years with the Northern regions of Karamoja and some regions of Eastern Uganda hitting the headlines for most outbreaks and mortality (Staples *et al.*, 2010). This led the government to start screening people for HBV in 12 districts believed to have the highest infection rates in Northern and Eastern Uganda in 2015 (Aida *et al.*, 2016).

There were recent outbreaks of Hepatitis B in Hoima District in September 2013, and February 2017 plus one in Kaliro district in Busoga region, Eastern Uganda. 6 health workers were tested and confirmed to be having the infection in the February 2017 outbreak (Yiga *et al.*, 2016). No KAP study on Hepatitis B and its prevention has been conducted in the region especially in Kaliro district. It is from this knowledge that the researcher wishes to conduct this research about knowledge and attitudes of the health workers of Kaliro district about hepatitis B, its transmission and prevention.

1.2 PROBLEM STATEMENT

Viral hepatitis is a public health problem worldwide. HBV is among the common causes of acute and chronic hepatitis. People with chronic hepatitis can easily get into liver cirrhosis, hepatocellular carcinoma and death. Furthermore, chronic hepatitis B virus carriers are a continuous source of transmission and infection to others. In addition, people with HBV are at risk of contracting HDV(Landon *et al.*, 2013).

It is estimated that there are more than 250 million carriers of the hepatitis B virus in the world, with over 500,000 deaths annually from hepatitis B-related liver disease (Lok *et al.*, 2017). Most of this burden is in the WHO African Regions and Asia Pacific Regions (World Health Organization, 2017).

Uganda has suffered from hepatitis B outbreaks every time and again, with the Northern and Eastern region (Kaliro town council) suffered recently from hepatitis B outbreaks with several case fatalities being reported (Nabatenzi *et al.*, 2017). This is happening in the backdrop of SDG3.3, amongst whose target is to markedly reduce the incidence of hepatitis B worldwide by the year 2030 (Organization, 2016).

Despite global estimates of improved 3-dose vaccination incidence among individuals (82% coverage), country hepatitis B incidence statistics are poor and yet to be prepared by the WHO (Organization, 2016). Any study that will contribute towards this much needed statistics, particularly in problem areas, is more than needed.

1.3 STUDY OBJECTIVES

1.3.1 GENERAL OBJECTIVE

To assess the knowledge and attitude about hepatitis B infection and prevention among residents of Kaliro Town council, aged 16-45years between July 2018 and March 2019.

1.3.2 SPECIFIC OBJECTIVES

- To assess knowledge about hepatitis B among residents aged 16-45 years in Kaliro Town council, between July 2018 and March 2019.
- To determine the attitudes towards hepatitis B infection among residents aged 16-45 years in Kaliro Town council, between July 2018 and March 2019.
- To assess the degree of uptake of hepatitis B vaccination among residents aged 16-45years of Kaliro Town council, between July 2018 and March 2019.

1.4 RESEARCH QUESTIONS

- What is the knowledge of residents aged 16-45 years of Kaliro town Council concerning hepatitis B?
- What are the attitudes of Kaliro town council residents aged 16-45years concerning hepatitis B?
- What proportion of Kaliro Town Council Residents aged 16-45years is fully vaccinated against hepatitis B?

1.5 STUDY SCOPE

1.5.1 GEOGRAPHICAL SCOPE

The study was conducted in Kaliro Town Council, Kaliro district, Eastern Region in Uganda. It is the main administrative, and commercial center of Kaliro District and the site of the district headquarters. It is approximately 40 kilometres (25 mi) north of Iganga. This is approximately 153 kilometres (95 mi), by road, northeast of Kampala, Uganda's capital city. The coordinates of the town are 0°53'42.0"N, 33°30'18.0"E (Latitude: 0.8950; Longitude: 33.5050).

In 2002, the national population census estimated the town's population at 39,900. In 2010, the Uganda Bureau of Statistics (UBOS) estimated the population at 13,300. In 2011, UBOS estimated the population at 13,700. In 2014, the national census put the population at 16,796. It is led by an elected mayor and elected town council. As of 2017, the mayor is Sam Gamutambuli.

1.5.2 CONTENT SCOPE

The study was about knowledge and attitudes concerning hepatitis B infection, and prevention in a community setting.

1.5.3 TIME SCOPE

The actual study was conducted from July 2018 to March 2019.

1.6 SIGNIFICANCE OF THE STUDY

The researcher strongly feels that this study was justified due to the following reasons; Hepatitis B is a global public health concern; it is an important contributor to morbidity and mortality particularly in developing countries; it is preventable but a highly contagious disease; data on incidence is poor-data that is an important SDG indicator; recurrent outbreaks in Uganda with recent outbreaks in parts of Eastern region (Busoga and Kaliro Town Council). The findings from this study would therefore be useful at the policy level to complement knowledge, attitude and practices about this important public health issue. The study was crucial because it investigated

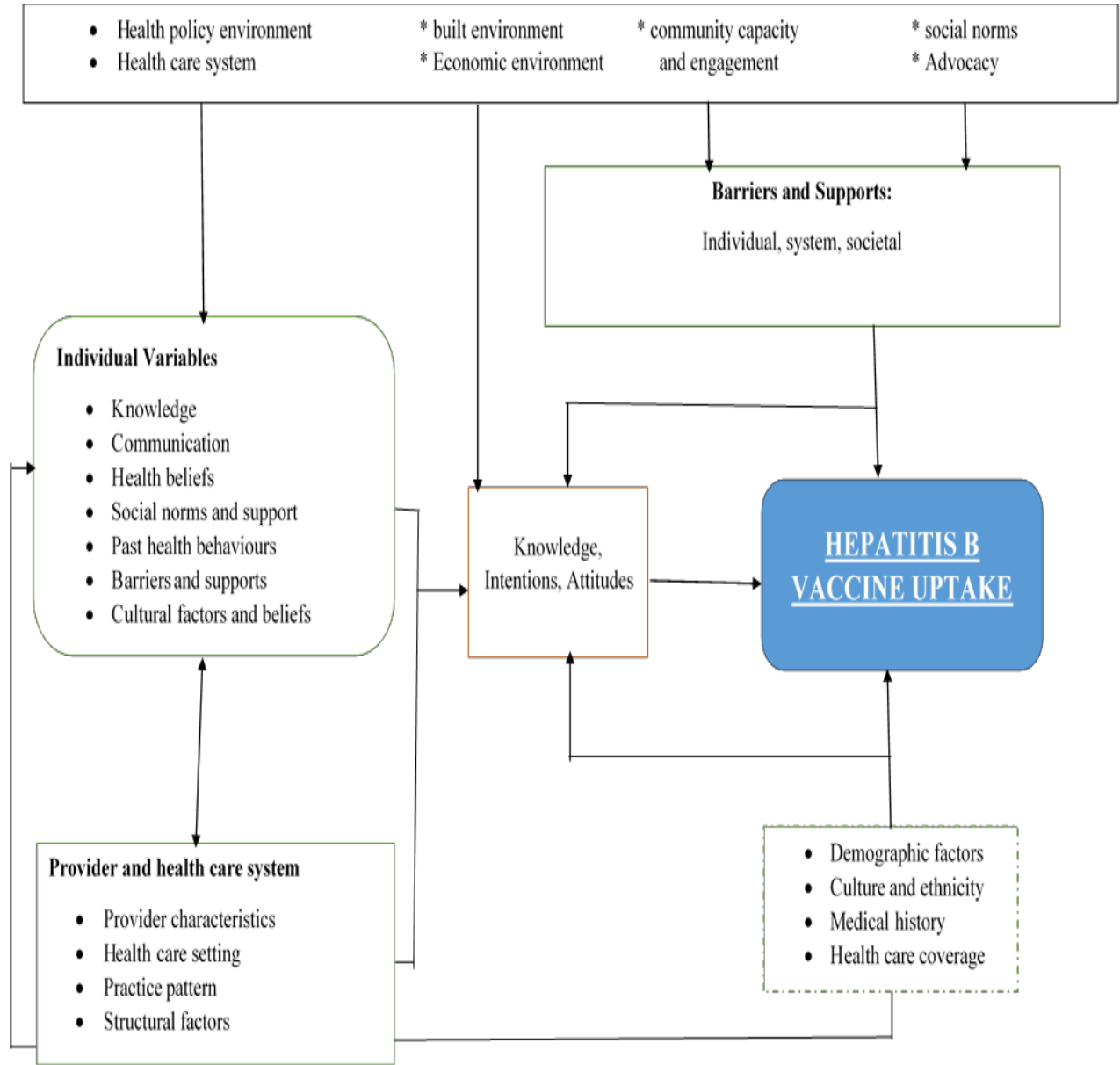
into the health of individuals. The knowledge gained from this study was used to both health care providers who treat the residents and the residents themselves. Identification of knowledge deficits paves the way for the development of educational programs targeted to health professionals and the different individuals at risk. This helped in reducing the high incidence of hepatitis B in the country. Many Studies have been conducted in Uganda to reduce Hepatitis B but with very little change in the incidence of hepatitis B, hence this study was designed to avail information that could help to reduce the prevalence of Hepatitis B among our residents in Kaliro Town Council and Uganda as a whole.

1.7 CONCEPTUAL FRAMEWORK

Factors determining hepatitis B vaccine uptake range from policies down to individual factors. Health policies from the ministry and other institutions influenced vaccine uptake. Societal factors, personal beliefs and knowledge base also influenced vaccine uptake. All these, together with vaccine factors themselves such as number of doses required, whether it is free or it is paid for and how much it costs also came into play and affected uptake. The health system and service providers, in their own way determined the level of vaccine uptake. Demographic factors, culture and ethnicity, medical history and health care coverage confounded the study.

All these factors determined whether people take up vaccination and determined the level of coverage, independent or modifiable variables whereas vaccine uptake was the dependent variable. The conceptual framework showed the boundary that the study was covered and the relationship which has been proven after going through all research steps. The relationship was proposed between categories of independent variables and dependent variable.

Figure 1: Conceptual framework on determinants of hepatitis B vaccine uptake; adopted and modified from Bastani R. et. Al, 2014



CHAPTER TWO

2.0. LITERATURE REVIEW

2.1. KNOWLEDGE & AWARENESS ON HEPATITIS B

In a cross sectional survey in Quetta Pakistan, findings showed that there was a low level of knowledge towards HB among the study population. A small percentage of respondents actually knew about transmission of HB. Only 28.2% of the participant believed that HB can cause liver cancer, which is a major sign of concern. The primary source of information was through family, friends and neighbors (ul Haq *et al.*, 2012).

A study in Puchong, Malaysia showed a difference in knowledge between its useful and older population. The older population had a better knowledge concerning hepatitis B compared to the younger population. It went further to establish that there was a significant correlation between education status and knowledge on hepatitis B. it went further to point out that the public also had a very poor knowledge and awareness on the vaccination status. Majority of them have never heard of Hepatitis B vaccination and they were not aware regarding the number of shots given for this vaccination regardless of age and education qualification (Pathmanathan *et al.*, 2014).

A study conducted among university students in Putra, Malaysia in 2016 indicate that the levels of knowledge and attitude towards hepatitis B and C were low among respondents but majority of them exhibited safe practices (Ahmad *et al.*, 2016).

Pre-interventional results in a population of Saudi soldiers showed that their knowledge concerning Hepatitis B was very low. Common methods of HBV transmission e.g. blood transfusion, sexual intercourse, and childbirth acknowledged by the study population before educational intervention were limited (58%, 40%, and 30%, respectively) and were comparable to those reported by Saudi dental patients (50-52%, 32-38%, and 33-41%, respectively) (Al-Thaqafy *et al.*, 2012).

A study was conducted on KAP of hepatitis B comparing rural and urban barbers in Islamabad. The results showed that, knowledge about hepatitis B & C was good in urban areas (92%) as compared to those working in the rural areas (68%) (Bin *et al.*, 2015).

In Guangdong Province of China, a study conducted among pregnant women in 2016 indicated a low level of knowledge among pregnant women concerning hepatitis B. 53.3% of the respondents

did not know that HBV can be transmitted through unprotected sexual inter- course and nearly 20% did not know that HBV can be transmitted from mother to infant (Han *et al.*, 2017).

Nunana Addo in, in her study involving nursing mothers in ho Municipality in Ghana published that the knowledge level of nursing mothers in the Ho municipality was low. Although most of them knew infection with Hepatitis B could cause death and that there was vaccination against it, their knowledge of the causes, modes of transmission and symptoms was low (Addo *et al.*, 2015). A study among pregnant women in Kintampo Municipality in Ghana in 2016 showed that there was a low level of knowledge concerning hepatitis B infection in this population. Forty-one percent of the 504 women were aware of hepatitis B viral infection, 33.5% of the women were able to correctly mention the transmission routes of Hepatitis B. The radio was the most (42%) mentioned source of information on HBV and the least source of information were places of worship (2.7%) (Abdulai *et al.*, 2016).

In a study conducted amongst pregnant women in Mbagathi Hospital in Kenya, HBV awareness among the study participants was 12.2% (Ngaira *et al.*, 2016).

2.2. ATTITUDES TOWARDS HEPATITIS B AND ITS PREVENTION.

In Guangdong Province China, the results were 83% and 85% of mothers interviewed were willing to be screened for HBV and let their baby receive HBV vaccine and HBIG, respectively. However, only 16.5% of respondents agreed that they would be willing to take drugs that are known not to harm the fetus to prevent MTCT of HBV (Han *et al.*, 2017).

Abdulrahman Ahmad, in his study in Putra Malaysia found out that, 54.8 % of the respondents had a positive attitude towards hepatitis B and C and 77.6 % had safer practices towards hepatitis B and C. Positive correlations were found between knowledge of hepatitis B and knowledge of hepatitis C; knowledge hepatitis B and attitude; knowledge hepatitis C and attitude; knowledge hepatitis B and practice; knowledge hepatitis C and practice; and attitude and practice regarding hepatitis B and C (Ahmad *et al.*, 2016).

Nunana Addo in her study among nursing women in Ghana in 2015 concluded that the attitudes and practices of nursing mothers were found to be poor, thus they did not make conscious efforts to prevent Hepatitis B infection to their children. They had a low perception of the severity of Hepatitis B and their children's susceptibility to it. Although most of them knew that vaccination was required to prevent infection, they did not think it was very important(Addo *et al.*, 2015).

CHAPTER THREE

3.0 . METHODOLOGY

3.1 STUDY DESIGN AND SETTING

A descriptive cross sectional study that utilized both qualitative and quantitative components were applied.

3.2. STUDY AREA

3.3. STUDY POPULATION

Residents of Kaliro town Council between 16-45years.

3.3.1. INCLUSION CRITERIA

Any individual between 16-45years, who consented to the study was included.

3.3.2. EXCLUSION CRITERIA

Any individual who refused to consent.

Any individual who was not in the age bracket of 16-45 years.

3.4. SAMPLE SIZE DETERMINATION

As per the 2014 National Census, the population of Kaliro Town council was estimated at 16,796. From this, the sample was determined directly by reading from Krejcie & Morgan table of 1970. (Appendix five). From the table, the sample size was **377** taken at the population size of 20,000.

3.5. SAMPLING TECHNIQUE

A random sampling technique was employed in this study.

3.6. DATA COLLECTION METHOD

Data was collected by the use of a researcher-administered questionnaire with both structured, multiple open and close-ended questions were useful. The principal researcher recruited two research assistants to assist in data collection and translation of the questions to the locals since it was in English.

3.7. DATA COLLECTION TOOLS

A self-administered questionnaire that would have been specifically tailored and structured used for the study.

3.8. DATA COLLECTION PROCEDURE

After the respondents had been selected, the researcher and the assistants asked those questions on their demographics, knowledge and attitudes as pertains hepatitis B.

3.9. QUALITY CONTROL

The researcher ensured quality control through induction and training of research assistants. The questionnaire was pre-tested before conducting the primary study and where modifications were warranted.

3.10. DATA ANALYSIS

Each questionnaire was checked for completeness, missed values and unlikely responses and then manually cleaned up on such indications. Data was exported to SPSS version 17 for analysis. Using double entry, the data was cross checked for consistency and accuracy. Responses and observations gave points and were tallied and then recorded to obtain means and presented in graphs, charts and tables.

3.11. ETHICAL CONSIDERATIONS

The clearance was obtained from Kampala International University-Western Campus faculty of Clinical medicine & Dentistry. Regional administration and community leaders were consulted, informed consent from the respondents were sought both verbally and written. Participants were assured of confidentiality and use of the information obtained only for the purpose of the research. Participation was fully out of the respondents' own choice with the right to pull out at any time, whenever they no longer felt comfortable to continue. They did not incur any benefits or losses from their participation. The researcher did not have any conflicts of interest.

CHAPTER FOUR

4.0 DATA ANALYSIS AND RESULTS

4.1 RESPONSE RATE

A total of 377 questionnaires were handed out: 38 at Bukilindi zone; 52 at buyunga zone; 42 at budini zone; 47 at industrial area; 57 at Nakiyanjja zone; 47 at Kalitunsi zone; 52 at Valley hill zone and 42 at kaliro zone. A total of 225 questionnaires were returned: 18 from bukilindi zone; 33 from buyunga zone; 23 from Budini zone; 29 from industrial area; 38 from nakiyanjja zone; 28 from kalitunsi zone; 33 from valley hill zone and 23 from kaliro zone. This gives an overall response rate of 59.7% (225/377), with the response rates from each zone.

4.2 PRELIMINARY ANALYSIS

Before addressing the primary objectives of this study, several preliminary analyses were conducted, which included proportions of missing values and items distributed. This analysis was undertaken by means of response frequencies to investigate the extent of data anomalies and the probable ambiguity that these might introduce into the inferences that can be drawn from the study.

The results of this analysis revealed that:

In the questionnaires, approximately 40% of items were not answered (item non-response). A decision was made to discard the case/respondent in subsequent data analyses. This resulted in 225 questionnaires that were usable.

4.3 CHARACTERISTICS OF THE SAMPLE

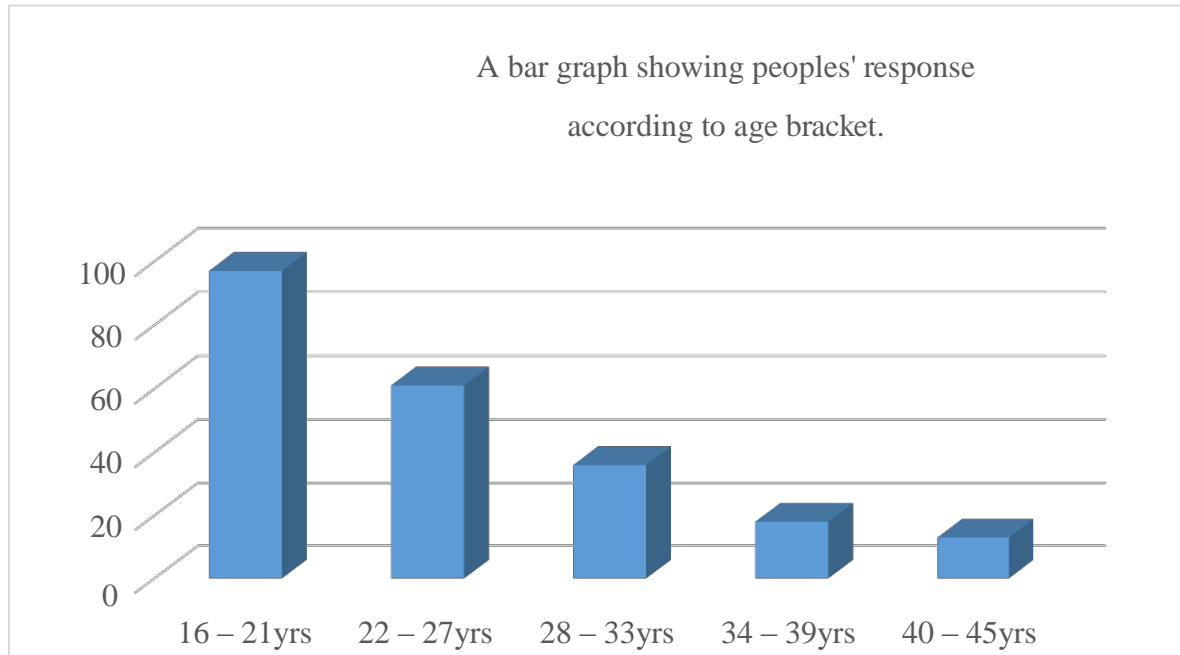
This section discusses the demographic data that include gender and age. Results in Table 4.1 indicate that, overall, a considerable number of respondents (60.4%, 136/225) were females, compared to only 39.6% (89/225) of male respondents. Regarding age, in Table 4.2, the majority of respondents (59.6%, 154/225) were below 31 years of age.

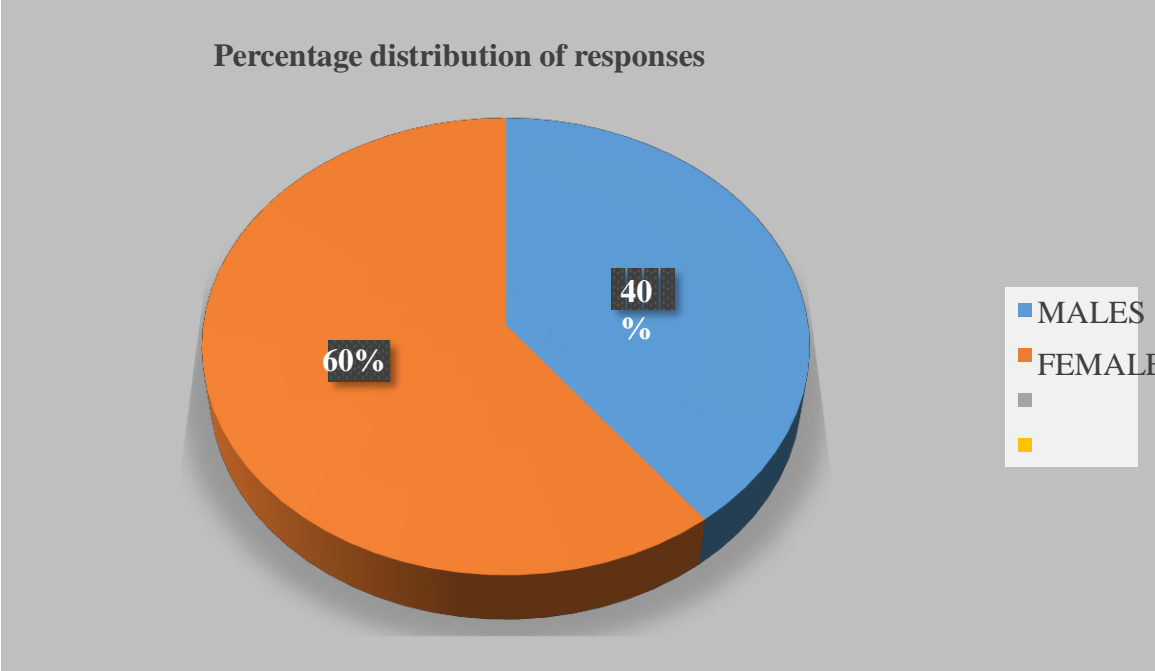
Table: 4.1 Gender frequency distribution

Gender	Frequency	Percent
Male	89	39.6
Female	136	60.4
Total	225	100

Table: 4.2 Age frequency distribution

Age (yrs)	Frequency	Percent
16 – 21yrs	97	43.1
22 – 27yrs	61	26.2
28 – 33yrs	36	15.1
34 – 39yrs	18	0.07
40 – 45yrs	13	0.09
Total	225	100.0





4.4 DESCRIPTION OF KNOWLEDGE AND ATTITUDE ABOUT HBV

The first research objective in this study was: To assess knowledge about hepatitis B among residents aged 16-45 years in Kaliro Town council, from July 2018 to March 2019.

The distribution of correct/incorrect answers by knowledge questions is presented in Table 4.4. The results indicate that 6 out of 7 items were answered correctly by more than half of the respondents. The vast majority knew that hepatitis B can be spread through contact with open wounds/cuts (95.8%) or people who are carriers of hepatitis B are at risk of infecting others (93.9%). However, only 15.8% of the respondents indicated that the hepatitis B vaccine is made from human blood.

Seven items comprised the Knowledge index from which a composite score was obtained. This index measured the number of correct responses on general knowledge questions regarding HBV infection and prevention. The potential range of scores was 0 to 7. The correct answers (actual scores) ranged from 1 to 6 with a mean score of 4.54 (*SD* = 0.92). The median and mode of correct answers were both 5.00. Also it was found that 87.6% had scored four or more indicating overall knowledge of the participants regarding HBV was quite good.

Table 4.4 Knowledge Items Frequency Distribution (n=225)

Questions	Responses		
	Correct scored 1	Incorrect scored 0	Don't know scored 0
	N(%)	N(%)	N(%)
Have you heard of a disease called hepatitis?	No 150 (51.4)	Yes 70(36.0)	5(8.7)
Have you heard of a disease called hepatitis B?	Yes 56 (93.9)	No 160 (2.6)	9(2.6)
Is Hepatitis B a viral disease?	Yes 198 (15.8)	No 25 (22.8)	2 (55.0)
Can Hepatitis B affect liver function?	Yes 178(95.8)	No 40 (1.6)	7 (1.9)
Can Hepatitis B cause liver Cancer?	Yes 120 (82.6)	No 100 (3.2)	5 (13.2)
Can Hepatitis B affect any age group?	Yes 13 (75.2)	No 197(10.6)	15 (12.5)
Can Hepatitis B be transmitted by un-sterilized syringes, needles and surgical instruments?	Yes 189 (78.5)	No 30(48.6)	6 (7.5)
Can Hepatitis B be transmitted by contaminated blood and blood products?	Yes 197 (16.8)	No 25 (22.8)	3(1.2)
Can Hepatitis B be transmitted by using blades of the barber/ear and nose piercing?	Yes 201 (97.8)	No 23 (2.8)	1(0.2)
Can Hepatitis B be transmitted by unsafe sex?	Yes 121 (82.6)	No 101(3.2)	5 (13.2)
Can Hepatitis B be transmitted from mother to child?	Yes 190 (78.5)	No 31(48.6)	6 (7.5)

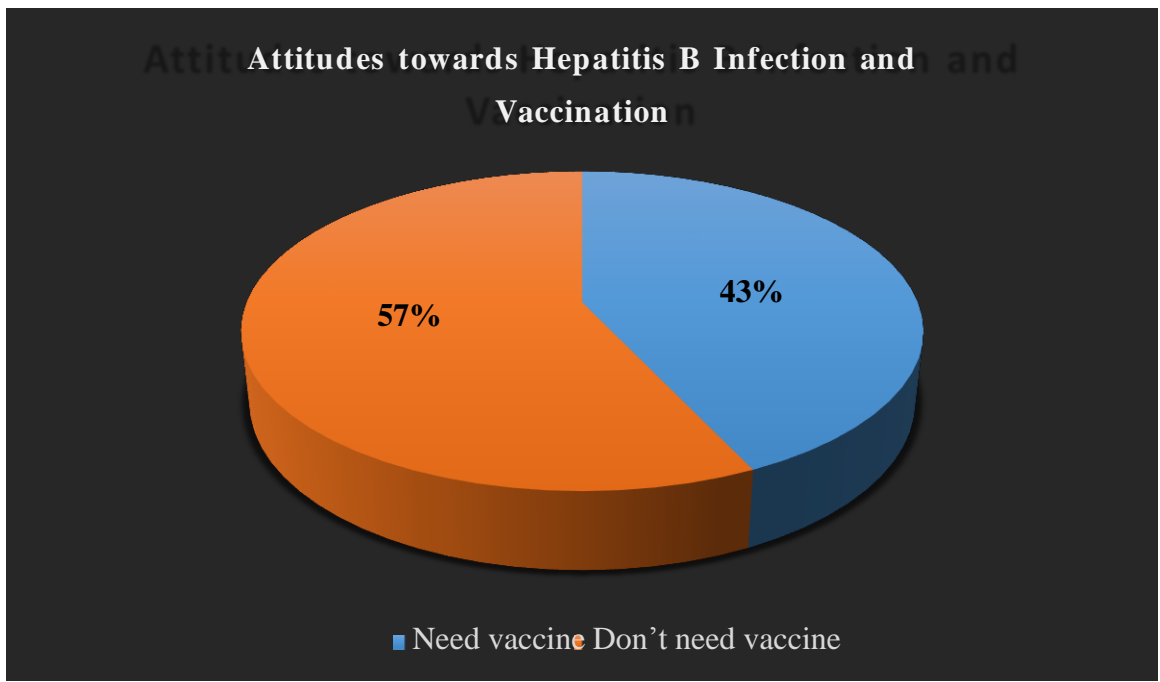
4.5. DESCRIPTION OF PEOPLE’S ATTITUDE ON HEPATITIS B VIRUS INFECTION.

Almost all the people (97.9%) believed that healthy people need vaccination against HBV, and 82% of them thought that people of their own age need vaccination. More than half of the people (64.8%) thought that only children under two years need vaccination. A majority of the people (82.4%) knew where people can get vaccinated and 93.1% believed that they will receive the vaccine. Less than half of the people (45.5%) believed that the vaccination can be free or received at a low cost, while 35.2% did not think so and 19.3% reported that they did not know. There was no significant difference in attitudes towards HBV vaccination between male and female people. See Table 3.

Table 3. Attitudes towards HBV infection among the people of kaliro town council basing on genders (N=225).

Attitudes Questions	Total (225)			Male (89)			Female (136)		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
	Do you know if healthy people need vaccination?	170	38	7	68	18	3	102	20
Do you think you can get Hepatitis B?	200	20	5	70	15	4	130	5	1
What would be your reaction if you found that you have Hepatitis B?	137	68	20	67	18	4	70	50	16
Do you know the place where one can get hepatitis B immunizations?	211	12	2	80	8	1	131	4	1
Do you know if vaccinations can be free or low-cost	220	3	2	86	2	1	134	1	1

through certain programs?									
Do you think you will receive hepatitis B vaccinations?	218	3	3	85	3	1	133	1	2



4.5. DESCRIPTION ON THE PREVENTION OF HEPATITIS B VIRUS INFECTION AMONG THE PEOPLE OF KALIRO TOWN COUNCIL.

Several practices were shown to prevent Hepatitis B virus infection.

4.5.1 Universal precautions

It was essential that consistent application of these measures would be adhered to in any health care delivery to protect both the patient and HCW.

Gloves, were worn to provide a protective barrier to prevent contamination of hands when touching blood, body fluids, secretion, excretion, mucous membranes and non-intact skin. The gloves were worn to reduce the risk of exposure to blood borne pathogens, transmission of microorganism present on hands of HCW to patient.

Gowns, were worn to prevent contamination of clothing and to protect the skin of HCWs from blood and body fluid exposures. HCWs wore gowns during the care of patients infected with pathogenic microorganisms and where there could be splashes of human blood and body fluids. This was done to reduce the opportunity for transmission of pathogens from the patient to the environment.

Shoe covers: Leg coverings, boots or shoe covers provided greater protection to the skin when splashes or large quantities of infected material were present or anticipated.

Hand washing: In addition to using barriers, hand washing was the single most effective measure to reduce transmitting micro-organisms to patients, HCWs or patient care takers.

Isolation: Contact precautions were designed to reduce the risk of transmission of pathogenic organisms. Patients were placed in private rooms or room with a patient who has active infection with the same microorganism.

4.5.2 Post-exposure prophylaxis

Following exposure to potentially HBV-infected body fluids, the exposed part of the body should immediately be washed with water and soap. The source patient must be tested for HBsAg.

If the exposed HCW was found to be anti-HBs negative, he / she would be given hepatitis B Immunoglobulin G (HBIG), followed by initiation of the HBV vaccine series for both unvaccinated HCWs and HCWs who are vaccinated but are non-responders.

4.5.3 Hepatitis B vaccination: The most efficient method of preventing several hospital-acquired infections such as HBV is through pre-exposure immunization.

CHAPTER FIVE

5.0 DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 RESPONSE RATE

The response rate of the people was similar to the other study findings. There was a significant difference in the response rate among the eight zones of the town council. Industrial area zone and Nakiyanja zone had very good response rates of 96.7% (29/30) and 95% (38/40), while Bukilindi zone, Budini zone and Kaliro zone had fair response rates of 90% (18/20), 92% (23/25) and 92% (23/25) respectively. Because of the good respondents at the two zones, the data obtained represent what is actually happening among the people of Kaliro town council.

5.2 KNOWLEDGE ABOUT HBV AMONG THE PEOPLE OF KALIRO TOWN COUNCIL

The results of this study showed that an overall of 87% of people had indicated good knowledge regarding hepatitis B infection in their area.

It was surprising to find out that only a half, 50% of the people knew that HBV can be got through casual contact and 8.7% did not know that shaking hands is not a mode of HBV transmission.

The vast majority (95.8% of the people knew that hepatitis B can be spread through contact with open wounds/cut. And that (93.9%) carries of HBV are at risk of infecting others.

5.3 ATTITUDES OF PEOPLE TOWARDS HEPATITIS B VIRUS INFECTION

The results of this study showed that almost half (52.9%) of the respondents who had never been vaccinated for HBV were less positive about prevention of HBV viral infection. The study findings correspond with the one among nurses in India and Kenya, the groups showed ignorance about the prevention of HBV (Sukriti *et al.*, 2008). The findings can be used to support the lack of positive attitude in this regard. This is contrary to the study findings in the USA reports that HCWs were positive about HBV prevention (Suckling *et al.*.,2006).

5.4 SUMMARY

There is one notable trend throughout this analysis of group differences, is that people enrolled at zones; Industrial area and Nakiyanja posted significantly higher scores than their colleagues at other zones across all but one index, indicating that these people are more knowledgeable, have

better attitudes, and exhibit better behaviors than many of their peers. However, the lower scores in the other zones could have been limited by the small number of participants especially in Bukilindi zone.

5.5. RECOMMENDATIONS ON IMPROVING KNOWLEDGE, ATTITUDES AND PREVENTION OF HEPATITIS B VIRUS INFECTION.

5.5.1 Creating a safe environment

Initiate strategies to demand compliance of protection in risky occupational procedures such as use of gloves and goggles. Follow up with serological test whenever there is an individual with work related injuries with biological material (Lee *et al.*, 2009). There should be adequate supply of equipment for procedures and safe needle disposal (Azap *et al.*, 2005).

5.5.2 Appropriate training and support

Continuous education and training of qualified health workers in Kaliro town council should be implemented consistently as they are responsible for supervising and teaching people about the preventive measures of HBV. Health workers should also lead by example through taking up HBV vaccination and this behavior could also help to increase vaccination coverage among all people in the district.

5.5.3 Effective sensitization of people about the existence of hepatitis B virus so as to increase on the knowledge and change the attitudes of people towards hepatitis B virus vaccination.

5.5.4 The government should construct more health units in all zones to ease quick accessibility to health services.

5.6 CONCLUSION

The study has assessed knowledge, attitudes and prevention of hepatitis B virus infection among the people of Kaliro Town Council. According to this study the knowledge, attitudes and prevention rates among the people still differs according to the zones they are enrolled in. There is a need to explore further the availability of equipment and sensitization of people in Kaliro Town Council with regards to implementation of infection control measures. Understanding how behavior changes takes place will the help of the hospital managers and community supervisors to

improve knowledge, attitudes and prevention of hepatitis B among the people. However, the implications of the findings could serve to inform managers to improve on the prevention strategies for HBV infection among the people.

REFERENCES

- Abdulai, M. A., Baiden, F., Adjei, G., & Owusu-Agyei, S. (2016). Low level of Hepatitis B knowledge and awareness among pregnant women in the Kintampo North Municipality: implications for effective disease control. *Ghana Medical Journal*, *50*(3), 157–162. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/27752190> <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC5044795>
- Addo, N. (2015). Knowledge , Attitude and Practices of Nursing Mothers Towards Hepatitis B As a Childhood Killer Disease : a Survey of Nursing Mothers in Ho , Ghana.
- Ahluwalia, S. K., & Kahlon, A. S. (2013). Hepatitis B vaccine : Coverage and factors relating to its acceptance among health care workers of a tertiary care center in North India, *3*(1), 55–59. <https://doi.org/10.4103/2230-8598.109324>
- Ahmad, A., Munn Sann, L., & Abdul Rahman, H. (2016). Factors associated with knowledge, attitude and practice related to hepatitis B and C among international students of Universiti Putra Malaysia. *BMC Public Health*, *16*(1), 611. <https://doi.org/10.1186/s12889-016-3188-5>
- Ahmad, A., Munn Sann, L., Abdul Rahman, H., Sann, L. M., Rahman, H. A., Munn Sann, L., & Abdul Rahman, H. (2016). Factors associated with knowledge, attitude and practice related to hepatitis B and C among international students of Universiti Putra Malaysia. *BMC Public Health*, *16*, 611. <https://doi.org/10.1186/s12889-016-3188-5>
- Aida Nagita, C. K. (2016, August 9). Hepatitis B cases worry Uganda Police. *New Vision*.
- Al-Thaqafy, M. S., Balkhy, H. H., Memish, Z., Makhdom, Y. M., Ibrahim, A., Al-Amri, A., & Al-Thaqafi, A. (2012). Improvement of the low knowledge, attitude and practice of hepatitis B

- virus infection among Saudi national guard personnel after educational intervention. *BMC Research Notes*, 5(1), 597. <https://doi.org/10.1186/1756-0500-5-597>
- Bin, H., Shah, U., Dar, M. K., Jamil, A. A., Atif, I., Jazib, R., ... Usmani, A. Q. (2015). Original Article Knowledge , Attitudes and Practices of Hepatitis B and C Among Barbers of Urban and Rural Areas of Rawalpindi and Islamabad, 27, 832–836.
- CDC. (2017). *Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger , UNITED STATES*. New York. Retrieved from www.cdc.gov/vaccines/hcp/acip-recs/index.html . Clinically
- Centers for Disease Control and Prevention. (2017). *Recommended Immunization Schedule for Adults Aged 19 Years or Older , United States , 2017* (Vol. 66). New York. <https://doi.org/10.7326/M16-2936>.U.S.
- Dan Longo, A. F. (2013). *Harrison's Gastroenterology and Hepatology*. (C. Langford, Ed.) (2nd ed.). New York: McGraw Hill Medical.
- Han, Z., Yin, Y., Zhang, Y., Ehrhardt, S., Thio, C. L., Nelson, E., ... Hou, H. (2017). Knowledge of and attitudes towards hepatitis B and its transmission from mother to child among pregnant women in Guangdong Province , China, 1–9.
- Hauser, S. C. (2011). *Mayo Clinic Gastroenterology and Hepatology Board Review* (4th ed.). minnesota: Oxford University Press.
- Ibrahim, N., & Idris, A. (2014). Hepatitis B Awareness among Medical Students and Their Vaccination Status at Syrian Private University. *Hepatitis Research and Treatment*, 2014, 1–7. <https://doi.org/10.1155/2014/131920>

- Landon, C., & Maru, A. (2013). Hepatitis B: raising awareness in the South Asian community in Preston. *British Journal of Community Nursing*, 18(1), 19–21. <https://doi.org/10.12968/bjcn.2013.18.1.19>
- Lee Goldman, A. I. S. (2016). *Goldman-Cecil Medicine*. (J. D. , Jeffrey DarazenMary Crow, Ed.) (25th ed.). Philadelphia: Elsevier.
- Lok, A. S. (2017). Patient education : Hepatitis B (Beyond the Basics). Retrieved September 25, 2017, from <https://www.uptodate.com/contents/hepatitis-b-beyond-the-basics?view=print>
- Malewezi, B., Omer, S. B., Mwangomba, B., & Araru, T. (2017). Protecting health workers from nosocomial Hepatitis B infections : A review of strategies and challenges for implementation of Hepatitis B vaccination among health workers in Sub-Saharan Africa. *Journal of Epidemiology and Global Health*, 6(4), 229–241. <https://doi.org/10.1016/j.jegh.2016.04.003>
- Nabatenzi, V. (2017, September). Mass Hepatitis B vaccination starts. *New Vision*. Retrieved from https://www.newvision.co.ug/new_vision/news/1331354/mass-hepatitis-b-vaccination-starts
- Ngaira, J. A. M., Kimotho, J., Mirigi, I., Osman, S., Ng'ang'a, Z., Lwembe, R., & Ochwoto, M. (2016). Prevalence, awareness and risk factors associated with Hepatitis B infection among pregnant women attending the antenatal clinic at Mbagathi District Hospital in Nairobi, Kenya. *The Pan African Medical Journal*, 24, 315. <https://doi.org/10.11604/pamj.2016.24.315.9255>
- Noubiap, J. J. N., Nansseu, J. R. N., Kengne, K. K., Tchokfe Ndoula, S., & Agyingi, L. A. (2013). Occupational exposure to blood, hepatitis B vaccine knowledge and uptake among medical students in Cameroon. *BMC Medical Education*, 13(November 2013), 148. <https://doi.org/10.1186/1472-6920-13-148>

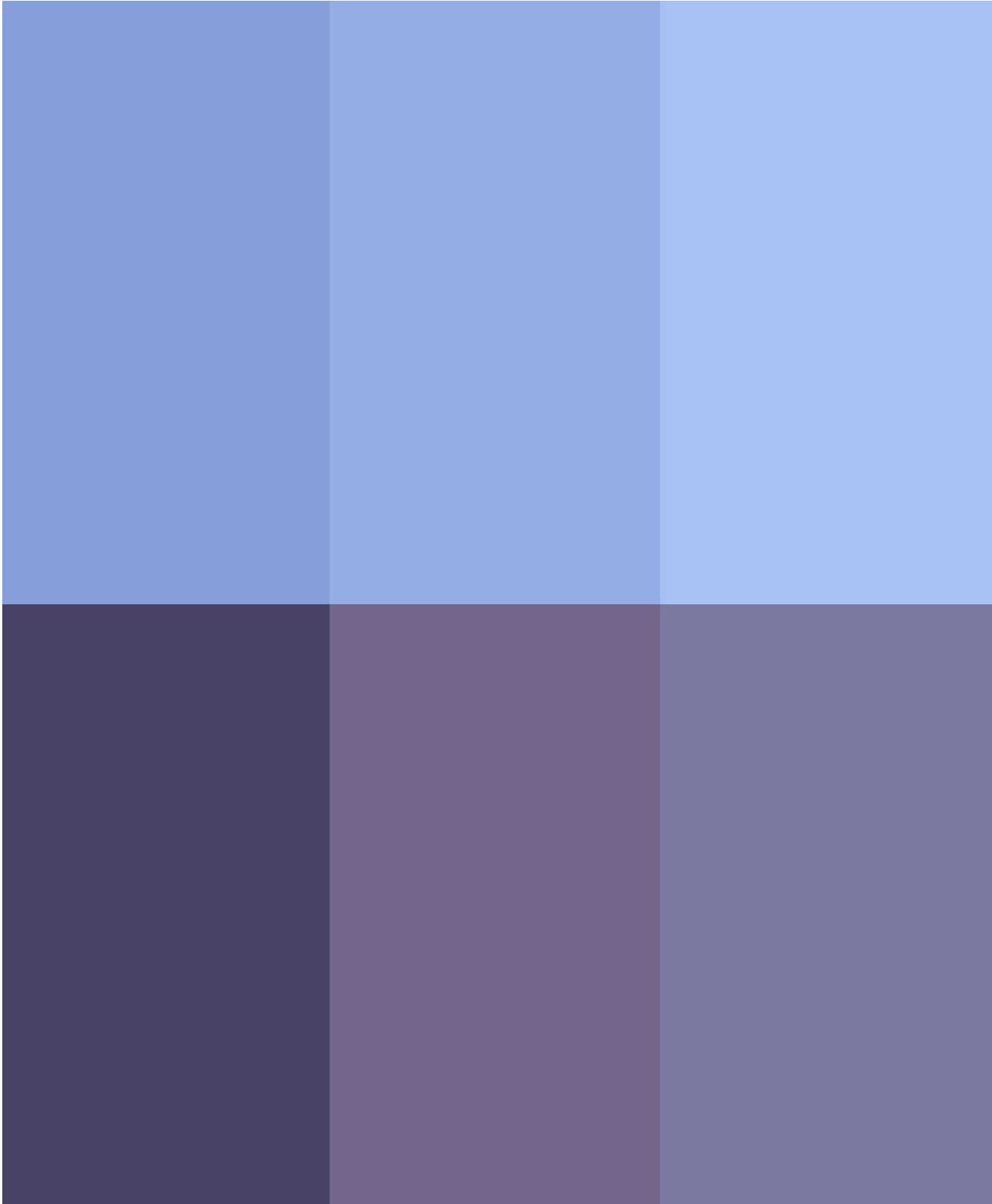
- Okeke, E. N., Ladepe, N. G., Agaba, E. I., & Malu, A. O. (2015). Hepatitis B vaccination status and needle stick injuries among medical students in a Nigerian university. *Nigerian Journal of Medicine : Journal of the National Association of Resident Doctors of Nigeria*, 17(3), 330–332. <https://doi.org/10.4314/njm.v17i3.37404>
- Organization, W. H. (2016). *WORLD HEALTH STATISTICS 2016: Monitoring Health for The SDG s*. Geneva.
- Othman, S. M., Saleh, A. M., & Shabila, N. P. (2013). Knowledge About Hepatitis B Infection Among Medical Students in Erbil City, Iraq. *European Scientific Journal*, 3(December), 1857–7881.
- Pathmanathan, H., & Lakshmanan, P. (2014). Assessment of awareness and knowledge of hepatitis B among the residents of Puchong, Malaysia. *Tropical Journal of Pharmaceutical Research*, 13(10), 1719–1724. <https://doi.org/10.4314/tjpr.v13i10.22>
- Pathoumthong, K., Khampanisong, P., Quet, F., Latthaphasavang, V., Souvong, V., & Buisson, Y. (2014). Vaccination status, knowledge and awareness towards hepatitis B among students of health professions in Vientiane, Lao PDR. *Vaccine*, 32(39), 4993–4999. <https://doi.org/10.1016/j.vaccine.2014.07.022>
- Paul, N., & Peterside, O. (2015). Hepatitis B Vaccination Rate among Medical Students at the University of Port Harcourt Teaching Hospital (Upth). *World Journal of Vaccines*, (February), 1–7. <https://doi.org/10.4236/wjv.2015.51001>
- Pyrsoopoulos, N. T. (2017). Hepatitis B: Practice Essentials, Background, Pathophysiology. Retrieved September 25, 2017, from <http://emedicine.medscape.com/article/177632-overview>

- Samji, N. S. (2017). Viral Hepatitis: Background, Pathophysiology, Etiology. Retrieved September 25, 2017, from <http://emedicine.medscape.com/article/775507-overview>
- Staples, J., Gershman, M., & Fischer, M. (2010). Yellow fever vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR. Recommendations ...*, 59(RR-7), 1–27. <https://doi.org/10.1007/s13398-014-0173-7.2>
- ul Haq, N., Hassali, M. A., Shafie, A. A., Saleem, F., Farooqui, M., & Aljadhey, H. (2012). A cross sectional assessment of knowledge, attitude and practice towards Hepatitis B among healthy population of Quetta, Pakistan. *BMC Public Health*, 12, 692. <https://doi.org/10.1186/1471-2458-12-692>
- WHO. (2017). *Table 2: Summary of WHO Position Papers - Recommended Routine Immunizations for Children* *Table 2: Summary of WHO Position Papers - Recommended Routine Immunizations for Children*. Geneva.
- World Health Organization. (2017). *Global hepatitis report*. Geneva. Retrieved from <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>
- Yiga, B. (2016, February 28). Hoima on Hepatitis B Alert. *Uganda Today*.

APPENDICES

APPENDIX ONE: CONSENT FORM

CONSENT FORM



APPENDIX TWO: DATA COLLECTION TOOL

STUDY QUESTIONNAIRE

SERIAL NO:

INTRODUCTION

STUDY TITLE: TO ASSESS THE KNOWLEDGE, ATTITUDE AND PREVENTION OF HEPATITIS B VIRUS INFECTION AMONG RESIDENTS OF KALIRO TOWN COUNCIL BETWEEN 16-45 YEARS.

CONFIDENTIALITY: I am *Walusimbi Doreen*, a fourth year medical student at Kampala International University – Western Campus carrying out the above research. I would hereby wish to assure you that the information you will provide will be accorded the confidentiality it deserves and will not be used for purposes other than those meant for this research. You have the right not to answer any questions you feel uncomfortable to and you are free to pull out of the study at any time you wish.

PART ONE: DEMOGRAPHIC CHARACTERISTICS

AGE

GENDER (tick appropriate)

MALE FEMALE

EDUCATION

NO FORMAL EDUCATION

PRIMARY LEVEL

SECONDARY LEVEL

TERTIARY LEVEL

OCCUPATION

ROUGH ESTIMATE OF MONTHLY INCOME

ADDRESS:

LOCALITY

RURAL

URBAN

PART TWO: MAIN BODY

SECTION A. KNOWLEDGE ON HEPATITIS B

1. Have you heard of a disease called hepatitis? YES NO

2. Have you heard of a disease called hepatitis B? YES NO

3. Where/how did you get to know about hepatitis and hepatitis B?

New papers and magazines

Health workers

Family/friends/neighbors

TV, Radio and Internet

Religious leaders/teachers

HB information leaflets

brochures, posters

Others (specify)

4. Is Hepatitis B a viral disease?

5. Can Hepatitis B affect liver function?

6. Can Hepatitis B cause liver Cancer?

7. Can Hepatitis B affect any age group?

8. What are the symptoms of hepatitis B? (tick all that are applicable)

Same like cold and flu (fever, running nose, cough)

Jaundice is one of the common symptoms of Hepatitis B

nausea, vomiting and loss of appetite common symptom of Hepatitis B

Some patients have no symptoms

9. Can Hepatitis B be transmitted by un-sterilized syringes, needles and surgical instruments? YES NO
10. Can Hepatitis B be transmitted by contaminated blood and blood products? YES NO
11. Can Hepatitis B be transmitted by using blades of the barber/ear and nose piercing? YES NO
12. Can Hepatitis B be transmitted by unsafe sex? YES NO
13. Can Hepatitis B be transmitted from mother to child? YES NO
14. Can Hepatitis B be transmitted by contaminated water/food prepared by person suffering with these infections? YES NO
15. Is Hepatitis B curable/treatable? YES NO
16. Can Hepatitis B be self-cured by body? YES NO
17. Is vaccination available for Hepatitis B? YES NO
18. Is specific diet is required for the treatment of Hepatitis B? YES NO

(Knowledge will be assessed by giving 1 to correct answer and 0 to the wrong answer.

The scale will measure knowledge from maximum 20 to minimum 0. Scores < 11 will be taken as poor, ≥ 11 as adequate knowledge of Hepatitis B).

SECTION B: ATTITUDES TOWARDS HEPATITIS B

1. Do you think you can get Hepatitis B? YES NO
2. What would be your reaction if you found that you have Hepatitis B?
Fear Shame Surprise Sadness
3. Who would you talk to about your illness?
Physician Spouse Parents Child
Other Relatives Friends No one
4. What will you do if you think that you have symptoms of Hepatitis B?
Go to Health facility
Go to Traditional healer
Others (specify)
5. If you had symptoms of Hepatitis B, at what stage you will go to the health facility?
After own treatment fails
After 3-4 weeks of the appearance of symptoms
Soon as I realize the
symptoms are of Hepatitis B
Will not go to physician
6. How expensive do you think is the diagnosis and treatment of Hepatitis B?
Free Reasonable
Somewhat expensive
Expensive
Don't know

7. What worries you most if you will be diagnosed with Hepatitis B

Fear of death

Fear of disease spread to family

Cost of treatment

Isolation from the society

Other (specify)

.....

(Attitude will be assessed by giving 1 to positive and 0 to negative attitude. The scale will classify attitude as positive with score >4 and negative ≤4)

SECTION C: VACCINATION OF HEPATITIS B.

1. Have you ever been screened for Hepatitis B? YES NO
2. Have you been fully vaccinated against Hepatitis B? YES || NO

If yes to (2) above, how many doses of vaccine have you gotten so far?

THREE DOSES

TWO DOSES

SINGLE DOSE

3. Do you ask and verify for a new syringe before use when you visit a health facility?

.....

4. Do you ask if blood has been screened before it's transfused into you?

.....

5. Do you ask your barber to change blade/or for safe equipment for ear and nose piercing or shaving?

.....

6. In case you are diagnosed with Hepatitis B, would you go for further investigation and treatment?
7. Do you avoid meeting Hepatitis B patients?
8. Have you ever participated in health education program related to Hepatitis B?
.....

(Practice will be assessed by giving 1 to positive and 0 to negative attitude. The scale will classify practice as good with score >5 and poor ≤5).

Do you have anything else you want to add, any question, clarification, concern etc.?

THANK YOU.

APPENDIX THREE: WORK PLAN

S/N	Activity	Months in the years 2018 – 2019						
		Aug 2018	Sep 2018	Jan 2018	Feb 2019	March 2019	April 2019	May 2019
1	Identification of the proposals							
2	Proposal writing and approval							
3	Data collection and analysis							
4	Report writing and binding							
5	Final report submission							

APPENDIX FOUR: BUDGET

S/N	Item	Quantity	Unit price	Total cost
1	Stationary			
A	Printing Paper Reams	1	15000	15,000
B	File Folders Pieces	2	3000	6,000
C	Flash disk	1	25,000	25,000
D	Pens	2	1000	2000
E	A4 size envelopes	3	1000	3000
	Sub total			51,000
2	Typing Services			
A	Questionnaire	200	500/=	100,000
B	Proposal Copies	3	10,000/=	30,000
C	Report Copies	4	12,000/=	48,000
	Sub total			178,000
3	Data Collection			
A	Transport (To and from study area) Days	10 trips	2,000	20,000
B	Research Assistants	2	50,000	100,000
C	Literature Search (Libraries, internet)		100,000	100,000
	Sub total			220,000

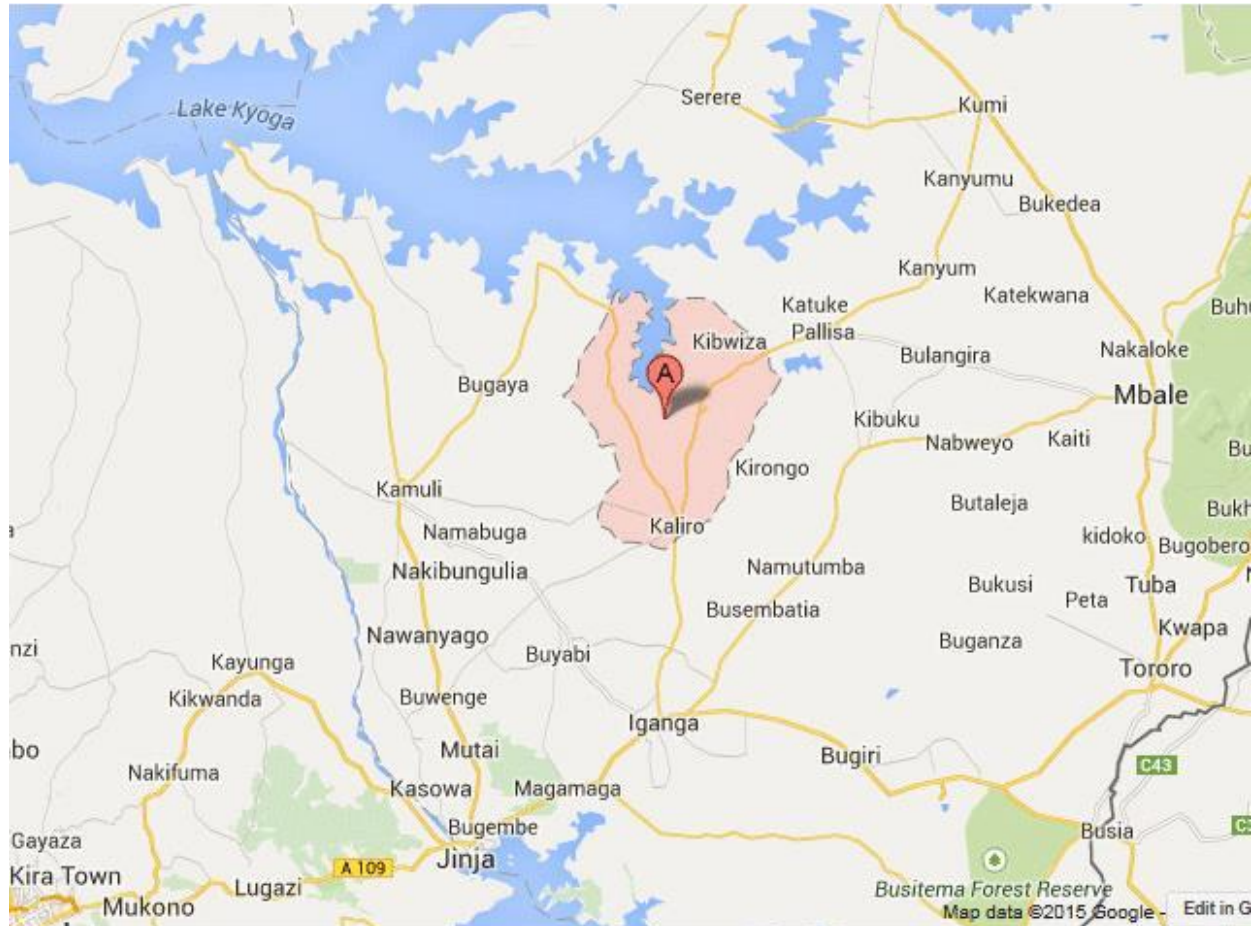
	Total (220,000+178,000+51,000)			449,000
	PLUS 15% contingency			67,350
	Grand Total			516,350

APPENDIX FIVE: KREJCIE & MORGAN TABLE (1970)

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

APPENDIX SEVEN (a): KALIRO TOWN COUNCIL AND ITS NEIGHBOURS



APPENDIX SEVEN (b): KALIRO EXACT LOCATION ON MAP OF UGANDA (RED)



APPENDIX EIGHT: GLOBAL HEPATITIS B DISTRIBUTION, CDC 2014

Do You Have Ties to an Affected Country?

