PREVALENCE, KNOWLEDGE AND PREVENTIVE PRACTICES AGAINST HEPATITIS B AMONG BLOOD DONORS AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN, OYO STATE, NIGERIA

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CERTIFCATION

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DEDICATION

This dissertation is dedicated to the Almighty God, the giver of life, the Alpha and Omega, and to my husband Mr Oluremi Ibidolapo Oluwaseun.

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ABSTRACT

Hepatitis B is a viral infection that attacks the liver and can result in both acute and chronic disease. The major modes of transmission include sexual intercourse, mother to child at birth, exposure to infected blood, exposure to infected body fluids (saliva, menstrual, vaginal and seminal fluids). Hepatitis B is more deadly than HIV/AIDs and tuberculosis, with increasing prevalence and mortality when compared with other transfusion transmissible infections. Since blood donors are apparently healthy individuals, information on Hepatitis B virus (HBV) prevalence, knowledge and their preventive practices show the state of the apparently healthy general public and help in the development of strategies for prevention. This study was therefore designed to investigate the prevalence, knowledge, and preventive practice among blood donors against HBV at the University College Hospital, Ibadan.

The study was a descriptive cross-sectional survey carried out among blood donors at the UCH. A purposive sampling technique was used in selecting 252 consenting respondents. An interviewer's administered questionnaire was used to obtain information on socio demographic characteristics, prevalence, knowledge and preventive practices against HBV. Knowledge of the causative organism, causes, and mode of transmission, affected organ, and prevention of HBV was assessed using an 18-point scale and scores of 0-6, was considered as poor knowledge, >6–12 as fair knowledge and > 12 was considered good knowledge. Preventive practices relating to respondent's behaviours (sexual behaviour, vaccination and screening) were assessed using a 9-point scale with scores <6 as poor and ≥6 as good. Prevalence was gotten from the medical laboratory records. Data were analysed using descriptive statistics and Chi square test at $p \leq 0.05$.

The age of the Respondent's was 34.6±8.2 years. Majority (85.3%) were male and 66.3% were married. About 67.1% had tertiary education. While 29.4% were self-employed. Only 25.4% knew their HBV status and 0.4% had history of HBV in the family. The laboratory result revealed that 10.3% of the respondents were HBV positive, 2.3% were Hepatitis C virus (HCV) positive and only 2.0% were positive for Human immunodeficiency virus (HIV). The knowledge mean score was 6.1±4.1, Almost half (51.2%) of the respondents had poor knowledge, 17.5% had good knowledge. The mean preventive practice score of respondents on HBV measures was 3.6±1.6 with 73.4% having poor preventive practices. Respondent's sources of information on HBV include Health workers (30.6%), family and friends (8.7%), electronic media (7.5%), community group (7.5%), print media (5.6%),

internet (3.2%) and religious centres (2.0%). Most respondents most preferred source of information is health workers (34.1%). There was a statistically significant difference between respondent's level of knowledge of Hepatitis B and preventive practices.

The prevalence of HBV was high when compared to other transfusion transmissible infections (TTIs), also knowledge was fair and prevention practice was poor. Therefore, there is the need for urgent hospital-based, community, religious centres and the media-based health education and promotion programmes to create awareness, improve knowledge and preventive practices relating to Hepatitis B virus infection among blood donors and the general public.

Key words: Preventive Practices, Hepatitis B virus, Blood Donors.

Word Count: 492

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LIST OF ABBREVIATIONS

CDC- Center for Disease Control and Prevention

FHF- Fulminant Hepatic Failure

HBV- Hepatitis B Virus

HCV – Hepatitis C Virus

HIV – Human Immunodeficiency Virus

TTIs – Transfusion Transmissible Infections

LG- Local Government

STI- Sexually Transmitted Infection

WHO- World Health Organization

KS - Knowledge Score

cccDNA - covalently closed circular DNA

HCC - hepatocellular carcinoma

UCH – University College Hospital

Definition of Terms:

Hepatitis B: This is one of the acute form of hepatitis which is a serious liver infection caused by the hepatitis B virus that is easily preventable by vaccine, spread by sexual contact or unsafe blood transfusion.

Blood Donors: Blood donors are individual who will have blood drawn from them to be used for transfusion purpose.

Prevalence: is the total number of cases of a disease in a given statistical population at a given time.

Knowledge: knowledge describes how well a concept is known. The general understanding of a concept is knowledge.

Preventive Practices: these are the things that could be done to protect from a disease condition or harm.

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Blood donation and transfusion are an integral aspect of health care services aimed at saving lives of people with blood loss or shortage due to injury, diseases and bleeding disorders. It is important to consider the risks involved in the course of collection and transfusion of blood through thorough screening and by carrying out all the precautionary tests required on the blood of the donors and recipients. One of the important precautionary operations involved in blood transfusion is the prevention of the infections that may arise through the transfused blood and these are generally referred to as Transfusion Transmitted Infections (TTIs). TTIs are caused by viruses, parasites or other potential pathogens that can be transmitted in donated blood through transfusion to a recipient (Song, Bian and Petzold, 2010).

Hepatitis is a condition that is characterized by the inflammation of the liver and the presence of inflammatory cells in the liver tissue. This may result from drug side effect or adverse effect in the case of acetaminophen which is the second most common cause of hepatitis in the United States (Adrienne, and Praveen, 2017). Viral Hepatitis is the most common cause of Hepatitis which is caused by a group of viruses. There are five main types of viral hepatitis: types A, B, C, D, and E. These are of public health concern because of their potential for outbreaks and endemic spread. Types A and E are faecal orally transmitted (they could be ingested from contaminated food or water) and could be treated. Hepatitis B and C are typically known to lead to a chronic infection, and are transmitted parenterally. Hepatis D is also transmitted through the parenteral route. Hence the mode of transmission of these viruses includes: transfusion of unsafe blood, sexual contact, mother to child, etc. (Sharma, Saini, and Chwla, 2005).

Hepatitis B Virus Infections (HBVI) is one of the acute forms of these transfusion transmissible infections (TTIs) which causes inflammation of the liver as a result viral infection transmitted through blood transfusion, sexual contact and body fluids. The World Health Organization in 2019 reported that HBV has infected nearly 2 billion people around the world with 257 million among the total number to be suffering from chronic and lifelong forms of this disease (WHO, 2019).

Hepatitis B Virus Infections that are related to transfusion of blood remains a major concern in the practice of modern medicine with an evident increase in the prevalence, incidence and spread of HBV and other TTIs which are generally referred to as blood-borne infections majorly as a result of mistakes and accident which occurs due to lapses in result interpretation, equipment sterilization as well as improper waste management of hazardous health care waste. This high rate of the residual risk of transfusion-transmissible HBV reflects the global epidemiology of the virus where when considering the importance of the preventive practices that can reduce the spread of HBV transmission through blood transfusion, comprehensive HBV screening programs of blood donors have been implemented worldwide since the early 1970s, Human race will be free of this deadly infectious disease (Song, Bian and Petzold, 2014). Inactive carriers are still infectious to others through parenteral or sexual transmission. Inactive carriers may develop antibodies and clear the virus. However, some inactive carriers may develop a chronic hepatitis, which can be determined by liver histology, liver function tests and the levels of HBV DNA. Inactive carriers remain at risk for hepatocellular carcinoma (HCC), although the risk is low. Presently there is no effective antiviral therapy for patients in an inactive carrier state (Sharma, Saini, and Chwla, 2005).

Knowledge of Hepatitis B virus is low in Nigeria; many educated individuals including those with tertiary education as their highest level of education know little or nothing about HBV. A good knowledge of HBV virus, modes of transmission and infection routes as well as adequate vaccination may reduce infection rate. The knowledge of HBV is generally low among the populace as reported in several studies: Pregnant women in Ibadan, barbers in Ghana (Adeyemi, Enabor, Ugwu, Bello, *et at*., 2015; Adekanle, Ndububa, Olowookere *et al*., 2015), Turkish community in Netherland, (Adoba, Boadu, Agbodzakey, *et al*., 2015). On the other hand, studies carried out among health care workers in Sudan and Morocco, (Adekanle, Ndububa, Olowookere, *et at*., 2015), Sokoto, Nigeria, revealed that most of them had a good knowledge of blood as a medium of infection but lacked adequate preventive practices (Hassan, Awosan, Nasir, Tunau, Burodo, Yakubu, and Oche, 2016).

In 1986, a second generation of genetically engineered (or DNA recombinant) hepatitis B vaccines was developed (Hepatitis B foundation, 2019). Hence, vaccination became the most effective preventive measure against HBV. In a study conducted by Kesieme, Uwakwe, Irekpita, Dongo, Bwala, and Alegbeleye, (2011), among operating room personnel in Nigeria, despite a good level of knowledge, most of the participants were still not vaccinated.

1.2. Statement of the Problem

According to the U.S. Centres for Disease Control and Prevention, Chronic Hepatitis B infection menace remains a major public health challenge. According to the 2011-2012 statistics released the USCDC, an estimated 847 thousand persons were reported to be living with HBV. It was also reported that HBV is responsible for approximately 41 thousand deaths in the US alone and remain in top fifteen (15) on the list of the leading cause of death (US Centres for Disease Control and Prevention, 2016; Xu, Murphy, Kochanek and Bastian, 2018).

According to WHO about 257 million people were living with HBV infection in Africa and Western Pacific where the prevalence is predominantly the highest (6.1% and 6.2% respectively) and out of the figures for Africa, HBV is said to be prevalent in Nigeria with an estimated figure being around 13.6% (Musa, Bussell, Borodo, Samaila, and Femi, 2015) and a varying figures of 7.4 -26% in Nigeria as a whole (Eze, Akinosun and Emelike, 2013; Global hepatitis report, 2017*).*

It is evident that that blood donations saves life but it can also predispose the recipient to some life-threatening infectious diseases if care is not taken. Therefore, the donors need to understand the good practices that can prevent them from transmitting transfusion related infections especially the deadly ones like Hepatitis B (Donbraye, Japhet, Adesina and Abayomi, 2014).

Since blood donors are apparently healthy individuals among the normal population, being positive with Hepatitis B without knowing continue to be putting the larger population into deep quagmire regarding the burden of this deadly infection. Therefore, this study will be required to provide more information on the source of information, knowledge, and preventive practices of Hepatitis B among these blood donors in University College Hospital Ibadan.

1.3. Justification for the Study

Most of the existing literatures on Hepatitis B Virus related studies are hospital-based and were done among healthcare workers. The studies focussed on the level of knowledge, attitude and practices of the healthcare worker based on their training. However, the ill-health effects associated with blood donors without good preventive practices will not only affect the donors but their family members and community at large. It is therefore believed that conducting this study among blood donors will help in the design of health promotion and education programs that will help to improve preventing practices relating to blood donations among this set of

blood donors. More so, discussing preventive practices of blood donation will create awareness, improve knowledge of blood donation processes and sensitize these blood donors on certain practices related to their safety. This will also ensure a sustainable and easy solution to prevent the general burden of blood transfusion related infections through a joint effort that will ensure willingness to follow treatment, reduces the prevalence of Hepatitis B Virus and its associated ill health effects locally and globally.

1.4 Research Questions:

i. What is the Prevalence of Hepatitis B among blood donors in University College Hospital Ibadan?
ii. What is the level of knowledge of Hepatitis B among blood donors in the University College Hospital, Ibadan?
iii. What are the sources of information available to donors at the University College Hospital, Ibadan, about Hepatitis B Virus?
iv. What are the preventive practices of Hepatitis B among blood donors at the University College Hospital, Ibadan?

1.5. Objectives of the Study:

1.5.1 Broad Objectives:

The broad objective is to investigate the prevalence, knowledge and preventive practices of Hepatitis B among blood donors at the University College Hospital, Ibadan, Oyo State.

1.5.2 Specific objectives:

i. To determine the prevalence of Hepatitis B among blood donors at the UCH Ibadan.
ii. To determine the sources of information on Hepatitis B among blood donors at the UCH Ibadan.
iii. To assess the level of knowledge of Hepatitis B among blood donors at the UCH Ibadan.
iv. To discuss preventive practices of Hepatitis B among blood donors at the UCH Ibadan.

1.6 Research hypotheses

The following Null hypotheses were tested:

Ho 1: There is no significant difference between socio-demographic characteristics (Gender, Level of education, and occupation) of respondents and the knowledge of HB

Ho 2: There is no significant difference between socio-demographic characteristics and Hepatitis B preventive practices of respondents

Ho 3: There is no significant difference between knowledge of respondents and HB preventive practices.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Viral infections account for a considerable number of deadly neurological illness and infectious diseases among human population all over the world and among all these viral infections, end-organ damage from a viral infection may produce a concomitant neurologic illness indirectly e.g., encephalopathy in the setting of viral hepatitis-associated liver failure which can cause acute and chronic diseases (Sejvar, 2014).

Hepatitis B (HB) is one of the most deadly viral infections affecting human population all over the world, with nearly 30% of the world's population, i.e. about 2 billion people, having serological evidence of infection with hepatitis B virus (HBV),which is second to tobacco as a known human carcinogen putting a death toll on about a million number of people as a result of disease burden from chronic liver disease, which include liver cancer hepatomegaly, cirrhosis, and hepatocellular carcinoma and liver cirrhosis (Goldstein, 2005).

Hepatitis B Virus (HBV) is an enveloped, DNA virus with an icosahedral symmetry. It was first identified by Dr. Baruch Blumberg in the year 1967. The International Committee on Taxonomy of Viruses classified this virus to the family *Hepadnaviridae and* genus *Orthohepadnavirus*. The Hepatitis B Virus is a blood-borne virus which is way more infectious and dangerous than HIV despite the fact that they are transmitted in the same ways (Prestes, Vieira, Isaac, and Portelinha, 2016).

Viral hepatits can be classified by mode of transmission, type of virus and chronicity of infection. Hepatitis A and E are both transmitted by fecal-oral route, while B, C, D amd G are considered to be blood-borne. Hepatitis B is a DNA and a hepadnavirus while A, C, D, E and G are RNA viruses. All of these viruses can cause acute diseases lasting several weeks including jaundice; dark urine, nausea; vomiting and abdominal pain. Jaundice has been considered a diagnostic marker for hepatitis historically, although viral hepatitis can occur without the presence of jaundice. This virus can also cause chronic infection which the patient never gets rid and may develop into cirrhosis of the liver or liver cancer. Hepatitis B Virus is the most serious type of viral hepatitis causing hepatitis for which vaccine is available (Pourkarim, Amini-Bavil-Olyaee, Kurbanov, Van Ranst, and Tacke, 2014).

2.2 Mode of Transmission

The mode of transmission of an infection describes several routes and ways by which an infection spread from persons to persons. Hepatitis B virus, when present in the body will be present virtually in all body fluids including both secretions and excretions. However, only blood, body fluids that contain visible blood, semen and vaginal secretions present a risk of transmission of HBV. HBV is transmitted when infective blood or infective body fluid come in contact with the body through the skin (either by direct contact or intravenous during blood transfusion or drug administration) and other openings in the body such as the nose, sexual openings and mouth. Sexual contact, Blood transfusion, Drug use through injection, health facility exposure (Health workers), Mother to child transmission from birth and breastfeeding constitute the major modes of HBV transmission (Pourkarim *et al.,* 2014).

Percutaneous exposures that have resulted in HBV transmission embody transfusion of unscreened blood or blood merchandise, sharing unsterilized injection needles for IV drug use, haemodialysis, treatment, tattooing and injuries from contaminated sharp instruments sustained by hospital personnel. HBV is stable on environmental surfaces for a minimum of seven days and is a hundred times a lot of infectious than HIV (Guidelines, Emergency Management of injuries, 2016).

There are several known high-risk groups for acquiring an HBV or HCV infection, these include people who require blood or blood products, people interned in prisons, people who inject drugs, people with multiple sexual partners, migrants originating from endemic regions, and new-borns from HBV or HCV chronically infected mothers (vertical transmission) (Guidelines, Emergency Management of injuries, 2016).

Table 2.1: Mode of Transmission of Hepatitis B virus

Types of Transmission	Route of Transmission	Mode of Transmission
Horizontal Transmission 1. Sexual Transmission 2. Parenteral Transmission	Seminal fluid, Blood, Saliva	Unprotected sexual contact (men having sex with men, man and woman sexual contact, multiple sexual partners, commercial sex workers) Direct blood to blood contact or through transfusion of unsafe blood. Unsterilized sharp objects, (needles). Exposure of open wound. Sharing of sharp objects. (Injection drug users, barber shop with one clipper for every customer, sharing of blades, etc.) Body piercings and tattoos
Vertical Transmission 1. Perinatal Transmission	Mother to child	During childbirth, through contact with mother's body fluids. A newborn can be infected with HBC from his or her mother during child birth. This happens when the baby comes in contact with the mother's blood or other infectious body fluids.

(Liang, Rehermann, Seeff, and Hoofnagle, 2000).

2.3 Prevalence of Hepatitis B

According to a WHO fact sheet, the prevalence of hepatitis B infection varies across the continents and locations, with the highest prevalence found in Africa and Western Pacific Region. It is endemic in some areas in sub-Saharan Africa and East Asia where about 5–10% of the adult population are affected with this deadly infection which directly caused nearly a million (~887,000) deaths worldwide in 2015 and with more than 257 million people live with HBV infection globally which present an alarming figure (Ofori-Asenso, Richard and Agyeman, 2016).

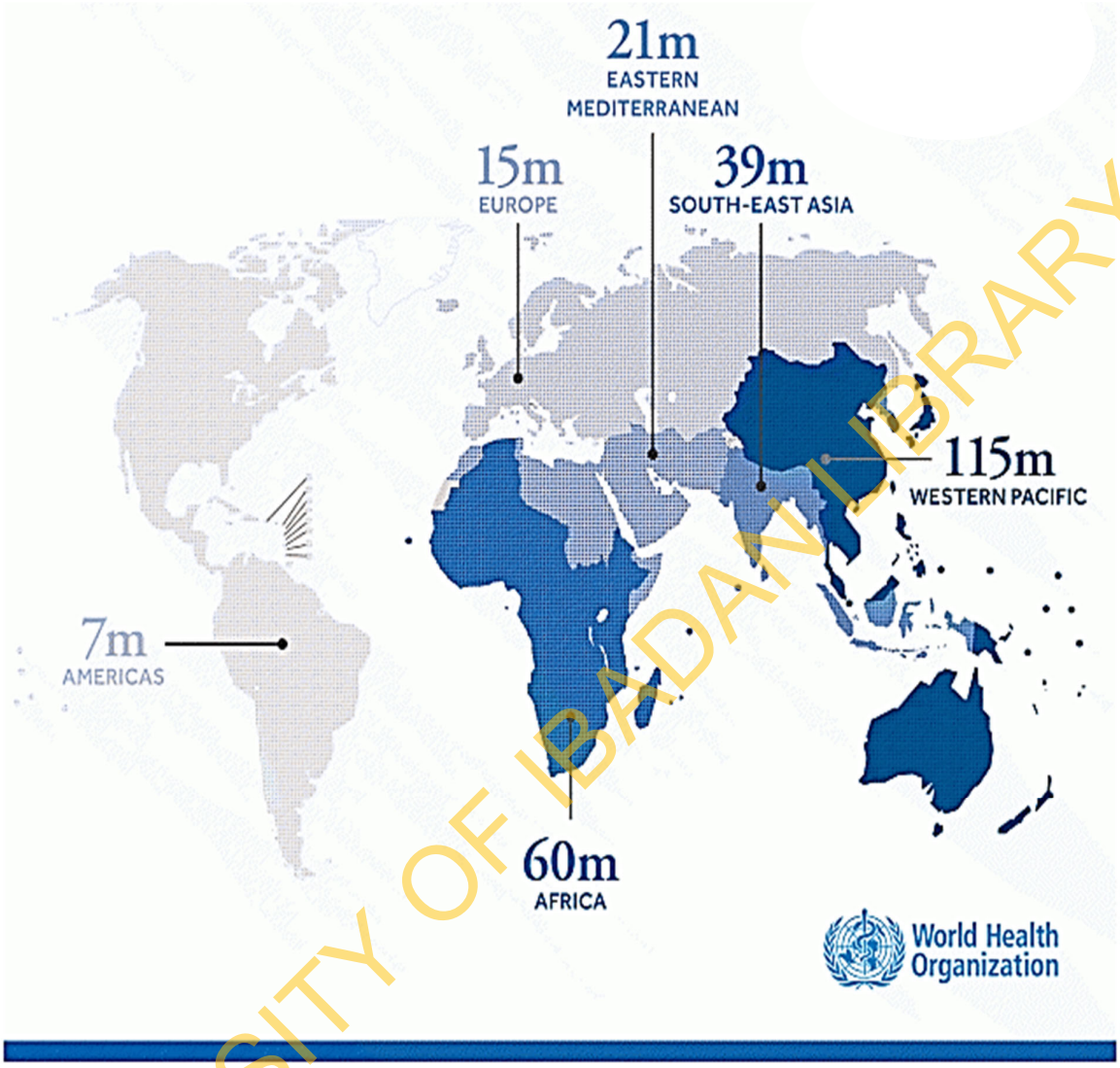


Fig. 2.1 Word Hepatitis B Virus Prevalence (WHO, 2017).

2.3.1 Global prevalence of Hepatitis B

Hepatitis B virus has a global distribution, more than 77,000 cases of sexually transmitted hepatitis B infection occur annually in the united states, a new discovery of 200,000 -300,000 new cases, The prevalence of Hepatitis B carriers varies from 0.1% to 2% in low prevalence areas like the United States and Canada, Western Europe, Australia and New Zealand, to 3% to 5% in intermediate prevalence regions like the Mediterranean countries, Japan, Central Asia, Middle East, and Latin and South America, to 10% to 20% in high prevalence regions like South Asia, China, Sub-Saharan Africa. Hepatitis B is a major public health problem. About two billion people are affected with hepatitis B all over the world and more than 350 million have chronic which is a lifelong infection (Ranjbar, Davari, Izadi, Jonaidi, and Alavian, 2011)

The prevalence of hepatitis B is heterogeneous all over the world. The prevalence of chronic infection is also categorised into high, intermediate and low endemicity. The age at the time of infection is associated with the endemicity of hepatitis B infection. The prevalence of hepatitis B infection among infants, children, teenagers and adults from 9 months to 40 years old in a rural area in Vietnam and found the prevalence to be highest in teenagers at about 20%, the adults by about 18.8% in children also 18.4% and the lowest in the age group is the infants with 12% prevalence, it was also discovered that the infection increase with age. A prevalence of 13.7-15.4% HBsAg carriers was also reported in Zimbabwe. Although, high prevalence of infectious HBV has been well recorded and documented worldwide in correctional facilities, such information on the actual prevalence of the disease has been unavailable in Africa. This could be due to the unstrategic collection of data and underreporting. From the few data made accessible, it has been estimated that there are 360 million global carriers of HBV, which 65 million are chronic carriers in Africa. An annual record of 1.3 million deaths has been due to HBV related causes which 250,000 comes from Africa (Ott, Stevens, Groeger, and Wiersma, 2012; Yang, Ding, Cui, Chen, and Yin, 2017)

Nigeria has been classified as an endemic zone for HBV but various studies carried out on its prevalence in Nigeria as this study targeted different segments of the population. A study was carried out in a Nigeria among sex workers and it was reported that 14.1% were HBV infected (Forbi, Onyemauwa, Gyar,er al, 2008;)

According to a data published from systematic review conducted on prevalence of Hepatitis B and C in 2016 by European Centres for Disease Prevention and Control (ECDC) in the European Union/ European Economic Area (EU/EEA), A full-text screening was done to

control and select the number of articles that was relevant to the study where a total of 125 articles were considered for inclusion: 48 on the general population, 32 on pregnant women, 32 on prisoners, and 13 on Men who have Sex with Men. In total, 211 prevalence data points were identified, ranging from 0 to 33 estimates per country. For HBV, estimates that were considered representative for the general population in the risk of bias assessment were available for 13 countries, where the prevalence ranged from 0.1% in Ireland to 4.4% in Romania (European Centre for Disease Prevention and Control, 2016).

High-quality estimates for HBV prevalence in pregnant women was estimated for seven countries; estimates from eligible studies for the HBV prevalence in MSM were available for four countries; estimates that were considered representative for prisoners were available for 11 countries and estimates that were considered representative for first-time blood donors was available for 30 countries (European Centre for Disease Prevention and Control, 2016).

The prevalence was reported to range from 0.1% in Norway and Spain to 0.8% in France and Italy for pregnant women, the prevalence in MSM ranged from 0.0% in Estonia and the United Kingdom to 1.4% in France, the prevalence in prisoners ranged from 0.3% in Ireland to 25.2% in Bulgaria and HBV prevalence among first-time blood donors ranged from 0.0% in Finland and Luxembourg to 3.2% in Bulgaria respectively (European Centre for Disease Prevention and Control, 2016).

According to a statistic released by the United State of American Centre for Disease Control and Prevention, approximately 1.2 million people in the United States have Hepatitis B while Blood transfusion-related HBV infection remains a major concern in transfusion practice. The high rate of the residual risk of transfusion-transmissible HBV reflects the global epidemiology of the virus. Considering the importance of the prevention of HBV transmission through blood transfusion, comprehensive HBV screening programs of blood donors have been implemented worldwide since the early 1970s (Song et.al 2010 and US Centre for Disease Control and Prevention, 2010). According to a five-year retrospective study of HBV sera markers conducted by Faisal et.al in Eastern Province of Saudi Arabia among Blood donors, it was reported in January 2018 through a publication that the five-year prevalence of Hepatitis B Virus (HBV) in Eastern Saudi Arabia among blood donors is 3.24% is lower than that reported for other regions in the country (Alzahrani, Shaikh, and Alomar, 2019).

According to a retrospective analysis done on sero-prevalence of Hepatitis B infection among blood donors in a secondary care hospital, Ghana by Osei, Lokpo and Agboli in 2014, it was reported in 2017 through a publication that a total of 576 blood donors were screened, out of which 520 (90%) were males and the rest females. The overall Sero-prevalence of hepatitis B virus was 7.5%. The prevalence was highest 8.9% among donors between 30 and 39 years old and among females 14.3%, A conclusion was reached based on their analysis that the females were about 2.5 times more likely to be HBsAg positive compared with males (Osei *et al.*, 2014). A similar study carried out in Sudan showed that Sudan had high HBV sero-prevalence where exposed population ranged from 47% to 78%. The prevalence of Hepatitis B surface antigen was 6.8% and 26% in central Sudan and South Sudan respectively (Elsheikh, Balla, Abdalla, Elgasim, Swareldahab, and Bashir, 2016).

Musa, *et al.,* (2015), conducted a study on prevalence of hepatitis B virus infection in Nigeria. They adopted the use of electronic databases to select systematic reviews and meta-analyses from 2000 to 2013 with which 46 studies were included (n = 34,376 persons). On the study, they claimed that estimates were generated using a random effects meta-analysis of cross-sectional and longitudinal studies to pool data for different categories and the country as a whole. The prevalence of HBV in Nigeria was reported to be 13.6%. The pooled prevalence among subgroups was: 14.0% for blood donors; 14.1% for pregnant women attending antenatal clinics; 11.5%for children; 14.0% among adults; and 16.0% for studies evaluating adults and children. They further ascertained that HBV prevalence in Nigeria varied by screening method, with 12.3% by using enzyme-linked immunosorbent assay; 17.5% by using immunochromatography; and 13.6% using by HBV DNA polymerase chain reaction. They concluded that HBV infection is hyper-endemic in Nigeria and may be the highest in Sub-Sahara Africa and their results further suggested that large numbers of pregnant women and children were exposed to HBV from year 2000 to 2013. Other National survey showed a similar results to the one discussed above and one of them was a study by Olayinka, Oyemakinde, Balogun, Ajudua, Nguku, *et al.,* (2016), across the six geopolitical regions where they reported the prevalence of hepatitis B infection in Nigeria to be 12.2% thereby depicting the level of hepatitis B endemicity in Nigeria (Musa *et al.*, 2015 and Olayinka *et al.*, 2016).

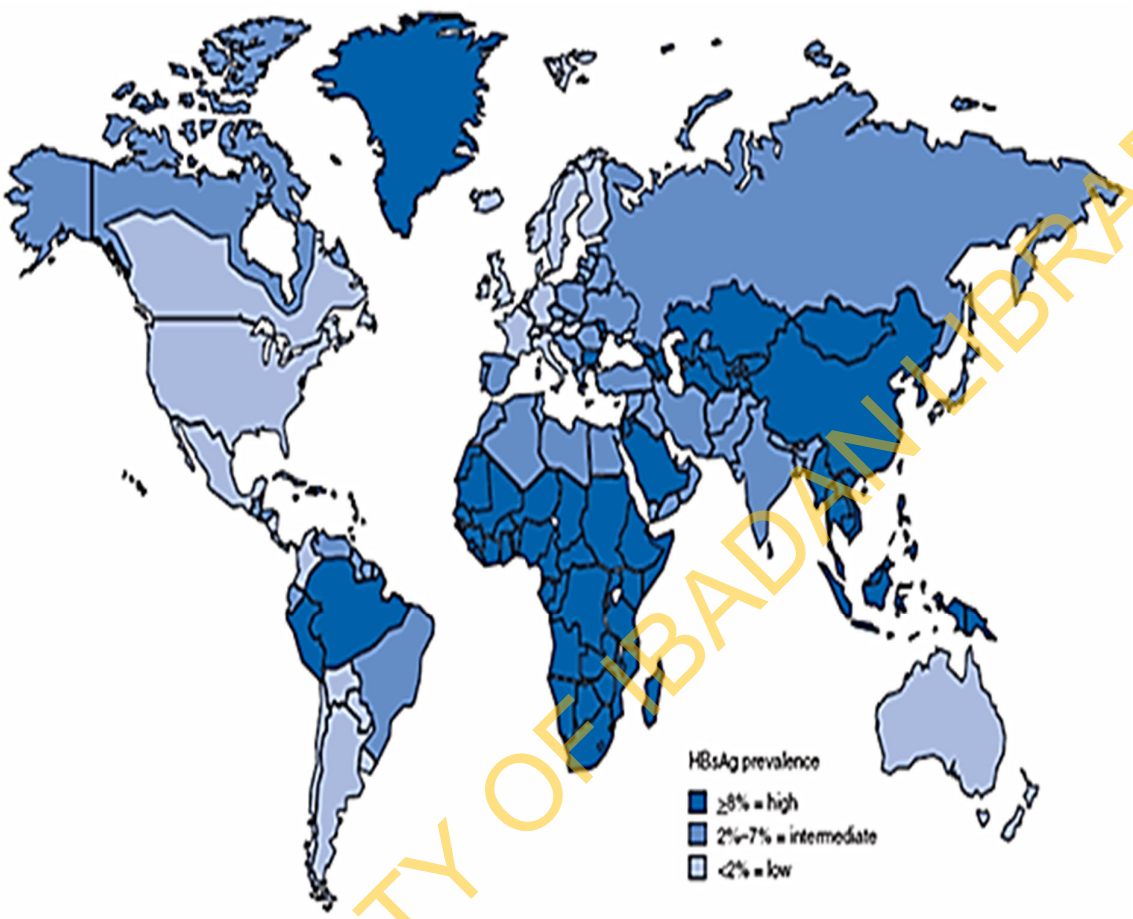


Fig. 2.2 Global Prevalence of Chronic Infection with HBV (CDC, 2010).

2.3.2 Endemicity of Hepatitis B

Endemicity of an infection or a disease talks about the prevalence of such infection or disease in certain regions of the world. It is mainly categorized in to three levels; high, intermediate and low endemicity (Hou, Liu, and Gu, 2005).

High Endemicity

In developing regions with large population such as South East Asia, China, sub-Saharan Africa and Amazon Basin, the prevalence of HBV is high where at least 8% of the population are HBV chronic carrier. In these regions, 70-95% of the population shows past or present serological evidence of hepatitis B infection. Most infections occur during infancy or childhood. Since most infections in children are asymptomatic, there is little evidence of acute disease related to HBV, but the rate of chronic liver disease and liver cancer in adults are high in areas of high endemicity, the most common route of transmission is perinatal or the infection is acquired during preschool years (Hou, Liu, and Gu, 2005).

Intermediate Endemicity

In part of Eastern and Southern Europe, the Middle East, Japan, and part of South America, hepatitis B is moderately endemic. 10-60% of the population have evidence of infection and 2-7% is chronic carriers. Acute disease related to HBV is common in these areas because many infections occur in adolescents and adults; however, the high rates of chronic infection are maintained mostly by infections occurring in infants and children. In these areas mixed patterns of transmission exist, including infant, early childhood and adult transmission (Hou, Liu, and Gu, 2005).

Low Endemicity

This is seen in most developed countries such as North America, Northern and Western Europe and Australia. In these regions, hepatitis B virus infects 5 -7% of the population, and only 0.5 - 2% of the population are chronic carriers. In these areas, most HBV infections occur in adolescents and young adults in relatively well-defined high-risk groups including injection drug users, homosexual males, and health care workers, patients who require regular blood transfusion or haemodialysis (Hou, Liu, and Gu, 2005),

2.4. Knowledge of Hepatitis B

According to a study conducted by Ahmed, Elsheikh, Balla, Abdalla, Ahmed and Abu in 2016 on knowledge, attitude and practice of Heath Care Workers (HCWs) regarding transmission and prevention of hepatitis b virus infection, White Nile State, Sudan, the knowledge of the HCWs was reported to be adequate and moderate especially the ones working in surgical-related department while those of labour wards, Laboratory technicians and other Para-medical staff were found to be poor. Therefore, intensive health awareness and education program about hepatitis B virus was recommended to target labours, laboratory technicians and other Para-medical staff in the hospitals (Elsheikh, Balla, Abdalla, Elgasim, Swareldahab, and Bashir, 2016).

Several studies all over the globe on knowledge of hepatitis B virus infection have found out that the level of knowledge is low even among health care workers. Also, the knowledge level differs according to occupation. Surgeons in Iran were found to under estimate the risk of sero conversion after exposure from patient infected with HBV (Kabir, Tabatabaei, Khaleghi, Kashani, *et al*., 2010). Also, in a study among United Kingdom among doctors and nurses found that the overall knowledge of risk of transmission of HBV from HBeAg positive patients to a non-immune was low. The nurses were found to have good knowledge as compared with the doctors. A Nigerian study also support that claim with an only 54% of health workers thoroughly understand the risks associated to their work in respect to HBV (Adekanle, *et al*., 2015)

UlHaq, Hassali, Shafie, Saleem, Farooqui, and Aljadheyin (2012), also assessed Knowledge in a cross-sectional studies where they looked at knowledge, attitude and practice towards HB among Pakistan Healthy population in 2012, they reported that participants tended to have poor practices toward HBV because of the poor knowledge of the nature and consequences of HBV infection, with only 19% of the participants responded to be aware that HBV can cause liver cancer. However, a larger percentage did not perceive themselves to be at risk of having HBV infection (UlHaq *et al.*, 2012).

A similar study in Egypt by Shalaby, Kabbash , El Saleet, Mansour, Omar, and El Nawawy in 2010 in Egypt on the other hand reported good knowledge of HBV among barbers and their clients which was proportionately related to their attitude and practices including adequate knowledge of precautionary measures and better vaccine uptake (Shalaby *et al*., 2010). In a similar study carried out in Malawi among Health Care Workers (HCW) on Knowledge and

Attitudes toward Hepatitis B Virus, and other similar viral infections, 199 Malawian HCW were recruited into the study, with their employment status analysed as follows: 41% support staff, 37.3% nursing students, and 21.6%professional healthcare providers (HCPs). They reported knowledge scores of HBV to be moderately adequate HBV and the mean scores on the HBV knowledge was 6.9 for HCPs; 4.5 for nursing students; 3.3 for support staff. It was also reported that some of these HCW responded with the option of "Do Not Know" ("DNK") more than expected with a range of 31%–48% of the total respondents. The reported was that extent of knowledge about HBV is limited among all groups, but especially among service staff (Mtengezo, Lee, Ngoma, Kim, Aronowitz, Demarco and Shi, 2016).

In a recent study by Mursy, and Mohamed, (2019), among nurses and midwives in Sudan, as stated in the conclusion of this study, most of the respondents were aware of HBV infection but they lack the knowledge about management when exposed to the infection. As seen in other studies about health care workers, most of the respondents are not vaccinated against hepatitis B virus. The incidence of needle prick was found to be high in this study which may imply poor preventive practices. The study also recommends that health seminars should be organized for health care workers on the topic of post exposure prophylaxis and encouragement to increase vaccination coverage. In another Study by Pham, Le, Nguyen, Luu, Truong, Tran, and So, (2019), in Vietnam, only very small percentage of respondents who had been expose to information on HBV could provide the right answers to most of the questions asked in this study, some still have the misconception that HBV could be transmitted by sharing food with infected fellow, by drinking contaminated water and even sneezing. Although they have a good knowledge of the HBV vaccine only a small percentage is also willing to get their babies vaccinated within 24 hours of birth.

A similar study that was conducted in Nigeria by Okonkwo, Ngim, Osim, Inyama, Kooffreh-Ada, Ndoma-Egba, Ezedinachi, in 2017 among traders reported a low knowledge score with only 44.2% of the traders reported having any knowledge of HBV. The median (interquartile range) of the overall KAP score was low (Okonkwo *et al.,* 2017).

A study conducted by Ahmad, Sann, and Rahman, (2016), discovered some factors that are associated with the level of knowledge of hepatitis. B among intonational students of University Putra Malaysia, these include; the level of study, faculty of study, nationality, age, marital status and gender of the respondents were significantly associated with their levels of knowledge. Females are more knowledgeable in this study with a significant proportion when

compared to the male many findings were used to back up this result. Also, students from the faculty of science are more knowledgeable than those from the faculty of arts and humanities. This could be associated with the curriculum of faculty of science to contain some health-related study of organisms. The level of study was another factor discovered in that study with PhD students having better knowledge than those of master students and the undergraduate students. The families with a previously diagnosed member of the family show more knowledge than those families who have not had a history of hepatitis B before. Those with previously diagnosed friends also show more knowledge than those whose friends had never been diagnosed (Ahmad *et al*, 2016). The level of knowledge seen globally among students could be as a result of the HIV-campaign which has mostly the same modes of transmission (Ahmad *et al*., 2016).

In some other studies, a low level of knowledge was recorded, in a study among women by Rahman and Mannan, (2010) show that very little percentage of the women in the study had a previous knowledge of mode of transmission of hepatitis B virus and the preventive practice like the use of condoms, sterile noodles, drug abuse and safe blood transfusion. Half of the women is that study have misconception on the mode of transmission of hepatitis B virus like faecal-oral route.

In a recent study in Nigeria by Eni, Soluade, Oshamika, Efekemo, Igwe, and Onile-ere, (2019), the respondents were found to have average knowledge of HBV, working respondents have a better knowledge than respondents than others in other groups. Respondents belonging to a public institution exhibits more risky behaviour majorly having multiple sexual partners. A lot of the students in the study were aware of the existence of HBV vaccine but only a few of them is vaccinated.

2.5. Sources of information of Hepatitis B

Source of information is the place, a thing or person where specific information is disseminated. Common sources of information include, print media; newspaper, magazine, journals etc., electronic media; internet, social media, radio, TV stations etc., Health workers, etc. There are several sources of information that can be responsible for the knowledge of HB among the respondent, it can be through media, medical staff, from friends, health brochures and leaflets as well as from the internet (Ganczak, Dmytrzyk-Damilów, Korzeń, Drozd-Dąbrowska and Szych, 2015). This was similar to a study conducted by Adoba, KyeiBoadu, Agbodzakey, Somuah, Ephraim and Odame in 2015 where the sources of Information on

knowledge of HBV was assessed among Barbers in Obuasi Municipality in Ghana, Radio was reported as the major source of information available to the respondent followed by Television, Healthcare workers, friends and relatives and Newspaper (Adoba, Boadu, Agbodzakey, Somuah, Kobina, Ephraim, and Odame, 2015).

The sources of information as identified by a study carried out among Asian Immigrants in 2013 were as follow; newspaper, physicians, internet and friends. It was identified that hearing of hepatitis B from physician had the greatest influence on the knowledge of the participants (Tanaka, Strong, Lee, and Juon, 2013). In another study by Thaver, and Kamal, (2010), television and parents constitute the highest percentage for the source of information in this study. Although only about half of the participants had a comprehensive knowledge of Hepatitis B hence, the study concluded that information gotten by parents or before television, should be scrutinized for authenticity before such information is disseminated.

In respect to factors responsible for knowledge of Hepatitis among HCWS reported in a study conducted by Ahmad et.al in 2016, it was reported that level of education, department where the respondent HCWs belong to, age, marital status, gender and duration of working hours were some of the socio-demographic characteristics that was tested m order to see their relationship with the knowledge of Health Care Workers about HBV. Their level of education plays a major role in the level of their knowledge, as it was reported that the senior HCWs possessed adequate knowledge than the junior ones. In respect to their departments, Laboratory technicians and Labour wards HCWs were having poor knowledge. The number of working hours also affected the level of knowledge as House officers have adequate knowledge while the consultants have moderate and poor. Inferably, the house officers have to stay back at work when their supervising consultants goes home to be called in case of emergency (Ahmad *et al*., 2016)

In a study discussed above, it was reported by Okonkwo et.al that the most common source for the knowledge was mass media and hospitals (television/radio (25%) and hospitals (22%) were the common sources of HBV knowledge available to the respondents, and it differs from reports from Pakistan by UlHaq e*t al.,* and Shalaby *et al.,* Egypt which showed that friends and relatives were the major sources of information concerning HBV. This may be explained by the high level of stigmatization associated with being HBV positive in our environment and as such persons with a positive status tend to hide it from friends and relations (Okonkwo *et al*., 2017).

2.6. Preventive Practices of Hepatitis B

Blood donors can have information on preventive practices (such has practising safe sex, doing a regular medical check-up to know about their HBV status and vaccination) that can protect and prevent them from contacting HB if their knowledge of HB risk factors and complications is good. However, this is subjected to other environmental and socio-ecological factors bothering on their lifestyles, level of education, income, occupation and their accessibility to health care services. This was related to a study conducted by Ahmed *et.al*. in 2016 among Healthcare workers whereby the Healthcare workers (HCWs) have good knowledge about the risk factors and complications of HB. It was also further reported that almost all HCWs were aware about the availability of protective measures in the hospitals and practicing sterilizing instruments, wearing gloves and screening donated blood. The majority of HCWs do nothing after suspicious of HBV infection (Ahmed et.al, 2016).

In a study carried out by Ogoina, Pondei and Adetunji (2014), among health care workers in a teaching hospital in Ile-Ife South West Nigeria, it was revealed that only 65% of the health workers have been vaccinated which is an aspect of preventive practices that can protect them against hepatitis B infection while majority of nurses and pharmacist were never screened for hepatitis B infection. In Sokoto 56.0% of HCWs received the recommended three doses of HBV vaccine as reported by Abiola *et al.*, (2016). This is high compared to only 32.6% of HCWs who received HBV in a cross-sectional study on prevalence of hepatitis B vaccination among health care workers in a teaching hospital in Jos (Ogoina, *et al.,* 2014; Abiola, *et al.*, 2016). HBV is the only sexually transmitted disease that can be prevented by vaccination. The prevention has become a top most priority for policy makers all over the world. The best prevention practice is use of effective and safe vaccine which had been available since 1982 through funding and implementation of HB immunisation programmes. Some conventional preventive measures are transfusion of save blood, practice of safe sexual contact etc. the strategies for prevention of Hepatitis B infection had been identified; active immunisation, passive immunoprophylaxis, and behavioural change (Komatsu, 2014).

Active Immunisation

This involves the intentional administration of safe and effective vaccine against HBV, which had been available for over two decades. In the U.S., HBV vaccine was introduced in 1982; in 1997 infant HBV vaccine was introduced in Vietnam. Birth dose of HBV vaccine can be given to a baby in the first 24hours of birth, it prevents up to 80% 90% of the virus transmission

between mother and child. HB vaccine is effective in preventing HBV infections when it is given either before exposure or shortly after exposure. HBV is a vaccine preventable disease, but although global control of hepatitis B virus is achievable, although it has not been attained yet. Prevention of primary infection is the major strategy to prevent HBV and this is achieved by vaccination (Van Damme, Lavanchy, Hendrickx, Lodewyckx, and Vorsters, 2016). The vaccine developed by Maurice Hilleman for the prevention of HBV is a viral envelope protein; the surface antigen of the virus. The original preparation of the vaccine was from the plasma of infected people but now it is being produced by recombinant DNA technology that does not contain blood product what so ever, hence one cannot be infected by taking the vaccine. After taken this vaccine, vaccine antigenemia may occur (Gerlich, 2013).

Hepatitis B vaccine is administered in two, three, or four-dose schedules into infants and adults. The protection offered by this vaccination has been observed to last up to about 12 years in an individual that show adequate initial response to the vaccine. The main transmission medium it blood unlike hepatitis A and hepatitis E that spread through water and food (Nelson, Easterbrook, and McMahon, 2016),

Passive Immunoprophylaxis

Passive immunity is a form of immunisation in which already prepared antibodies is giving to an individual usually as a post exposure prophylaxis. Hepatitis B Immune Globulin (HBIG) is a sterile solution of antibodies against hepatitis B that is used in passive immunisation against HBV. This form of immunisation is used in cases of new-borns of infected mothers, after sexual exposure, after needle stick exposure, and after liver transplantation. All children born to HBV positive mothers are recommended for the administration of HBIG. The effectiveness of HBIG is dependent on time of administration from the exposure time, 12hours of birth or exposure to HBV is recommended (Gerlich, 2013).

Behavioural Modification

Behavioural change is a change in an individual practice. As per HBV, change in sexual practice and improved screening measures of blood and blood products have reduced the risk of transfusion-associated hepatitis. Behavioural modification is more beneficial in developed countries than in developing countries where neonates and children in early childhood are at the risk of acquiring infection. In this group, immunoprophylaxis, both passive and active, will be more effective (Apata, Averhoff, Pitman, Bjork, Amin, and Marfin, 2014).

Screening of HBV

The diagnosis of HBV infection and its associated disease is based on a association of clinical, biochemical, histological, and serologic findings. The serological findings include a wide range of tests for HBV antigens and antibodies, using immunoassays based on enzyme reactivity (EIA) or chemiluminescence (CLIA) and ELISA. This focuses on the detection of the hepatitis B surface antigen HBsAg (Brunetto, Oliveri, Colombatto, Moriconi, Ciccorossi, Coco, and Cavallone, 2010).

Acute HBV infection is characterized by the presence of HBsAg and immunoglobulin M (IgM) antibody to the core antigen, HBcAg. During the initial phase of infection, patients are also seropositive for hepatitis B e antigen (HBeAg). HBeAg is usually a marker of high levels of replication of the virus. The presence of HBeAg indicates that the blood and body fluids of the infected individual are highly contagious (Prestes, Vieira, Isaac, and Portelinha, 2016).

Chronic infection is characterized by the persistence of HBsAg for at least 6 months (with or without concurrent HBeAg). Persistence of HBsAg is the principal marker of risk for developing chronic liver disease and liver cancer (hepatocellular carcinoma) later in life (Trépo, Chan, and Lok, 2014).

HBV DNA can be quantified in serum or plasma using real time polymerase chain reaction (PCR) assays. PCR tests have been developed to detect and measure the amount of HBV DNA, called the viral load, in clinical specimens. These tests are used to assess a person's infection status and to monitor treatment. Individuals with high viral loads, have ground glass hepatocytes when their biopsied samples are viewed (Kay and Zoulim, 2007).

The hepatitis B surface antigen (HBsAg) is most frequently used to screen for the presence of this infection. It is the first detectable viral antigen to appear during infection. However, early in an infection, this antigen may not be present and it may be undetectable later in the infection as It is being cleared by the host. The infectious virion contains an inner "core particle" enclosing viral genome. The icosahedral core particle is made of 180 or 240 copies of the core protein, alternatively known as hepatitis B core antigen, or HBcAg. During this 'window' in which the host remains infected but is successfully clearing the virus, IgM antibodies specific to the hepatitis B core antigen (*anti-HBclgM)* may be the only serological evidence of disease. Therefore, most hepatitis B diagnostic panels contain HBsAg and total anti-HBc (both IgM and IgG) (Zhang, Yin, Li, Ren, Gu, and Tan, 2008).

Shortly after the appearance of the HBsAg, another antigen called hepatitis B e antigen (HBeAg) will appear. Traditionally, the presence of HBeAg in a host's serum is associated with much higher rates of viral replication and enhanced infectivity; however, variants of the hepatitis B virus do not produce the 'e' antigen, so this rule does not always hold true. During the natural course of an infection, the HBeAg may be cleared, and antibodies to the 'e' antigen (*anti-HBe*) will arise immediately afterwards. This conversion is usually associated with a dramatic decline in viral replication (Chu and Liaw, 2007).

2.7. Blood Transfusion

Blood transfusion is an important concern for the society, as it is life saving for patients with accidents, bleeding disorders, surgeries, inherited/acquired haematological diseases and malignancies, due to acute or chronic haemorrhage. Voluntary, non-remunerated blood donors are the major source of a safe adequate supply of blood and blood components. Recruiting voluntary blood donors continues to be one of the major challenges for any blood transfusion. The numbers of potential donors were often reduced due to the selection criteria which were imposed to ensure the safety of the blood supplies. In addition to this, the blood centres find it difficult to recruit new donors and to retain them for arranging a regular blood supply for needy people. Consequently, the blood services need to organize more frequent blood drives to maintain a regular blood supply (Uma, Arun, Arumugam 2013). According to WHO, (2010), blood transfusion is life saving and an indispensable component of health care delivery. Millions of lives are saved every year in emergency and routine cases.

2.7.1 Types of Blood Donation

Homologous donation: involves collection of blood from an individual for transfusion into a compatible recipient. A whole blood donation which consists of erythrocytes, leukocytes and plasma is usually collected from this type of donor.

An autologous donation: in this type, the donor donates blood for his or her own use. The blood that was donated will be the same blood that would be transfused back into the donor.

Apheresis is a form of blood donation method where whole blood from the donor is passed through a machine which separates the blood into constituents; the needed constituent is removed while the remaining is returned back into the donor. Apheresis is often done on donors where whole blood is centrifuged to obtain individual components (e.g., RBCs,

platelets, plasma based on specific gravity) to use for transfusion in patients (Ahern, Schaer, Terkhorn, Jackson, Mason, and Hankenson, 2011).

2.7.2 Types of Blood Donor

Blood donor types are in 3 categories namely; Voluntary blood donors, Replacement donors, and Commercial donors (WHO, 2010).

Voluntary donor:

These are blood donors who give blood or blood product of their own free will and does not receive any payment form it, or anything that could be considered a substitute for money. They are also called non-remunerated blood donors. Refreshments and reimbursements of transportation costs are allowed with voluntary donors (WHO, 2010).

Replacement donors:

This category of donors gives blood when it is required by a family member or friend. The patient's relatives donate blood which serve as a replacement for blood to be given to their patient, some hospital policy makes it compulsory for every patient who requires transfusion to provide specific numbers of donor as replacement for an intending surgery. This type of donors is not paid by the blood transfusion service of the hospital (WHO, 2010).

Commercial donors:

This group of donors trade their blood for money payment or other benefits that satisfy a basic need or can be sold, converted to cash or transferred to another person. They may have contract with some blood banks and they give blood regularly for an agreed price. In most cases they have more than one blood bank to which they sell blood to and they use all sorts of drugs to bust their PCV (WHO, 2010).

2.7.3. Blood Donation Criteria

Blood donation criteria are set of rules guiding the recruitment of donors, aimed at ensuring that the most healthy donors that meet the criteria donates blood and this is to ensure a safe blood is gotten from the donors. This guide lines are also in place to ensure that donors are not harmed by blood donation process.

According to Quinn, Seed, Keller, Maher, and Hellard (2017), the following are the criteria for blood donation.

AGE: individual must be aged between 18 and 65. The elderly above 65 are believed to have just enough blood for themselves due to the deteriorating effect of old age.

WEIGHT: individual must weigh at least 50kg, anyone who has a weight lower than 50kg would not be allowed to donate blood regardless of their physical appearance.

HEALTH: individual must be in good health, which is deduced from the vitals mentioned above, blood pressure, PCV etc.

No individual should be allowed to donate if the individual has cold, flu, sore throat, stomach bug or any other individual,

No individual should be allowed to donate if he individual has a tattoo or body piercing.

No individual must donate if the haemoglobin level does not meet the minimum requirement which is usually 12mg/dL,

A test must be administered before donation, this test is majorly to identify if the donor is transfusion transmissible infections (TTIs); HBV, HCV, TP, etc free.

Individual must not have multiple sexual partners; this group of people are believed to be at risk of contracting one sexually transmitted infection or the other.

Breast feeding mothers must not donate because of blood loss during parturition, also that a breastfeeding mother is yet to recuperate from the several physiological changes that has occurred during pregnancy. (Quinn, Seed, Keller, Maher, and Hellard 2017, WHO, 2018)

2.8. Theoretical Framework: (The precede–proceed model)

Conceptual frame work is the representation of the link and associations between variables of interest. They are designed to give an instant visual relationship between causal linkages of the problem among concepts that are related to a specific health challenge.

The PRECEDE is an acronym that stands for predisposing, reinforcing and enabling constructs in educational environmental diagnosis and evaluation. This theory helps to understand the causal factors of any given public health behaviour. The three key concepts of this model are explained below:

The Predisposing factors: They are factors which motivate or provide a reason for behaviour; they include knowledge, attitudes, cultural beliefs, perceived needs and abilities and readiness to change.

The Enabling factors: These are what enable persons to act on their predispositions; these factors include available resources, accessibility, money, time, supportive policies, assistance, and services.

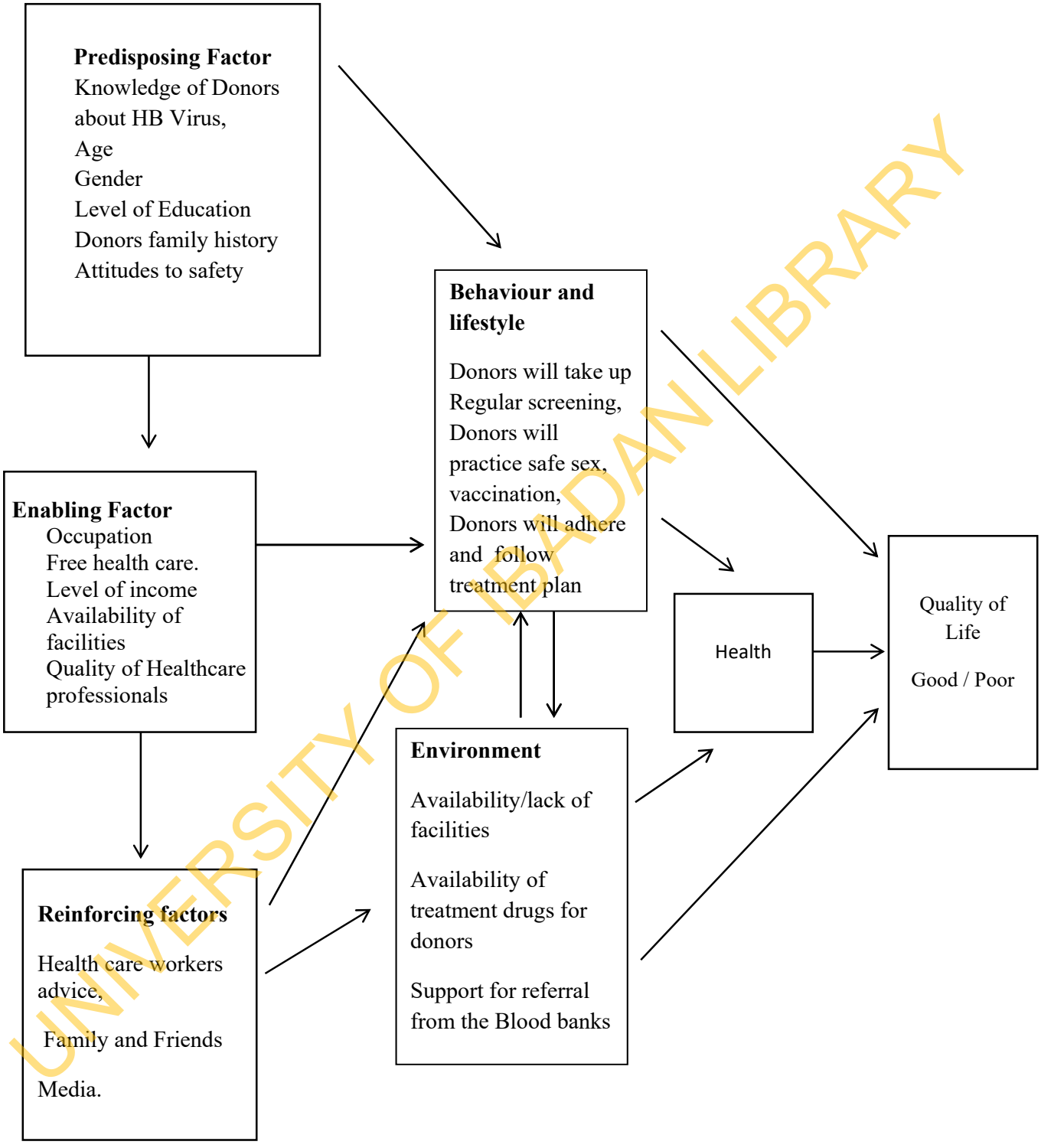
Reinforcing factors: This is which come into play after behaviour has been initiated. They encourage repetition or persistence of behaviors by providing continuing rewards or incentives e.g. Social support (family, peers), health care workers, law enforcement, and the media.

Application of the Model

Using the various constructs of model, it was applied to the current research as follows:

i. Predisposing factor: The various factors that can motivate the Blood donors to practice preventive measures against HB was assessed. This includes the gender, age, level of education and Blood Donors attitudes to safety
ii. Enabling factors: These are what enable the respondents to act on their predispositions. These include; occupation of the donors, health services that they access (National health insurance scheme) and free health care, accessibility to screening and vaccination.
iii. Reinforcing factor: They include what encourages the practices of preventive measures to be persistent and consistent among the respondents. They include the health care workers, Donors social support (family, peers) and the media.

Diagrammatic Representation of Theoretical Framework



Fg 2.3, Application of the PRECEDE Model (Green, and Kreuter, (1999).

CHAPTER THREE

METHODOLOGY

3.0. Introduction

In this section, research participants, sampling method, instruments, data collection procedures, management and analysis of data and ethical issues are described.

3.1. Study Design

This study is a descriptive cross-sectional survey using semi-structured questionnaires. A descriptive cross-sectional study design is the choice of study design when a study is aimed at describing a disease or condition and potentially related factors; knowledge, prevalence or preventive practices at a specific point in time for a well-defined population**.** Cross-sectional studies could also be described as that which gives a snapshot of the frequency and characteristics of a condition in a population at a particular point in time. Hence this study adopted descriptive cross-sectional survey as the study design.

3.2. Study Area

The study was carried out among blood donors in the Blood bank of the Haematology Department of the University College Hospital, Ibadan, which is located in Ibadan North Local Government area of Oyo State, Nigeria. University College Hospital, Ibadan is a federal teaching hospital attached to the University of Ibadan. Ibadan is located on latitude 7.3775^0 N and longitude 3.9470^0E and it is the capital of Oyo state in the southern part of Nigeria. The UCH has about 850 bed spaces and 163 examination couches with occupancy rate of about 55 – 60%. The UCH blood bank has hundreds of blood donors every month which makes it a good study site with more than enough study participant. Ibadan is predominantly made up of the people of the Yoruba tribe but urbanization and industrialization have brought in many other ethnic groups. Administratively, Oyo state is divided into 33 local government areas.

This research was conducted among blood donors coming in to donate blood in University College Hospital Ibadan, which is the first tertiary hospital in Nigeria and in Oyo State with the largest pool of blood donors with diverse socio-demographic characteristics will ensure that the results and recommendations from the study can be adopted by the other researchers in the state and the country as a whole.

3.3. Study Population

Consisted of all the blood donors found in the Haematology department, UCH, Ibadan during the period of this study.

3.4. Inclusion Criteria

All blood donors who visited the UCH that consented to participate in the study were included in the study.

3.5. Exclusion Criteria

This includes blood donors who did not consent to participate in the study.

3.6. Sample Size Determination

The sample size for this study was estimated using Leslie Kish formula for single proportion which is as follows;

$$n = \frac{Z^2pq}{d^2} \text{ (Leslie Kish Formula)}$$

Where:

n = sample size,

Z_α = standardized normal deviation which is a constant (1.96) at 95% confidence interval.

P = 14.5% = 0.145 prevalence of HBV among blood donors in Ibadan (Lawal, Bakarey and Uche, 2009).

Q = 1 – P (1 – 0.145) = 0.855; D = 0.05 at 95% confidence interval

$$n = \frac{Z^2pq}{d^2} = \frac{1.96^2 \times 0.145 \times 0.855}{0.05^2} = 191$$

A non-response rate of 10% of 191 = 19.1 approximately to 20

The minimum sample size is 211.

A total sample size of 252 was adopted for this study.

3.7. Sampling Technique

A purposive sampling technique was adopted for this study.

3.8. Instrument for Data Collection

A semi-structured interviewer administered questionnaire was used for data collection, it was designed to generate information in the different aspects of the objectives of the study, from respondents among the general population of blood donors visiting the blood donation centre in UCH by the researcher and two other trained research assistants. The questionnaire was divided into five sections which are:

- Section A: Socio-demographic characteristics of respondents
- Section B: Prevalence of HBV among blood donors
- Section C: Knowledge of HBV among respondents
- Section D: Sources of information on HBV among blood donors
- Section E: Preventive practices of HBV among respondents

The prevalence of the Hepatitis B Virus was gotten from two records (HBV Rapid Diagnostic Test and ELISA screening) from the Haematology Department of the University College Hospital, Ibadan.

3.9. Validity of the Instrument

The instrument was validated by my supervisor as well as some research experts in the Faculty of Public Health who helped to ascertain the quality of the instrument. In the design of the instrument, there was an extensive review of literature to ensure appropriate content and face validity. Variables in the theoretical framework are well represented in the instrument, to ensure construct validity. The corrections and suggestions improved the questionnaire draft to ensure relevance and adequacy of items in each subsection.

3.10. Reliability of the Instrument

To ensure that the drafted questionnaire will generate intended measurable data, it was field tested among 10% of the sample size, which was 25 blood donors in OAUTH Ile-Ife Osun State which has a similar socio-demographic characteristic with the study site. The retrieved field-tested questionnaire was subjected to Cronbach alpha analysis and a reliability coefficient

of 0.8 was obtained and considered to be reliable. The pre-test revealed some inadequacies which was used to improve the instrument before use in the main study.

3.11. Data Management and Analysis

Data collected was checked for completeness and accuracy. Copies of questionnaire was cleaned, sorted, and coded using a developed coding guide. Data was processed and analysed using Statistical Packages SPSS version 25. Every correct response for questions in section on knowledge of HB, Preventive practices of HB was scored 1 while wrong responses scored 0, Respondents' knowledge of HB was measured using an 18-point knowledge scale. Knowledge Score (KS) of ≤6 was rated as poor knowledge, KS of 7-12 was considered fair and KS >12 was rated as good knowledge. A 9-point scale was used for practices of preventive measures, where a score ≤4 represent poor practices and a score ≥5 represent good practices of preventive measures against Hepatitis B. Chi-square test and Fischer's Exact was used to test if there are significant differences between the categorical variables e.g knowledge of HB and preventive practices of HB.

3.12. Ethical Consideration

Ethical approval was obtained from UI/UCH Ethical review committee prior to the commencement of the study. The ethical approval bears a UI/UCH Ethic Committee assigned number: UI/EC/19/0342. The approval dates from 19/09/2019 to 18/09/2020. Informed consent was obtained from participants after providing them with information and benefits of the research. They were also assured that information provided by them will be kept confidential so as for them to be sincere with responses to be provided and that they are free to withdraw from the research if need arises. Only blood donors who give their voluntary consent were recruited into the study.

3.13. Limitation of the Study

Most of the blood donors are replacement donor (donating blood for a family or friend's use), their state of mind while participating in the study may affect their sincerity and quality of response generated from them.

CHAPTER FOUR

RESULTS

4.1 Socio Demographic Characteristics

There were two hundred and fifty-two respondents recruited for the study. Majority 215(85.3%) of the respondents were male and 37(14.7%) were female. Majority 105(41.7%) fell within the age range of 30 to 39 years with the mean age of 34.6±8.2, followed by 76(30.2%) with age range of 20 to 26 years, 60(23.8%), 10(4.0%) and 1(0.4%) of the respondents fall within the age ranges of 40 to 49 years, 50 to 59 years, and below 20 years respectively. Two-third 163(66.3%) were married, 84(34.1%) were single, and 1(0.4%) of the respondents was divorced. Also, two-third (64.7%) and one third (34.1%) of the respondents were Christians and of the Islamic faith respectively while one of the 3 others is an atheist while the other 2 are traditional worshiper. Majority (86.9%) were Yoruba as expected due to the study area selected, 13(5.2%) and 13(5.2%) were Igbo and Hausa respectively while 7 others belong to another ethnic group in Nigeria. Most of the respondents (67.1%) had highest level of the education to be tertiary education and 79(31.3%) and 4(1.6%) had secondary and primary respectively which means most are literate (Table 4.1a). Almost one-third 74(29.4%) were self-employed, 62(24.6%) work in the private sector, 27(10.7%) were students, 53(21.0%) were civil servant and 23(9.1%) and 2(0.8%) were artisan and unemployed respectively (Table 4.1b).

Table 4.1a Socio-Demographic Characteristics of Respondents (n= 252)

Socio-Demographic Characteristics	Frequency	Percent (%)
Sex		
Male	215	85.3
Female	37	14.7
Age		
Below 20 years	1	0.4
20 - 29 years	76	30.2
30 - 39 years	105	41.7
40 – 49 years	60	23.8
50 – 59 years	10	4.0
Marital Status		
Single	84	33.3
Married	167	66.3
Divorced	1	0.4
Religion		
Islam	86	34.1
Christianity	163	64.7
Traditional	3	1.2
Ethnic Group		
Yoruba	219	86.9
Igbo	13	5.2
Hausa	13	5.2
Others	7	2.8
Highest Level of education		
Primary	4	1.6
Secondary	79	31.3
Tertiary	169	67.1

Table 4.1b Occupation of Respondents (n= 252)

Socio-Demographic Characteristics	Frequency	Percent (%)
Occupation		
Civil Servant	53	21.0
Private Sector	62	24.6
Student	27	10.7
Self-Employed	74	29.4
Unemployed	2	0.8
Artisan	23	9.1
Others	11	4.4

4.2 Prevalence of Hepatitis B Virus among Blood Donors

Only one-fourth of the respondents (25.4%) knew their Hepatitis B status, 1 (0.4%) of the participants had a history of Hepatitis B in the past and 7(2.8%) had history of Hepatitis B virus in the family. However, 19.8% donates blood regularly which majority (81.3%) was replacement donor type and most (70.2%) had just donated blood once, also few (18.3%) voluntary blood donors and 1(0.4%) commercial donor was included in the study (Table 4.2a). The laboratory result revealed that one tenth (10.3%) of the respondents were Hepatitis B positive, just few (2.4%) were hepatitis C positive and only 2.0% were HIV positive (Table 4.2b).

Table 4.2a Prevalence of Hepatitis B Virus Among Blood Donors (n= 252)

	Frequency	Percent (%)
Hepatitis B Virus status		
I know my status	64	25.4
Don't Know	188	74.6
History of Hepatitis B Virus in the past		
I Have	1	0.4
Don't have	251	99.6
History of Hepatitis B Virus in your family		
There is	7	2.8
Don't have	245	97.2
I Donates blood regularly		
Yes	50	19.9
No	202	80.1
Donor type		
Voluntary	46	18.3
Replacement	205	81.3
Commercial	1	0.4
Number of blood donation in the past 2 years		
0 – 1	177	70.2
2 – 4	67	26.6
5 – 7	8	3.2

4.2b Laboratory Result from the Medical Laboratory Record (n=252)

	RDT n (%)	Elisa n (%)	Total n (%)
Hepatitis B Virus			
Positive	22 (8.7)	4 (1.6)	26 (10.3)
Negative	230 (92.3)	248 (98.4)	226(89.7)
Hepatitis C Virus			
Positive	0 (0.0)	6 (2.4)	6 (2.4)
Negative	252 (100)	246 (97.6)	246 (97.6)
HIV I and HIV II			
Positive	1 (0.4)	4 (1.6)	5 (2.0)
Negative	251 (99.6)	248 (98.4)	247 (98.0)

4.3 Knowledge on Hepatitis B virus

The mean knowledge score of respondents on hepatitis B was 6.1±4.1 on 18-point scale. Almost half (51.2%) of the respondents had poor knowledge, one–third (31.3%) had fair knowledge and 17.5% had good knowledge on Hepatitis B virus (Fig 4.1). one–third (33.7%) knew that hepatitis B is caused by virus while 66.3% do not know the causative organism. Most of the respondents knew the way of contracting Hepatitis B virus through unsafe sexual intercourse (49.6%) and sharing of sharp object (47.2.6%), transfusion of unsafe blood (32.9%), transmission during child birth (17.1%), tattooing and ear piercing (6.3%) and (5.6%) respectively and 38.5% do not know ways of contacting HBV. Many (44.0%) knew blood to be infection routes for Hepatitis B virus infection and 29.4% skin, while 4.4% knew that other body fluids can be infection route 36.9% do not know the infection route (Table 4.3a). Few knew health workers (15.1%), commercial sex workers (13.9%) and multiple sexual partners (13.5%) to be the most at-risk population of contracting Hepatitis B virus also 8.7% injection drug users and 6.3% men having sex with men (Table 4.3b). One-third (33.7%) knew it affects the liver and only few (9.1%) knew Hepatitis B can cause liver cancer. Also, more than one-third (41.3%) mentioned ways of preventing hepatitis B to be not by sharing personal belongings, safe sex practice (38.5%) and (35.3%) mentioned sterilization of sharp object before use and only 18.7% mentioned vaccination as a preventive measure while 38.9% do not know the preventive measures of HBV (Table 4.3a). Most mentioned sexual intercourse (48.8%) and sharing of sharp objects (48.8%), transfusion of unsafe blood (27.4%) and use of unsterilized equipment (25.8%) as ways in which Hepatitis B can be transmitted while 40.1 do not know how HBV can be transmitted (Table 4.3b). However, less than one-third (26.6%) knew about HBV vaccine which only few (9.9%) knew it takes 7 months to have a complete dose (Table 4.3c).

Table 4.3a Knowledge on Hepatitis B virus (n= 252)

	Frequency	Percent (%)
Hepatitis B causing organism		
Virus	85	33.7
Don't Know	167	66.3
Infection routes for Hepatitis B Virus infection*		
Blood	111	44.0
Skin	74	29.4
Other Body Fluids	11	4.4
Don't Know	93	36.9
Disease Hepatitis B virus can cause*		
Liver cancer	23	9.1
Liver Cirrhosis	15	6.0
Jaundice	10	4.0
Don't Know	219	86.9
Organ does the Hepatitis B virus affect in the body		
Liver	85	33.7
Don't know	167	66.3
Ways Hepatitis B Virus can be prevented*		
No sharing of personal belongings	104	41.3
Safe sex practice	97	38.5
Sterilization of sharp object before use	89	35.3
Transfusion of safe blood	51	20.2
Vaccination	47	18.7
Don't know	98	38.9
How to know Hepatitis B Virus status		
Carrying out blood test	123	48.8
Don't know	129	51.2

**** Multiple choice***

Table 4.3b Transmission of Hepatitis B Virus (n= 252)

	Frequency	Percent (%)
Ways in which Hepatitis B Virus can be transmitted*		
Sexual intercourse	123	48.8
Sharing of sharp objects	121	48.0
Transfusion of unsafe blood	69	27.4
Use of unsterilized equipment	65	25.8
Don't know	101	40.1
Ways of contracting Hepatitis B Virus*		
Unsafe sexual intercourse	125	49.6
Sharing of sharp object	119	47.2
Transfusion of unsafe blood	83	32.9
Transmission during child birth	43	17.1
Tattooing	16	6.3
Ear piercing	14	5.6
Don't know	97	38.5
Risk population of contracting Hepatitis B infection*		
Health workers	38	15.1
Commercial sex workers	35	13.9
Multiple sexual partners	34	13.5
Injection drug users	22	8.7
Men having sex with men	16	6.3
Don't Know	89	35.3

**** Multiple choices***

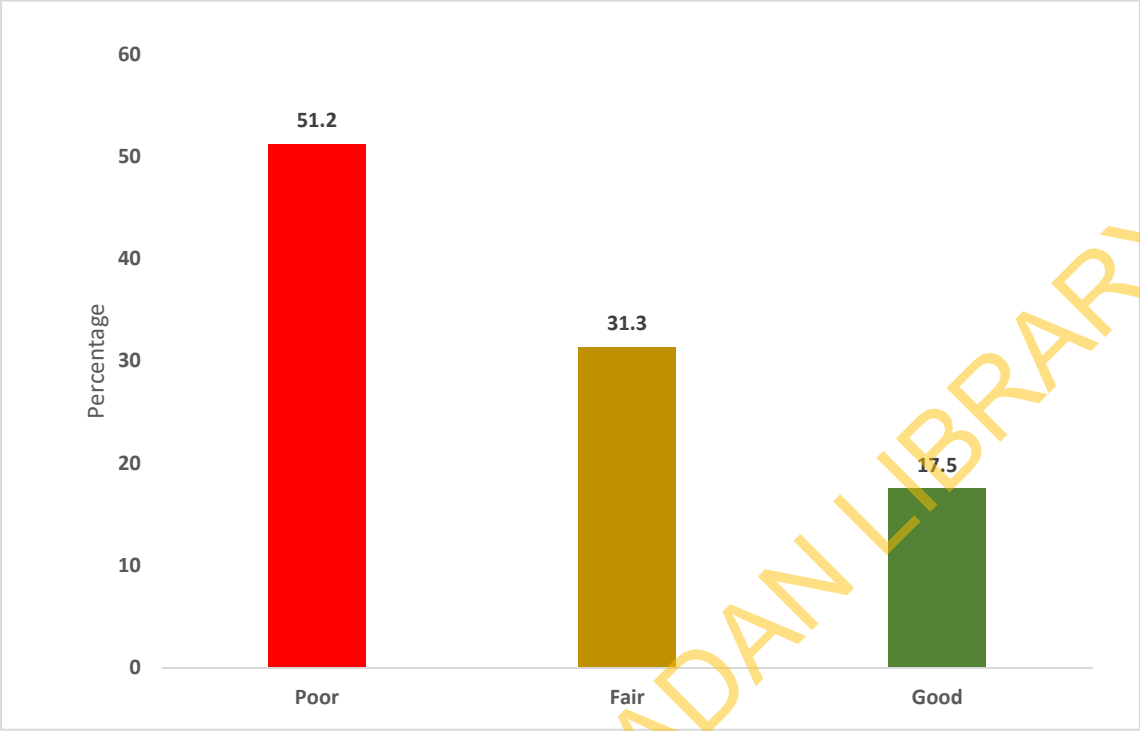


Fig 4.3. Level of knowledge of respondents on Hepatitis B

Table 4.3c Knowledge on Hepatitis B Vaccine (n= 252)

	Frequency	Percent (%)
Knows about HBV Vaccine		
Yes	67	26.6
No	185	93.4
Knows the months it takes to have a complete dose		
1 month	1	.4
5 months	3	1.2
7 months*	25	9.9
Dont know	223	88.5

**** Correct answer***

4.4 Source of Information

Many of the respondents (65.1%) have heard of Hepatitis B virus infection while 34.9% have not heard about Hepatitis B virus infection before. Almost half (30.6%) heard from health workers followed by family and friends (8.7%) while 7.5%, 7.5%, 5.6%, 3.2% and 2.0%, were informed from electronic media, community group, print media, internet and religious centres respectively while a whole lot 34.9% don't have a source of information. 48.4% agreed that their source of information have influence on their preventive practice while 14.3% of the participants does not have their preventive practice influenced by their source of information and 37.3% couldn't tell. One-third (34.1%) take information from health workers has their most reliable source of information while 24.2%, 14.3%, 12.7%, 6.7%, 4.4% and 3.6% preferred electronic media, internet, print media, family and friends, religious centres and community group as their source of information. However, 37.3% of the participants considered the information given to them not adequate and 25.8% considered the information to be adequate while 36.9% could not tell if their information is adequate or not (Table 4.4).

Table 4.4 Source of information on Hepatitis B virus (n= 252)

	Frequency	Percent (%)
Heard of Hepatitis B Virus infection (n= 252)		
Yes	164	65.1
No	88	34.9
Source of information (n= 252)		
Health workers	77	30.6
Family and Friends	22	8.7
Electronic Media	19	7.5
Community group	19	7.5
Print media	14	5.6
Internet	8	3.2
Religious centres	5	2.0
Don't have	88	34.9
Source of information have influence on preventive practice (n= 252)		
Yes	122	48.4
No	36	14.3
Don't know	94	37.3
Most preferred source of information (n= 252)		
Health workers	86	34.1
Electronic Media	61	24.2
Internet	36	14.3
Print media	32	12.7
Family and Friends	17	6.7
Religious centres	11	4.4
Community group	9	3.6
Information on Hepatitis B Virus is Adequate (n= 252)		
Yes	65	25.8
No	94	37.3
Don't have	93	36.9

4.5. Preventive Practices against Hepatitis B Virus

The mean practice score of respondents on hepatitis B preventive measures was 3.6±1.6 on 9-point scale where many (73.4%) had poor preventive practice (Fig.4.2). In the past six months, only about one-fifth had been screened for hepatitis B virus, only few (9.9%) were vaccinated against the virus, however majority (76.2%) recommended vaccination against Hepatitis B Virus among family members. Almost half of the respondents (45.2%) were aware of the risk of transmission of Hepatitis B Virus during blood transfusion and few (12.7%) adhere to intervals of Hepatitis B Virus vaccination, one tenth (10.3%) know that there is a first aid treatment in case of accidental exposure to Hepatitis B Virus. Only few (8.7%) engaged in unprotected sexual relationships, Majority (90.9%) usually ask barber /hairdresser to sterilize sharp objects before use and majority (89.7%) protect themselves from cut and injuries as a form of protection against Hepatitis B virus (Table 4.5).

Table 4.5. Preventive Practices Against Hepatitis B Virus (n= 252)

	Frequency	Percent (%)
Screened for Hepatitis B Virus in the past 6 months	46	18.3
Vaccinated against Hepatitis B Virus	25	9.9
Recommend vaccination against Hepatitis B Virus among family members	192	76.2
I reduce the risk of transmission of Hepatitis B Virus during blood transfusion	114	45.2
I adhere to intervals of Hepatitis B Virus vaccination	32	12.7
I can use first aid treatment in case of accidental exposure to Hepatitis B Virus	26	10.3
I Engage in unprotected sexual relationships	22	8.7
Usually ask barber /hairdresser to sterilize sharp objects before use	229	90.9
Protect myself from cut and injuries as a form of protection against Hepatitis B Virus	226	89.7

4.6 Hypothesis 1

"There is no significant association between socio-demographic characteristics of the respondents and knowledge of Hepatitis B"

Chi square analysis revealed that there was a statistically significant difference between the gender, level of education and occupation with a p-value < 0.004, <0.001 and <0.001 respectively, therefore we reject the null hypothesis. (Table 4.6)

4.7 Hypothesis 2

"There is no significant difference between socio-demographic characteristics and Hepatitis B preventive practices of respondents"

Chi square analysis revealed that there was a statistically significant difference with level of education and occupation with a p-0.035, 0.003 respectively, therefore we reject the null hypothesis. (Table 4.7)

4.8 Hypothesis 3

"There is no significant difference between respondent's level of knowledge and Hepatitis B preventive practices of respondents"

Chi Square analysis revealed that there was a statistically significant difference between respondent's level of knowledge of Hepatitis B and preventive practices with a p-value < 0.001. Thus, we reject the null hypothesis (Table 4.8).

Table 4.6: Respondents' Socio-demographic characteristics and knowledge of Hepatitis B virus infection

Variables	Knowledge Score Category			Df	X^2	p-value
	Poor	Fair	Good			
Gender						
Male	110(44.2)	74(29.4)	31(12.3)	2	12.160	0.002 **
Female	19(7.5)	5(2.0)	13(5.2)			
Age Group *						
Below 20 years	0(0.0)	0(0.0)	1(0.4)			
20 - 29 years	39(15.5)	25(9.9)	12(4.8)			
30 - 39 years	49(19.4)	35(13.9)	21(8.3)	8	7.816	0.434
40 – 49 years	35(13.9)	15(6.0)	10(4.0)			
50 – 59 years	6(2.4)	4(1.6)	0(0.0)			
Marital status*						
Single	42(16.7)	25(9.9)	17(6.7)			
Married	86(34.1)	54(21.4)	27(10.7)	4	1.956	0.848
Divorced	1(0.4)	0(0.0)	0(0.0)			
Highest Level of Education*						
Primary	3(1.2)	1(0.4)	0(0.0)			
Secondary	58(23.0)	18(7.1)	3(1.2)	4	29.834	<0.001
Tertiary	68(27.0)	60(23.8)	41(16.3)			
Occupation*						
Civil Servant	12(4.8)	25(9.9)	16(6.3)			
Private Sector	31(12.3)	18(7.1)	13(5.2)			
Student	11(4.4)	7(2.8)	9(3.6)			
Self-Employed	48(19.0)	23(9.1)	3(1.2)	12	46.300	<0.001
Unemployed	1(0.4)	0(0.0)	1(0.4)			
Artisan	16(6.3)	6(2.4)	1(0.4)			
Others	10(4.0)	0(0.0)	1(0.4)			

** Fischer Exact*

*** Statistically Significance*

Table 4.7: Respondents' Socio-demographic characteristics and Hepatitis B preventive practices"

Variables	Preventive Practice Score Category		Df	X^2	p-value
	Poor (%)	**Good (%)**			
Gender					
Male	162(64.3)	53(21.0)	1	2.812	0.094
Female	23(9.1)	14(5.6)			
Age Group *					
Below 20 years	0(0.0)	1(0.4)	4	4.562	0.325
20 - 29 years	60(23.8)	16(6.3)			
30 - 39 years	73(29.0)	32(12.7)			
40 – 49 years	44(17.5)	16(6.3)			
50 – 59 years	8(3.2)	2(0.8)			
Marital status*					
Single	64(25.4)	20(7.9)			
Married	120(47.6)	47(18.7)	2	0.931	0.667
Divorced	1(0.4)	0(0.0)			
Highest Level of education*					
Primary	4(1.6)	0(0.0)			
Secondary	65(25.8)	14(5.6)	2	6.070	0.035**
Tertiary	116(46.0)	53(21.0)			
Occupation*					
Civil Servant	29(11.5)	24(9.5)	6	18.886	0.003**
Private Sector	46(18.3)	16(6.3)			
Student	19(7.5)	8(3.2)			
Self-Employed	58(23.0)	16(6.3)			
Unemployed	1(0.4)	1(0.4)			
Artisan	21(8.3)	2(0.8)			
Others	11(4.4)	0(0.0)			

**** Fischer Exact***

***** Statistically Significance***

Table 4.8 Association between respondent's level of knowledge of Hepatitis B and preventive practices

Variables	Practice Score Category		Df	X^2	p-value
	Poor	**Good**			
Poor	124(49.2%)	5(2.0%)	2	78.278	0.000**
Fair	46(18.3%)	33(13.1%)			
Good	15(6.0%)	29(11.5%)			

***** Statistically Significant***

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

Majority of the participants of this study were male. This may be due to the fact that blood donation criteria widely exclude most women, pregnant women, women who are breast feeding, those menstruating etc. This result is quite similar to that of Agbesor, Amala, and Jeremiah (2018) where 96.1% were male and also studies conducted by Osei, Lokpo and Agboli (2014), and Gowda, and Arun, (2014), with 90% and 99.36% male respectively. The mean age of respondents was 34.6± 8.2 with majority (41.7%) being within the age range of 30 to 39 with a few being 20 years and below. A large number of the respondents had tertiary education. This implies that most were literate. This result is similar to the findings of Adeyemi, Enabor, Ugwu, Bello, and Olayemi, (2013) where majority of the respondents in tertiary centres have a tertiary education. The level of education of respondent (blood donors) has not been focused on in previous studies on HBV.

The prevalence of Hepatitis B virus is 10.3% in this study which is similar to the result obtained by Emechebe**,** Emodi**,** Ikefuna**,** Ilechukwu**,** Igwe**,** and Ejiofor, (2009), in the review of the prevalence of HBV in Nigeria with a mean prevalence of 10.7%. Prevalence of HBV has been defined as such that a prevalence of >8% is high, 2-7% is intermediate and <2% to be low prevalence, as seen in this study, the prevalence of HBV is still high. In another systemic review by Musa *et al.,* (2015) from 2000 – 2013 in Nigeria, a prevalence of 13.6% was obtained. Also in a national survey conducted by Olayinka, Oyemakinde *et al,* (2016), 12.2% prevalence was recorded; a 10.4% was recorded in Gombe by Mustapha and Jibrin (2004). Among pregnant women in southwest Nigeria, a little lower result (8.3%) which is still on the high prevalence margin was obtained by Anaedobe, Fowotade, Omoruyi, and Bakare (2015). All these result points also make it more visible that, infectious diseases are still not near a significant total reduction level when compared with developed countries.

Majority of the respondents 74.6% do not know their HBV status which is a similar case with a study carried out by Adekanle, Ndububa, Olowookere, Ijarotimi, and Ijadunola, (2015), this pattern of result was also observed by Abiola, Agunbiade, Badmos, Lesi, Lawal, and Alli, (2016). This may be as result of the general attitude health where not until one is down with sickness, no hospital.

It was evident that the respondents of this study had very poor knowledge of Hepatitis B virus. This finding is similar to results obtained by Adeyemi, Enabor, Ugwu, Bello, and Olayemi, (2013) among pregnant women in Ibadan; which is the same study site for this study, where the pregnant women were described to have inadequate knowledge of HBV and another study in Ghana by Abdulai, Baiden, Adjei, and Owusu-Agyei, (2016), where the pregnant women were found to have low knowledge of HBV. In a similar study by Boutayeb, Aamoum, and Benchemsi, (2006), Bala, Suchet, (2019), the donors were found to have a fair knowledge of HBV; these are not in Nigeria but, Casablanca and North India respectively.
In another study by Aniaku, Amedonu, and Fusheini, (2019), the participants of the study had a good knowledge of HBV probably because they were student nurses in another study by Oyewusi, Olanlawon and Ndikom (2015) and Emeka, Uwakwe, Irekpita, Dongo, and Kefas, (2011), a similar result of good knowledge was recorded. These good knowledge reports were all among health workers. The general trend in the knowledge of HBV among the people is between poor and fair.

Information from health workers is the leading source of information which is complementary to the findings of Hang Pham, Le, Nguyen, Luu, Truong, Tran, and So, (2019), in a similar study among pregnant women, and contrary to the observation of Abdulai, Baiden, Adjei, and Owusu-Agyei, (2016) and Paudel, Prajapati, Paneru, and Damaru (2012), whose main source of information is on the radio and radio/television respectively. Most of the respondents also state Health workers as their most preferred source of information some others stated that they would prefer electronic media such as radio, television as their source of information only a few of the respondent would prefer the internet which is understandable that unless they are willing to read journals information on social media may not be so adequate and correct. This may be due to the fact that a one on one encounter and teaching sticks better.

In a study conducted among Asian immigrants in the US with a similar result with this study, it was observed that the most common source of information is the newspaper followed by Physician Tanaka, Strong, Lee, and Juon, (2013), this indicates that there is a quota to be contributed by health workers in the spread of information by health workers internationally.

Although most of the respondents agreed that their source of information influence their preventive practices and also that the information, they have on Hepatitis B virus is not adequate which may be due to the Health seeking behaviour of the participants.

Preventive practices against HBV includes; vaccination, no sharing of sharp objects and personal objects (e.g. tooth brush), sterilization of sharp objects, safe sex practice, transfusion of safe blood, etc. this study found that four out of every five persons have not screened for HBV in the past six months, majority of the participants have also not been vaccinated against HBV. From the findings of this study, the respondents were found to have poor preventive practice against Hepatitis B virus. This claim could also be backed up by the study conducted by Paudel, Prajapati, and Paneru, (2012), with a conclusion that only about two-third of the respondents (nurses) have a good preventive practice against HBV. In the research conducted by Emeka, uwakwe, and Irekpita (2011), among Operating room personnel, it was discovered that even with high level of knowledge about the HBV vaccine, yet most of these workers are not vaccinated. If we could not have a good response to the preventive practices against HBV among Knowledgeable People, what can we say about those that have not heard about HBV at all?

Hypothesis 1 states that there is no significant association between socio-demographic characteristics of the respondents and Knowledge of Hepatitis B, it was discovered in this study that there was a Significant difference between the gender, level of education and occupation. This implies that these 3 sociodemographic characteristics have a significant association with the level of knowledge of the respondents. This could be seen in a similar study by Ahmad *et al*., (2016).

Hypothesis 2 states that there is no significant difference between socio-demographic characteristics and preventive practice of respondents. This study shows that there was a statistically significant difference eith level of education and occupation of the respondent. A similar result was obtained by Mursy, and Mohamed, (2019), also in a study by Pham, Le, Nguyen, Luu, Truong, Tran, and So, (2019), in Vietnam.

Hypothesis 3 states that there is no significant difference between respondent's level of knowledge and Hepatitis B virus preventive practices. There was a statistically significant difference between respondent's level of knowledge and preventive practices. The level of knowledge of respondents is low in this study and the preventive practice is also poor. The result obtained from this study is consistent with that of Rajamoorthy, Munusamy, Anwar, Wagner, Mudatsir, and Khin, (2019), among households in Malaysia.

5.2 Conclusion

This study set out to investigate the Prevalence, Knowledge and Preventive Practices of Hepatitis B among blood donors at the University College Hospital, Ibadan. The prevalence from this study coupled with other studies reviewed make it better glaring that Nigeria is HBV endemic. The prevalence of hepatitis B was found to be high in this study. With 10.3% prevalence, the endemicity could not be group under low or intermediate, hence the conclusion that Nigeria is HBV endemic. Findings from this study also showed that the majority of the respondents had poor knowledge on hepatitis B virus, about two fifth of the respondents don't know how HBV can be transmitted. The participants of this study also have poor preventive practice to wards hepatitis B virus; only few of the respondents knew their status and are vaccinated against HBV. This study also showed that the prevalence of Hepatitis B infection is high when compared to other TTIs such as HIV, or HCV.

5.3 Recommendations

There is need to educate blood donors in university college hospital and the general populace on Hepatitis B virus. The advantages of prevention which is cheaper and better than treatment and several screenings which cost a fortune should be emphasized in any HBV awareness programmes. Campaigns on every media platform on Hepatitis B virus should be sponsored as this should increase the level of awareness. As shown in the study, health workers are the most common source and the most preferred source of information, Health workers should be informed well enough to give information that is adequate to the populace. Screening and vaccination centres should be established in every local government across the federation and should be free or subsidised considerably. Religious groups, Non-governmental organisations should be involved in educating the public on HBV, as seen in this study, religious centres and community group account for 24% of the source of information. Proper follow up of individual who are HBV positive to ensure they go for further screening and complete treatment and also educate them on ways to stop the spreading of the infection.

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APPENDICES

Appendix 1

INFORMED CONSENT FORM

Title of the research

Prevalence, Knowledge and Preventive Practices of Hepatitis B among Blood Donors at University College Hospital Ibadan.

Name and affiliation of researchers of applicant

This study is to be conducted by Mrs. Oluremi Olubukola, a postgraduate student, Department of Health Promotion and Education, Faculty of Public, College of Medicine, University of Ibadan

Sponsors of Research Self-sponsored.

Purpose of the Study

The purpose of this research is to assess the prevalence, the level of knowledge and preventive practices and source of information of hepatitis B among blood donors.

Procedures of the Research, What shall be required of each Participant and the approximate total number of participants that would be involved in the research

A total number of two hundred and fifty two (252) study participants will be recruited in the study. A simple random sampling technique will be adopted for the study. Interviewer-administered questionnaire and laboratory record will be used as the instrument for data collection. The data will be collected by the researcher with the help of two research assistants who will be trained prior to the time of data collection. Both the benefits and the possible harms that may arise as a result of participating in the study will be explained to the research participants. The informed consent forms will be distributed to the potential participants after they would have been given adequate information about the study. Then, after the questionnaires have been filled, the researcher will check for completeness and errors before leaving the field.

The questionnaires will be translated to Yoruba language for easy understanding by the study participants who cannot read English within the University College Hospital, Ibadan and also to ensure that the content and the questions in the instruments are well understood by the study participants.

Expected Duration of the Study

You are expected to spend a maximum of 15-20 minutes for the collection of data. The overall expected duration of the research is 6-8weeks

Risk(s):

There is no potential risk involved in participating in this study.

Costs to participants, if any or joining the research:

Your participation in this research will not cost you anything.

Benefit(s):

The goal of this research is to find out the prevalence, knowledge and preventive practices of hepatitis B among blood donors. This will assist in targeting public health efforts to reduce complications and hepatitis B transmission through blood transfusion.

Confidentiality

All information collected in this study will be given code numbers and no name will be recorded. This cannot be linked to you in any way and your name or any identifier will not be used in any publication or reports from this study. The nature of the study, benefits and objectives will be explained to the respondents and they will be assured that the information given would be treated with utmost confidentiality. Respondents will also be intimated about the opportunity to withdraw their consent freely at any point during the study. Confidentiality of each participant will be maximally maintained during and after the collection of their information. Information gathered from the respondents will be stored in the computer for analysis by the researcher while copies of the filled instruments will be kept for maximum safety.

Voluntariness

Your participation in this study is entirely voluntary.

Alternative to Participation

If you choose not to participate, this will not affect your treatment in this hospital in any way

Due Inducement

You will not be paid any fees for participating in this research. Any loss of wages as a result of your participation in this research will be compensated.

Consequences of Participant's decision to withdraw from research and procedure for orderly termination of participation

You can also choose to withdraw from the research at any time. Please note that some of the information that has been obtained about you before you choose to withdraw may have been modified or used in reports and publications. These cannot be removed anymore. However the researchers promise to make effort in good faith to comply with your wishes as much as is possible.

What happens to research participants and communities when the research is over?

The researcher will inform you of the outcome of the research through a news bulletin. During the course of this research, you will be informed about any information that may affect your continued participation or your health.

Statement about sharing of benefits among researchers and whether this includes or exclude research participants

There will be no material benefits from the research to the participants

Any apparent or potential conflict of interest

There is no information or association that may cause the researchers not to do their work with fear or favour

Statement of person obtaining informed consent

I have fully explained this research to……..... and having giving sufficient information, including about risks and benefits to make an informed decision.

DATE…….. SIGNATURE…….

NAME……

Statement of person giving Consent

I have read and the description of the research has it translated into the language I understand. I have also discussed with the doctor to my satisfaction. I understand that my participation is voluntary. I know enough about the purpose, methods risks and benefits of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional information sheet to keep for myself.

DATE…… SIGNATURE…….....

NAME……..

WITNESS SIGNATURE (If applicable)…….

WITNESS NAME (If applicable)……

Detailed contact information including contact address, telephone, fax, email and any other contact information of research(s), institutional HREC and head of the institution.

This research has been approved by the Ethics Committee of the University of Ibadan and the chairman of this committee can be contacted at Biode Buildong, Room 210, 2nd Floor, Institute for Advanced Medical Research and Training, College of Medicine, University of Ibadan, E-mail:uiuchirec@yahoo.comanduiuchec@gmail.com .

In addition, if you have any question about your participation in this research, you can contact the principal investigator

Name: Oluremi, Olubukola Opeyemi Email: olubukolaoluremi@gmail.com

Phone: 08030732980, 08023207590

Department: Health Promotion and Education, Faculty of Public, College of Medicine, University of Ibadan

PLEASE KEEP A COPY OF THE SIGNED INFORMED CONSENT

YORUBA VERSION

IWE IFITONILETI ATI FIFARAMO LATI KOPA NINU IWADI FUN AWON OLUFEJESILE

Akọle Iwadii Naa: ITANKALẸ, ÌMÒ ATI ÌSESÍ TÍ Ó LE DÈNÀ ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) LAARIN AWỌN OLUFẸJẸSILE NI ILE-IWOSAN YUNIFÀSITÌ TÍ ILẸ IBÁDÁN, IPINLẸ OYO ORILEDE NAIJIRIYA.

Orukọ ati Ohunidanimọ Oluwadi

Iyaafin Oluremi Olubukola, ni oluwadii yii, o jẹ akẹ́ẹ́kọ́ làtí ile ìwé giga Yunifàsitì tí Ilẹ Ibádán ni ẹka tí àtí n risi eto nípa idanilẹkọọ ati igbega eto ilera, ti o wan i Kolẹẹji tí ati n se itọju pélu oogun, ni abala tí ohun risi eto ilera àwọn ara ilu

Awọn Onigbọwọ Iwadi

Oluwadi naa ni onigbọwọ ara rẹ.

Idi ti a fi ńse Iwadii Naa

Mo nse iwadi lori itakanlẹ, ìmò ati ìsesí tí ó le dènà ààrùn Hepataitis b laarin awọn olufẹjẹsile ni ile-iwosan Yunifàsitì tí ilẹ Ibádán, Ipinlẹ Oyo Orilede Naijiriya.

Awọn ilana ti Iwadi yi o tẹle, Kini ohun ti o yẹ fun Olukopa kọọkan ati odinwọn ohunka iye awọn olukopa ti yoo kopa ninu iwadii naa

Olukopa igba ati meji l'adota (252) ni yio kopa ninu iwadii yii. Ọna asayan ayẹwo ti o rọrun kan ni ao lo lati muu olukopa fun iwadi naa. Ibeere bi ifọrọwanilẹnuwo ati akọsilẹ lati yàrá ayẹwo ni ao lolati se iwadii yii. Oluwadi yoo gba ọrọ silẹ pẹlu iranlọwọ awọn oluranlọwọ oluwadii meji ti yoo ao se idanilẹkọ fuun ṣaaju gbigba ọrọ silẹ. Awọn anfani ati awọn ipalara ti o ṣeeṣe ki o jẹ yọ nibi kikopa ninu iwadi yi ni ao ṣe ni alaye fun awọn olukopa ninu iwadi naa. A o fun wọn ni awọn fọọmu ipinnu ifitonileti lẹhin ti wọn ba gba lati kopa, lati fun wọn ni alaye pipe nipa iwadi naa. Lẹhinna, oluwadii yi o yẹ awọn iwe ibeere ti wọn ti dahunsi lati ṣayẹwo fun pipe ati awọn aṣiṣe ṣaaju ki o to kuro ni ọdọ awọn olukopa.

Akoko ti a da laba fun Iwadi naa

Akoko ti a da laba fun Iwadi naa ko gbọdọ ju iṣẹju meedogun si oogun fun didahun ibeere eyọkan. Iye akoko ti anireti fun gbogbogbo ti iwadi jẹ osẹ mefa si mẹjọ

Awọn Ewu:

Ko si eewu ti o kankan la ti ibi kikopa ninu iwadi yii.

Awọn Inawo ti o wa nibi kikopa, ti eyikeyi tabi fun didarapọ mọ iwadi naa:

Iwadii yii ko ni na yin ni owo kankan

Awọn Anfani:

Erongba ti iwadii yii ni lati nse iwadi lori itakanlẹ, ìmò ati ìsesí tí ó le dènà ààrùn Hepataitis b laarin awọn olufẹjẹsile. Eyi yoo ṣe iranlọwọ ni idojukọ awọn ipa ti awọn eleto ilera gbogbogbo nko lati dinku awọn ikọlu ati itankalẹ ààrùn ẹdo wiwu B nipasẹ gbigba ẹjẹ.

Ifọrọpamọ ati Ibo Asiri Olukopa

Gbogbo alaye ti a ba gba ninu iwadi yii ni a o fun ni awọn ohunka idanimọ ti ko si ni oruko olukopa ninu ọrọ ti a ba gbasilẹ. Eyi ko le satọka si yin ni eyikeyi ọna ati wipe ao ni lo oruko yin tabi aami idanimọ ninu eyikeyi atẹjade tabi awọn ijabọ lati inu iwadi yii. Iseda iwadii, awọn anfani ati awọn ipinnu ti o wa ninu iwadi yi ni ao se lalaye fun awọn olukọ ati pe wọn yoo ni idaniloju pe alaye ti wọn fun wa yi o wa ni ipamọ. Awọn olukopa yi o ni imọ kikun nipa anfani lati yera kuro ninu iwadi yii lakoko kakooko nigba ti iwadii ba ń lọ lọwọ. Ifọrọpamọ ati ibo asiri olukopa yi o jẹ ohun amugbọ ni akoko iwadii ati lẹyin iwadii yii, ao si fi awọn esi ọrọ ti a ba gba lati ẹnu awọn olukopa pamọ sinu ẹrọ Konputa fun aabo to peye.

Ikopa Atinuwa

Ilowosi rẹ ninu iwadi yii jẹ atinuwa patapata.

Sisayan lori Ikopa

Ti o ba yan lati kopa, eyi ko nii ohun kohun see pẹlu itọju rẹ ni ile-iwosan yii ni eyikeyi ọna

Ẹbun ti o tọsi Olukopa

Iwọ ko ni gba owo eyikeyi fun kikopa ninu iwadi yii. Eyikeyi awọn owo ọya yin ti ẹ ba padanu lakoko ikopa yin ninu iwadi yii yio di sisan pada.

Awọn Abajade ti Ipinnu Olukopa lati yera kuro ninu Iwadii Ati Ilana Fun Ifopinsi Eto Kikopa

Ẹ lee yẹra kuro ninu iwadi naa nigbakugba. Ẹ jọwọ ṣe akiyesi pe diẹ ninu alaye ti a ti gba nipa yin ṣaaju ki o to yan lati yẹra kuro le ti yipada tabi lo ninu awọn ijabọ ati awọn atẹjade. Awọn wọnyi ko le see yọkuro mọ. Sibẹsibẹ awọn oniwadi ṣe ileri lati ṣa ipa ni igbagbọ lati se ohunkohun ti ẹ bafẹ.

Kini yoo ṣẹlẹ si awọn Olukopa ati awọn agbegbe ti a ti se iwadii nigbati iwadi ba pari?

Oniwadi naa yoo sọ fun yin nipa abajade iwadii naa nipasẹ iwe iroyin. Lakoko iwadi yii, ao sọ fun yin nipa eyikeyi alaye ti o le ni ipa lori kikopa yin lọwọ tabi ilera yin.

Gbólóhùn nipa pinpin awọn anfani laarin awọn oniwadi ati boya eyi kan awọn olukopa iwadi

Ko si awọn anfani kankan lati ọdọ oluwadi si awọn olukopa

Eyikeyi Ifarahan tabi Rogbodiyan Pẹlu ero Oluwadi

Ko si alaye tabi ajọṣepọ ti o le fa ki awọn oluwadi ko ṣe iṣẹ wọn pẹlu iberu tabi oju-rere

Gbólóhùn Eniyan ti o ń gba Iwe Ifitonileti ati Fifaramo lati Kopa ninu Iwadi

Mo ti ṣalaye iwadi yii ni kikun fun …… ..... ati wipe mo ti salaye to koju osuwọn fun wọn nipa awọn ewu ati awọn anfani ti o wa nibi siselati ṣe ipinnu alaye.

ỌJỌ …… .. IBUWỌLUWE …….

ORUkọ .....

Gbólóhùn ti Eniyan ti a ń gba Iwe Ifitonileti ati Fifaramo lati Kopa ninu Iwadi Lọwọ

Mo ti ka alaye ati ijuwe ti iwadii yii ni wọn ti tumọ si ede ti mo loye nipa . Mo ti sọrọ pẹlu dokita nipa itẹlọrun mi. O ye mi pe ikopa mi jẹ atinuwa. Mo ti mọ nipa idii, awọn ọna ati awọn anfani ti o wa fun iwadi yiidebi pe mo le se idajọ pe mo fẹ lati kopa ninu rẹ. O ye mi wipe mo le dawọ duro ti iwadi yi ba ń lọ lọwọ nigbakugba. Mo ti gba ẹda fọọmu ifọkansi yii ati iwe alaye ni afikun lati tọju fun ara mi.

ỌJỌ …… .. IBUWỌLUWE …….

ORUkọ

ỌJỌ …… ..

IBUWỌLUWE OLUJẸRI (Ti o ba wulo) …….

ORUKỌ OLUJẸRI (Ti o ba wulo) .....

Alaye lori ero ibanisọrọ pẹlu adirẹsi olubasọrọ, tẹlifoonu, Faksi, imeeli ati eyikeyi alaye olubasọrọ miiran ti iwadi (awọn), Igbimọ ti o fi ontẹ tẹ iwe iwadii yii ati olori igbimọ.

Ti eba ni ibeere kankan nipa ise iwadi yi ni igbakugba, e le kan si Oluremi, Olubukola Opeyemi

ni ori ero ayelujara olubukolaoluremi@gmail.com, Fun ibeere nipa eto yin gege bi olukopa ninu iwadi, ele kan si awon igbimo ti o nse atunyewo Ethics Committee ti University of Ibadan ni Biode Building, Room 210, 2nd Floor, Institute for Advanced Medical Research and Training, College of Medicine, University of Ibadan, E-mail: uiuchirc@yahoo.com and uiuchec@gmail.com

Igbimọ iwadii yii ti fọwọsi nipasẹ Igbimọ Ẹtọ ti Ile-ẹkọ giga ti Ile-ẹkọ Ibadan ati alaga igbimọ yii ni a le kan si ni Biode Buildong, Room 210, Ipakoko keji, Ile-ẹkọ fun Iwadi Iṣoogun ti Ilọsiwaju ati Ikẹkọ, Ile-iwe ti Oogun, Ile-iwe ti Ibadan, E -meeli: uiuchirec @ yahoo.comanduiuchec @ gmail.com.

JỌWỌ FI ẸDA IWE IFỌWỌSI TI IGBALAYE NIPA OLUKOPA

Appendix 2

QUESTIONNAIRE

PREVALENCE, KNOWLEDGE AND PREVENTIVE PRACTICES AGAINST HEPATITIS B VIRUS AMONG BLOOD DONORS AT THE UNIVERSITY COLLEGE HOSPITAL IBADAN, OYO STATE NIGERIA.

Dear Respondent,

I am a post graduate student at the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan. The purpose of this study is to gather information about the **PREVALENCE, KNOWLEDGE AND PREVENTIVE PRACTICES AGAINST HEPATITIS B VIRUS AMONG BLOOD DONORS AT THE UNIVERSITY COLLEGE HOSPITAL IBADAN, OYO STATE NIGERIA.**

Your participation in this study is very important as it would help to better understand your knowledge and preventive practices towards Hepatitis B Virus. Please also note that there is no right or wrong answers to the questions asked or the statements made. Thank you for cooperating.

Serial Number_____

Can we start now? _____

Please answer all the questions as honestly and accurately as you can, this is very important.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Instruction: Kindly respond appropriately to the following by marking or writing as appropriate in the space provided.

1. Sex1. Male [ ] 2. Female [ ]
2. What is your age as at last birthday (in years)? _____
3. What is your marital status? 1.Single [ ] 2.Married [ ] 3.Divorced [ ] 4.Widowed 5. Separated [ ]
4. What is your Religion? 1.Islam [ ] 2. Christianity [ ] 3.Traditional [ ] 4.Others _____
5. What is your Ethnic group? 1. Yoruba [ ] 2.Igbo [ ] 3. Hausa [ ] 4.Others_____
6. What is your Highest Level of education: 1. No formal education [ ] 2. Primary [ ] 3 .Secondary [ ] 4. Tertiary [ ] 5. Others (specify)_____
7. What is your Occupation: 1. Civil servant [ ] 2.Private sector [ ] 3. Student [ ] 4.Self-employed[ ] 5. Unemployed [ ] 6 .Retired [ ] 7. Artisan [ ] 8. Others (specify)_____

SECTION B: PREVALENCE OF HEPATITIS B VIRUS AMONG BLOOD DONORS

8. Do you know your Hepatitis B Virus status? 1. Yes [ ] 2. No [ ]

9. Do you have any history of Hepatitis B Virus in the past? 1.Yes [ ] 2. No [ ] 3.Don't know [ ]

10. Is there any history of Hepatitis B Virus in your family? 1. Yes [ ] 2. No[ ] 3.Don't know [ ]

11. Do you donate blood regularly 1. Yes [ ] 2. No [ ]

12. What type of donor are you? 1 voluntary [ ] 2 Replacement [ ] 3 Commercial [ ]

13. How many times have you donated blood in the past 2 years? 1. (0 – 1) [ ] 2. (2 – 4) [ ] 3. (5 – 7) [ ] 4. (8 – 10) [ ]

14. Laboratory Result from the Medical Laboratory Record

S/N	Status of Donors	RDT		ELISA	
		Positive	Negative	Positive	Negative
I.	Hepatitis B Virus				
II.	Hepatitis C				
III.	Hiv I and Hiv II				

SECTION C: SOURCES OF INFORMATION ON HEPATITIS B VIRUS AMONG BLOOD DONORS

15. Have you heard of Hepatitis B Virus infection? 1. Yes [ ] 2. No [ ]

16. What is your source of information on Hepatitis B Virus? _____

17. Does your source of information have influence on your preventive practice? _____

18. What is your most preferred source of information? _____

19. Do you think the information you have on Hepatitis B Virus is adequate? _____

SECTION D: KNOWLEDGE OFHEPATITIS B VIRUS AMONG BLOOD DONORS

20. What causes Hepatitis infection? _____

21. Mention two(2) ways of contracting Hepatitis B Virus _____

_____

22. Mention two infection routes for Hepatitis B Virus infection. _____

23. Mention two at risk population of contracting Hepatitis B Virus infection _____

24. Mention three disease Hepatitis B virus can cause _____

25. What organ does the Hepatitis B virus affect in the body? _____

26. Mention two ways Hepatitis B Virus can be prevented?

_____

27. Do you know there is HBV vaccine? _____

28. How many months does it take to have a complete dose? _____

29. How does one find out if he/she is Hepatitis B Virus positive?_____

30. Mention two ways in which Hepatitis B Virus can be transmitted

_____

SECTION E: QUESTIONS ON PREVENTIVE PRACTICES AGAINST HEPATITIS B VIRUS

	Question	**Yes**	**No**	**Scores**
31	Have you been screened for Hepatitis B Virus in the past 6 months			
32	Are you vaccinated against Hepatitis B Virus			
33	Do you recommend vaccination against Hepatitis B Virus among your family members?			
34	I reduce the risk of transmission of Hepatitis B Virus during blood transfusion			
35	I adhere to the appropriate intervals of the Hepatitis B Virus vaccination			
36	I can use first aid treatment in case of accidental exposure to Hepatitis B Virus			
37	I do not engage in unprotected sexual relationships			
38	I usually ask my barber /hairdresser to sterilize sharp objects before use.			
39	I usually protect myself from cut and injuries as a form of protection against Hepatitis B Virus.			
	Total Score Obtained			

Thank you for your time

ÈKA TI YORÙBÁ

ITANKALẸ, ÌMÒ ATI ÌSESÍ TÍ Ó LE DÈNÀ ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) LAARIN AWỌN OLUFẸJẸSILE NI ILE-IWOSAN YUNIFÀSITÌ TÍ ILẸ IBÁDÁN, IPINLẸ OYO ORILEDE NAIJIRIYA.

Ẹyin Olùkópa wa Owọn,

Mo jẹ akẹ̀ẹ́kọ́ làtí ile ìwé giga Yunifàsitì tí Ilẹ Ibádán ni ẹka tí àtí n risi eto nípa idanilẹkoo ati igbega eto ilera, ti o wan i Kolẹẹji tí ati n se itọju pélu oogun, ni abala tí ohun risi eto ilera àwọn ara ilu, Mo nse iwadi lori itakanlẹ, ìmò ati ìsesí tí ó le dènà àárùn Hepataitis b laarin awọn olufẹjẹsile ni ile-iwosan Yunifàsitì tí ilẹ Ibádán, Ipinlẹ Oyo Orilede Naijiriya.

Kikopa nínúu iwadi yìí jẹ tí eyi ti oti okan yin wa, ati fi ohunka idanimọ si ara awọn iwe ibeere kookan lati dabobo idanimọ rẹ. Gbogbo àlàyé tí ẹba si se fún mi ninu iwadi yi ni yìí o wa ni ipamọ larin emi àtí ẹyiín, mi ko sini se afihan rẹ fún ẹnikẹni.

Kikopa yin ninu iwadi yii ṣe pataki pupọ nitoriwipe yi o ṣe iranlọwọ fun oluwadi lati mọ iriri awọn iya ọmọde nipa irẹwẹsi lẹyin ibimọ ati biwọn se hun se ifarada rẹ. Ẹ jọwọ ẹni lati ṣe akiyesi wipe ko si idahun ti o tọ tabi eyi ti kotọ ninu gbogbo idahun eyikeyi ti ẹba fi fi esi si awọn ibeere ti a ba bi yin. Didahun si awọn ibeere yi ko ni gbayin ni akoko pupọ, nitoriwipe ko ni gbayin ju ogun tabi ogbọn iseju lọ. Ki a to maa tẹ siwaju, o tunmọ siwipe ẹ ti fi aramọ lati kopa ninu iwadi yi pẹlu gbigba lati kopa ninu ifọrọwanilẹnuwo.

A dupẹ lọwọ yin fun ifọwọsowọpọ yin.

Ohunka Idanimọ_____

Ẹ jowo, ẹ se àlàyé tí o ba péye, ti o si je otitọ fún mi lori awọn ibeere wọn yi - eleyi se pataki pupọ.

Njẹ a le bẹrẹ ni bayi?

IPIN A (Alàkọ́kọ́): SOCIO-DEMOGRAPHIC CHARACTERISTICS (Àlàyé lori eto igbesiaye olùkópa)

Ilana: E jowọ ẹ fi idahun si awọn ibeere wọn yii pẹlu fi fi ila tabi kikọ esi ti o yẹ si awọn alafo ti a pese.

1. Ṣé ọkùnrin ni yín tàbí obìnrin?

1. Ọkùnrin [ ]

2. Obìnrin [ ]

2. Ọmọ ọdún mélo ni ẹ jẹ́ ní ìgbà tí ẹ se ọjọ ìbí yín kẹhìn (ní ọdún)? _____

3. Kíni ipo igbeyawo yìín? Mi o tí fe oko [ ] Mo tí ni oko [ ] Mo tí fi oko mi sile [ ] Mo tí ko oko mi sile [ ] Oko mi tí ku [ ]

4. Kíni ẹsin tí en sin? Kristíani [ ] Musulumi [ ] Elesin Ibile [ ] Elesin miran: (ẹ dárúkọ ẹ ni pàtó)

_____

5. Kíni Eya tí ẹ tíwa? Yoruba [ ] Igbo [ ] Hausa [ ] Eya miran: (ẹ dárúkọ ẹ ni pàtó) _____

6. Kíni ipéle tí ẹ ka ìwé de?

1= Mi o ka iwe Kankan rara [ ] 2 = ile ìwé alakobere [ ] 3 = Ile ìwé girama [ ]

4 = Ile ẹkọsẹ [ ] 5= Ile iwe giga agba; 6= ipele ẹkọ miran: (ẹ dárúkọ ẹ ni pàtó) _____

7. Kini iṣẹ-iṣẹ yin: 1 = Oṣiṣẹ ijọba [ ] 2 = Osisẹ Ile-isẹ aladani [ ] 3 = Ọmọ ile-iwe [ ] 4 = Onisẹ ọwọ [ ] 5 = Alainiṣẹ [ ] 6 = Osisẹ fẹyìntì [ ] 7 = Awọn miiran (ṣalaye) _____

IPIN B (ELEEKEJI): ÌBÉÈRÈ LORÍI ITANKANLẸ NÍPA ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) (PREVALENCE OF HEPATITIS)

8. Njẹ ẹ mọ nipa àárùn epatáítìsì B rẹ? 1 = Bẹẹni [ ] 2 = Bẹẹkọ [ ]

9. Njẹ ẹni akọlẹ àárùn epatáítìsì b (àárùn ẹdo wiwu) ni igba kan rii? 1 = Bẹẹni [ ] 2 = Bẹẹkọ [ ] 3 = Mi o mọ mọ [ ]

10. Njẹ oni eyikeyi ninu ẹbi yin ti oni akọlẹ àárùn epatáítìsì b (àárùn ẹdo wiwu) ni igba kan rii? 1 = Bẹẹni [ ] 2 = Bẹẹkọ [ ] 3 = Mi o mọ mọ [ ]

11. Njẹ ẹ ma n fi ẹjẹ silẹ lore ko re? 1 = Bẹẹni [] 2 = Bẹẹkọ []

12. Iru af'ẹjẹ silẹ wo ni yin?

13. Igba melo ni ẹ ti fi ẹjẹ silẹ ni ọdun meji sẹhin? _____

14. Esi ayẹwo lati Yàrá-iṣayẹwo

S/N	Apẹrẹ àárùn	RDT		ELISA	
		O wa	Ko si	O wa	Ko si
I.	Ẹdo wiwu B				
II.	Ẹdo wiwu C				
III.	Hiv I ati Hiv II				

IPIN D (ẸLẸẸKẸTA): ÌBÉÈRÈ LORÍI ORISUN ALAYE NÍPA ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) (SOURCES OF INFORMATION ON HEPATITIS B AMONG BLOOD DONORS)

15. Nję o ti gbọ nipa ikolu ààrùn ẹdo wiwu B? 1 = Bẹẹni [ ] 2 = Bẹẹkọ [ ]

16. Nibo ni o ti gbọ nipa alaye na? _____

17. Nję orisun alaye yi ran ìsesí tí ó le dènà ààrùn yin lowo? _____

18. Elewo ninu awọn orisun alaye wọn yi ni o yan layo? _____

19. Nję ẹ lero pe alaye ti ẹ ni lori ààrùn ẹdo wiwu B to? 1 = Bẹẹni [] 2 = Bẹẹkọ [] 3 = Emi ko mọ []

IPIN E (ẸLẸẸKẸRIN): ÌBÉÈRÈ LORÍI ÌMÒ NÍPA ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) (KNOWLEDGE ABOUT HEPATITIS)

20. Nję ẹ mọ kokoro ti o n fa ààrùn ẹdo wiwu

21. Ẹ darukọ awọn ọna meji ti eniyan le gba ko ààrùn ẹdo wiwu _____

22. Ẹ darukọ awọn ohun meji ti kokoro ààrùn ẹdo wiwu le gba wọ ara _____

23. Ẹ darukọ orisi awọn eyan ti o wa nini eewu ikolu ààrùn ẹdo wiwu

24. Ẹ darukọ aarun ti kokoro ààrùn ẹdo wiwu le fa? _____

25. Ẹya ara wo ni kokoro ààrùn ẹdo wiwu n baja ninu ara? _____

26. Ẹ darukọ awọn ọna meji ti a ṣe le ṣe idena ààrùn ẹdo wiwu B? _____

27. Nję ẹmọ nipa abere ajesara ti o le dena ààrùn ẹdo wiwu B? _____

28. Oṣu melo ni ẹni na y i o filo? _____

29. Bawo ni eniyan ṣe le mọ boya oti ni ààrùn ẹdo wiwu B? _____

30. Ẹ darukọ awọn ọna meji ti eniyan le gba se itanklẹ ààrùn ẹdo wiwu_____

IPIN E (ẸLẸẸKẸRIN): ÌBÉÈRÈ LORÍI ÌSESÍ TÍ Ó LE DÈNÀ ÀÀRÙN EPATÁÍTÌSÌ B (ÀÀRÙN ẸDO WIWU) (QUESTIONS ON PREVENTIVE PRACTICES AGAINST HEPATITIS B)

	ÌBÉÈRÈ	Bẹẹni	Bẹẹkọ	Maaki
31.	Nje ẹ ti se ayẹwo fun ààrùn ẹdo wiwu B ni arin osu mefa seyin?			
32.	Nje ẹ ti gba abere ajesara ti o le dena ààrùn ẹdo wiwu B?			
33.	Nje ẹ gba ẹyikeyi ninu awọn ẹbi yin ni imọran gbigba abere ajesara ti o le dena ààrùn ẹdo wiwu B?			
34.	Ṣiwaju ki ẹ to gba lati fi ẹjẹ silẹ, nje ẹ bere fun ki wọn fi oogun to n pa kokoro fọọ awọn irinsẹ ti wọn fẹ lo?			
35.	Nje ẹ mọ nipa awọn akoko ti o yẹ ki eyan gba abere ajesara ti o le dena ààrùn ẹdo wiwu B?			
36.	Nje ẹ ma n lo itọju akoko ti o yẹ ki eyan fun ẹniti o bani ààrùn ẹdo wiwu B lojiji?			
37.	Emi ko ni ibalopọ lai lo roba idabobo			
38.	Mo ma ń sọfun awọn gẹrungẹrun/onidiri mi ki wọn fi oogun to n pa kokoro fọọ awọn irinsẹ ti wọn fẹ lo nigbagbogbo			
39.	Mo ma ń dabobo ara mi nigbagbogbo kuro nibi dida egbo ati ipalara gẹgẹbi ọna ti mole gba daabobo ara mi kuro nibi ààrùn ẹdo wiwu B.			

Ẹ ṣeun fun akoko yin ti ẹ fun wa.