



**SCHOOL OF MEDICINE AND HEALTH SCIENCES**

**KNOWLEDGE, ATTITUDE AND PRACTICES OF MOTOR VEHICLE DRIVERS  
TOWARDS THE ROAD TRANSPORT AND SAFETY AGENCY'S ROAD SAFETY  
MEASURES: A CASE STUDY OF CHALALA AREA, LUSAKA**

**BY**

**EVARISTO PHIRI**

**BSPH19216910**

**BSc PUBLIC HEALTH**

**SUPERVISOR: DR NORVAN TEMBO**

**A Dissertation submitted to the University of Lusaka in partial fulfillment of the  
requirements for the award of the Bachelor of Science degree in Public Health**

Declaration

Name of Student and ID: EVARISTO PHIRI BSPH19216910

I declare that this dissertation is my creative work and to the best of my acquaintance has not been presented for a degree in any other institution

Signature; E. Phiri

Date: 26<sup>th</sup> May, 2023

Supervisor Name; DR. Tembo

This dissertation has been submitted with my approval as a University of Lusaka (UNILUS) supervisor.

School of Medicine and Health Sciences, Department of Public Health.

Signature:



Date:

01/06/23

## **ABSTRACT**

### **Introduction**

Road traffic accidents are common occurrences in Zambia and they are responsible for the death of hundreds of people in our country annually. Recent times have witnessed a number of measures being implemented by the Road Transport and Safety Agency (RTSA) in order to make our roads safe but ultimately to reduce road carnage and save lives. However, with all these things in place, instead of going down, the number of Road Traffic Accidents in our country continues to rise.

### **AIM**

The study was carried out to “Determine the knowledge, attitude and practices of motor vehicle drivers towards the road transport and safety agency’s road safety measures”.

### **Methodology**

#### **Approach and Design**

This was a qualitative study, conducted on 15 participants consisting of 8 PSV drivers and 7 ordinary drivers. The study was conducted in Chalala, Lusaka. A semi structured questionnaire was used to interview drivers and observations were used to assess driver’s practices on the road. This study was important because it sought to establish the reasons why RTA rates continue to rise despite measures put in place to bring them down.

## **RESULTS**

Results obtained showed that drivers had a high level of Road Safety knowledge but poor road user behavior. Drivers tend to be more reckless in driving and less compliant to road safety rules. Such behavior is responsible for the continuous increase of RTA rates that are recorded in the country. This study revealed that there is adequate knowledge on road safety among drivers, however the concern is on the driver's poor attitude and practices towards these measures.

## **CONCLUSION**

In spite of drivers having adequate knowledge on safety measures, their attitude and practices where negative towards these measures, therefore government and other stakeholders should consider massive investments into educating drivers on the importance of putting road safety measures into practice. Future studies should verify whether the measures put in place by RTSA

to ensure road safety have led to improved attitude and practices among drivers and leading to a reduction in RTAs.

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## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **BACKGROUND**

Transportation is a non-separable part of any society as it has over the years improved the way people and goods are able to move from place to place in an easy and convenient way. Zambia like most developing countries relies heavily on road transport as the most common means of transportation within the country. Majority of the population use Public Service Vehicles (PSVs) to move from place to place, which can be for the purpose of going to ones place of work, to the health facility, school as well as simply for the purpose of transporting goods. Due to high dependence on this mode of transportation, Zambia has over the years recorded a number of Road Traffic Accidents (RTAs) associated with PSVs as well as private vehicles.

RTAs are among the leading causes of death and injury of people across the world. Approximately 1.3 million people's lives are cut short each year as a result of RTAs, in which a majority of the deaths are among the most vulnerable road users such as pedestrians, cyclists and motorcyclists (WHO, 2022). In Zambia RTAs are ranked as the third highest causes of death after HIV/AIDS and Malaria, claiming thousands of lives annually. While death cannot be avoided, deaths arising from RTAs are on the rise and are traumatizing to those whose family members are involved because they are sudden.

However through an Act of parliament, the Government of the Republic of Zambia (GRZ) established the Road transport and Safety Agency (RTSA) which was established under the Road Traffic Act No. 11 of 2002, in which one of its main functions is to effectively implement policy on transport, traffic management and road safety. The Government through RTSA and the Zambia Police (ZP) work together to ensure measures are put in place to reduce injuries and fatalities related to RTAs. As well as collect and monitor the progress of the measures. Several measures by RTSA in conjunction with ZP were put in place to control and prevent road traffic accidents, such as introducing drivers licensing exams, publishing a high way code guide, reduced speed limits on many roads, police check points, speed traps as well as motor vehicle fitness tests (Mubanga and Mangolwa 2021). Although such measures have been put in place, Zambia still faces an increase in the number of road traffic accidents that lead to both injury as well as death for both motorists and pedestrians (Anon., 2022). Therefore this study was

conducted to determine the knowledge, attitudes and practices of drivers towards measures put in place by RTSA to reduce RTAs in Zambia.

### 1.1 STATEMENT OF THE PROBLEM

Road traffic accidents that lead to death and injury are a growing public health concern worldwide in which an estimate shows that they account for 1.35 million deaths (Centers for Disease Control and Prevention, 2020). The World Health Organisation (WHO) says 93 percent of accident fatalities on the roads occur in low and middle income countries. It says developing economies record higher numbers of RTAs related injuries, both fatal and non-fatal injuries. In 2020, 28,484 road traffic accidents were recorded as compared to 32,372 road traffic accidents which were recorded in 2021(Hamoonga, 2021). Despite measures put in place by RTSA, there is still an increase in the number of fatal accidents especially between the years 2020 and 2021. In 2020 there were 1,404 recorded fatal road traffic accidents in which 1,690 persons were killed as compared to 1,757 fatal road traffic accidents where 2,163 persons were killed in 2021 in which 25% of the accidents occur in Lusaka province (Hamoonga, 2021). In the first quarter of 2022 over 7000 RTAs were recorded of which about 600 lives were lost (Mail, 2022). RTAs have claimed a number of lives of both motorists and pedestrians, including destruction of infrastructure both public and private. According to Zambia police report (2021), most RTAs were as a result of human error of which 14.9% of the recorded accidents were as a result of over speeding, 14.5% were as a result of misjudging clearance distance and 6.3% were as a result of negligence when reversing. Therefore, this research conducted observational studies on drivers' behaviours as one of the methods of data collection and has helped to come up with appropriate recommendations on how RTAs can be reduced in Zambia.

### 1.2 JUSTIFICATION

Zambia being one of the developing countries in the world, the expectations of experiencing RTAs are still high due to high importation of more vehicles over time and high demand in road transportation use, therefore leading to increase of vehicles on the national roads and likelihood of more RTAs. With respect to the United Nations (UN) resolution (2021) on "Improving Road Safety," of which Zambia is a member of, the resolution proclaimed actions to reduce RTAs by 50% between 2021 and 2030. The resolution looks at mobilising resources to work on reducing RTAs such as enhancing lessons on the use of seatbelts and policies to address driving under the

influence of alcohol and drugs. In line with the existing considerations to reduce RTAs there is need for more emphasis to put on the knowledge, attitude and practices of drivers towards these measures in order to meet the UN resolution objectives in Zambia.

This research was conducted to determine the knowledge, attitude and practices of drivers towards road safety measures put in place by the road transport and safety agency and helped to come up with additional measures to reduce RTAs in line with the United Nations resolution as well as for academic purposes.

### 1.3 GENERAL OBJECTIVE

**The general objective was:** To assess the knowledge, attitudes and practices of drivers of Chalala towards RTSA road safety measures.

### 1.4 SPECIFIC OBJECTIVES:

The specific objectives were:

- I.** To assess the road safety measures put in place by RTSA in Zambia.
- II.** To assess the knowledge of drivers of Chalala on these measures.
- III.** To determine the attitude and practices of drivers in Chalala towards the road safety measures.

### 1.5 RESEARCH QUESTIONS: The research questions were;

- I.** What are the road safety measures put in place by RTSA in Zambia?
- II.** What knowledge do the drivers of Chalala have on these measures?
- III.** What are the attitudes and practices of drivers in Chalala towards the road safety measures put in place?

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

Literature review is a section of academic works presenting knowledge and understanding of educational literature on a particular topic placed in context. This chapter will critically evaluate different author published works by reviewing available writings in line with my topic of interest, looking at their methodologies as well as their findings on the knowledge, attitude and practices of drivers towards road safety measures. The works will also be used to identify a gap where there is little or no information as well as criticize, compare different works from methodologies to results (findings). This literature will use a structure looking at works done globally and narrowing down to local publications sourced from Google scholar, ResarchGate and PubMed.

Motorized public transportation is the best choice in most countries around the world as a means of getting from one place to another. For many years, people going about their daily business have relied heavily on vehicles. However, in recent years, the number of RTAs has increased worldwide due to various factors, including poor road conditions, excessive speed and non-observance of traffic rules. Road safety measures are used to reduce the risk of serious injury or death to road users in accidents. Road safety measures monitor roads, traffic control systems, vehicles, police surveillance, road users and their behavior. Traffic laws have also been put in place to restrict speeding, drunk driving and mobile phone use while driving. Although there are several factors leading to RTAs worldwide and in Zambia, this literature review focuses on only three main areas: drivers' knowledge, attitudes and practices regarding road safety measures. All studies used in this literature review should address at least one of the key areas listed.

Shahid (2018), in her research whose objective was to determine and explore the knowledge, attitudes and practice towards traffic regulations of professional drivers in Multan (Punjab), Pakistan, through the use of a questionnaire as a data collection tool established that despite there being many professional drivers in Multan (Pakistan), they had inadequate knowledge as well as negative attitudes and risky practices towards traffic regulations. The findings of this study established that there is poor knowledge, attitude as well as risky practices among drivers towards road safety measures are the leading causes to increase in RTAs in the world.

Yesikar et al. (2021) used a quantitative approach in which a cross-sectional study design was used. In their study, 380 young adults (aged 18 years and older) from four districts of Indore,

India participated as subjects for 6 months. The instrument used for data collection was a semi-structured questionnaire (a type of unplanned interview in which the interviewer asks only a few predetermined questions and the remaining questions are questions about drivers' knowledge, attitudes and experience of traffic rules (Research gate, 2022). The findings of the study were that, less than 50% of the participants were familiar with traffic laws and showed a positive attitude. Therefore, it was concluded that the increase in RTAs was caused by the driver's lack of knowledge about traffic laws, low positive attitude from those who knew the rules, and risky behaviors such as using the phone and not using a seat belt while driving which is in agreement with the findings of Shahid (2018).

Mwanza *et al.* (2017), in their study in Kabwe, Central province used a cross sectional study design of which 384 randomly selected public bus drivers were enrolled into the study. A structured questionnaire (structured questionnaire have fixed alternative like multiple choice, yes/no or true/false questions and mostly used for quantitative studies (research gate) was used to determine the KAP of drivers on road guidelines. The findings of the research conducted by Mwanza *et al.* revealed that an increase in the number of RTAs was linked to the poor knowledge and attitude towards safety rules, specifically the rules on drunk driving among public bus drivers. These findings also agree with the findings of the other authors (Shahid, 2018 and Yesika *et al.*, 2020) that there is poor KAP among drivers towards road traffic rules, which explains the increase in RTAs.

In addition, another study by Kawui (2017) took a total sample of 110 drivers who were selected for an experimental study where two different types of drivers were selected. PSV drivers constituted the experimental group and regular drivers constituted the control group. Both groups were given the same set of questions using structured questionnaires to investigate formal driver education levels, road safety perceptions and to assess PSV drivers' road behavior compared to regular drivers. Following the investigations, it was found that the driver's knowledge and attitude regarding safety measures were insufficient. The study went further and found that PSV drivers lack knowledge and have poor attitudes. The study found that reckless driving and road violations were common behavior patterns among PSV drivers. Driver fatigue and excessive speeding have been identified as one of the major factors influencing RTA rates in Zambia. Inadequate road safety equipment such as traffic signs and road markings on roads and highways

also play a role in increasing the number of RTAs in the country. Road signs announcing dangerous areas such as densely populated areas, schools in front, pedestrian crossings and humps are not displayed for traffic control. Incidentally, the warning signs with turns, narrow roads and bridges were also out of place all these played a role in leading to an increase in the number of RTAs.

Trivedi et al. (2018), argues that the main reason for the increase in RTAs is not the lack of knowledge, but the poor attitude and practices of drivers with regards to road safety measures. The study conducted a cross-sectional survey of 139 drivers, using a structured and pre-tested questionnaire to collect data. From the results obtained at data analysis, it was established that more than 60% of the participants were aware of traffic laws, but the majority of drivers exhibited poor attitudes and practices, such as speeding, not wearing safety equipment such as seat belts and drunk driving. The study concluded that the level of awareness of traffic safety was high. However, most of them did not follow the rules, which led to an increase in RTAs.

Humayun (2021) supported Trivedi's findings with the use of a cross-sectional survey of 428 university students at Rosary College of Commerce and Arts, Navelim, Salcete and South Goa. The data collection tool used was also a pre-designed questionnaire to assess road safety awareness and practices. After the data was analyzed, it was found that the majority of students generally had good knowledge and attitude towards road safety rules, but poor practices. The results also showed significant differences between gender and some variables such as seat belt use and mobile phone use while driving, as well as having a valid driver's license, indicating that men used seat belts less often than women, it also showed that some men did not have a valid driver's licenses. Bad road conditions (45.4%), over speeding (21.3%) and overtaking (19.4%) were the most frequent reasons for traffic accidents cited by study participants. He concluded by stressing the need to take steps to educate drivers on the importance of implementing road safety measures that will ultimately reduce suffering and death from road traffic accidents.

Sharma (2017) conducted a descriptive cross-sectional study of 150 medical (100) and nursing (50) students at the All India Institute of Medical Sciences, Rishikesh, Uttarakhand. The research showed that only 18.7% of students had relatively high knowledge of road traffic safety rules, while the majority (81.3%) of students had low to average level of knowledge. However, the attitude of the participants was acceptable but still life-threatening due to their inadequate road



safety practices. Therefore, it is concluded that educational programs should be implemented in order to improve the attitude and practice of road safety rules in order to reduce the frequency of road traffic accidents.

Demissie *et al.* (2021), in their study established that reason for the occurrence of RTAs was more linked to drivers with negative attitudes and practices towards road safety measures as opposed to their level of knowledge on the measures. They further emphasized on the need for measures for tackling these tragic events to focus more on enhancing drivers attitude and practices towards road safety measures which in agreement with Humanyun (2021) findings.

Ranjan *et al.* (2018), conducted a cross sectional study among (372) to determine their knowledge on road safety rules and regulations. The study established that only 25 participants (7.7%) were driving with a valid driving license. The participants had adequate knowledge on the road safety rules and regulations. But it was further established that merely knowledge does not necessarily mean an improved traffic behavior as was seen in this study. It was therefore concluded that there is need for emphasis on educational programs to remind and encourage drivers on the importance of them putting into practice the traffic rules.

Tun (2019) conducted a study with a sample of 160 bus drivers using the Yangon-Mandalay Expressway. The study showed that there the driver had sufficient knowledge regarding road safety measures, moderate thinking and some good driving habits. However the study also found that the majority of drivers who had been involved in accidents in their driving life said that they did not always follow the speed limits of the road. Over speeding combined with poor road conditions increased the likelihood of RTAs along Yangon-Mandalay Expressway. It was also found that some private driving schools, were not monitored or evaluated by the government and that all driving schools in Myanmar do not have a standard curriculum which provides drivers with proper training to improve their driving habits. It was concluded that, effective and standardized intervention programs are recommended to increase driver behaviors that are a major cause of traffic accidents and injuries.

Timmermans *et al.* (2022), conducted a study to determine the KAP of drivers towards road safety measures. The findings of the study were that participant's hard knowledge regarding road safety measures. The problem was on the practices which was seen that drivers accepted that they engaged in dangerous violations, such as using their phones while driving, drunk driving

and over speeding. The findings of this study are in agreement with the findings of the other authors above. It was therefore concluded that the findings of this study could be used to improve road safety programs for education and enforcement in Egypt.

RTSA (2021), conducted a study on speeding which was done by Zambia Institute for Policy Analysis and Research (ZIPAR) on behalf of the Road Transport and Safety Agency (RTSA) in 2016. The study revealed that practices such as speeding are among the leading causes of RTAs and most of the drivers on the Zambian roads are driving above the recommended speed limit, a behavior that has greatly contributed to road crashes, that lead to death and injuries. The study also established that the prevalence of speeding was higher among male motorists with 58 percent compared to the 42% for female motorists. The number of speeding vehicles is more common along major highways in Zambia. The study ranked speeding as the second leading cause of RTAs in Zambia and concluded that if motorists observe speed limits, the country is projected to reduce the number of RTAs by 35%.

Most of the studies preferred to use a quantitative approach in establishing what the knowledge attitude and practices of drivers are towards road safety measures which only gives numerical data on findings, this research however used a qualitative approach and compared the results found to those of the quantitative researchers above. The literature also showed that there was a gap on whether the cause of an increase in RTAs was as a result of lack of knowledge, poor attitude and practices or is just as a result of poor attitude and practices. This research considered all three areas which are the knowledge, attitude and practices which were used to determine what the cause of RTAs is. This research also went further and used observational studies to collect data on drivers practices towards road safety measures, which the studies in the literature review didn't consider.

## **2.1 THEORETICAL FRAMEWORK**

### **The Epidemiological Theory of Accident Causation**

This approach considers the relationship between environmental factors and disease. It consists of two main components: predisposition tendencies that lead people to perform certain behaviors such as their perceptions and environmental forces which can all cause or prevent accidents. It also looks at situational characteristics such as lack of communication, peer pressure and attitudes which can influence risky behaviors (Occupational Safety. and Health, 2010). Together,

these characteristics can cause or prevent accidents to which a person is exposed to in a given situation. This means that accidents occur as a result of certain environmental factors that increase the risk of an accident. For example, road conditions can make driving unsafe and cause vehicle accidents. On the other hand, drivers who violate traffic safety rules such as drunk driving and speeding are involved in traffic accidents. This behavior is common among younger drivers and PSV drivers. They also exhibit risky behaviors such as stopping traffic or driving too fast to reach traffic lights.

### **Combination Theory**

This theory states that there is no single model/theory that can explain the causes of all accidents. This theory entails that different elements from different theories or models should be part of the cause. Therefore, to understand the causes of accidents, seven main directions are considered: intervention, identification of internal factors, motivation to act in the desired way, attention to the positive consequences of appropriate behavior, application of the scientific method and integration, information and planned interventions (Occupational Safety and Health, 2010). Understanding the causes of accidents is indeed a complex subject and requires consideration of many factors. It is for this reason that this study will consider different factors which are the knowledge, attitudes and practices of drivers towards road safety measures.

## 2.2 CONCEPTUAL FRAMEWORK

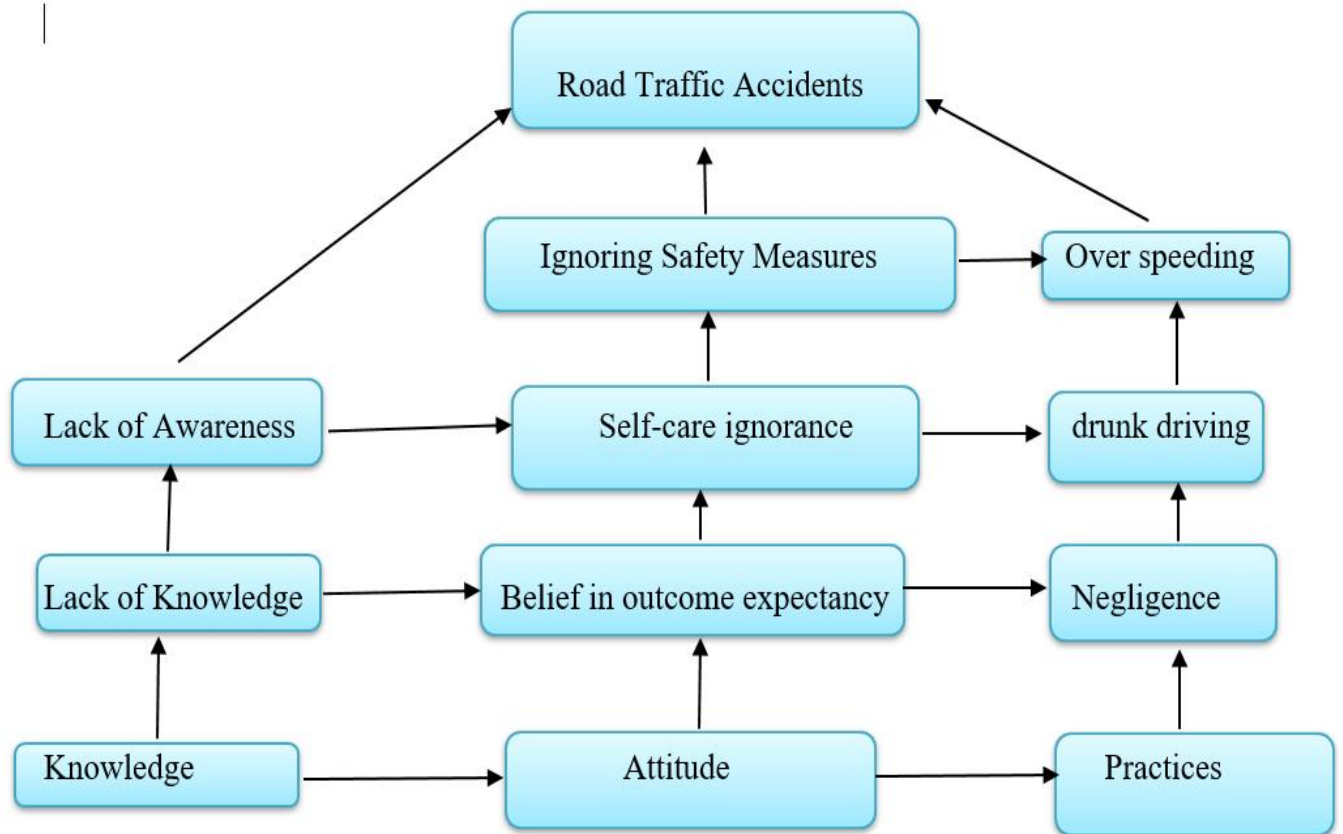


Figure 1: The relationship of the factors leading to the Road Traffic Accidents (Grace, 2017).

## **CHAPTER THREE: METHODOLOGY**

### **3.0 Introduction**

A research methodology is a specific process, method or procedure used to identify, select, process and analyze information about a subject (University of the Witwatersrand Johannesburg, 2022). This chapter describes the data collection method, study area, study approach, target population and data analysis methods for this study. It also presents all the inclusion and exclusion for the sample participants necessary for the study and the ethical considerations to be kept in mind while conducting this study.

### **3.1 Study Approach**

This research used a qualitative study approach. This approach uses non-numerical data that is usually collected first hand through focus group discussions, interviews and observational studies. Qualitative study approach also aim at understanding opinions, concepts and experiences of a particular phenomenon (Sutton, 2018). The reason a qualitative approach was used in this study was to have a better understanding and compare the findings of this study to those of quantitative study approaches on knowledge, attitude and practices (KAPs) of drivers.

### **3.2 Study design**

This study used a Case study as a study design. This is a type of study design that aims to explore a specific subject, such as a group of people, a person, place, even or phenomenon. It focuses on exploring the reasons or factors leading to a particular even or what influences the existence of particular events. This study utilized the two types of case studies which are descriptive case study and explanatory case study. A descriptive case study involves describing theories, observation of subjects relating to the study, and comparison of information collected to the pre-existing theories. Explanatory case study often involves using the study investigations to explain what leads to certain events (Cherry, 2022) .

This study was conducted to observe, assess and compare the theories of road traffic accidents in relation to knowledge, attitudes and practices of drivers concerning RTSA's measures to reduce RTAs.

### **3.3 Study population/Target population**

The study focused on drivers within Chalala both PSV drivers as well as drivers of private vehicles.

The inclusions criteria were; individuals with a valid driving license with at least 2 years of driving experience, this is because they may have experienced different events during the years they've driven and will be able to share relevant information with regards to this research. The participants must be Zambian citizens as the research is based on the interest of national level. The drivers should be within Chalala, Lusaka.

The exclusion criteria were; drivers without a valid driving license, drivers with less than two years of driving experience, drivers who are not Zambian citizens and those who are not within the study area which is Chalala, Lusaka.

### **3.4 Sampling techniques**

Purposive sampling is a non-probability sampling technique mainly used by qualitative researchers to select appropriate samples with similar characteristics from a population (Nikolopoulou, 2022). Homogeneous sampling is a type of purposive sampling that identifies individuals in a population who have certain characteristics in common, such as age, race, occupation, and location (Formplus, 2022). Therefore, this study, used a homogeneous type of purposive sampling to sample drivers, especially from the Chalala region and collected in-depth and detailed information about the phenomena of drivers' knowledge, attitudes and experiences RTSA measures.

### **3.5 Sample size determination**

The study was based on a sample size of 15 participants. This targeted sample size is in relation with the recommended sample size for a qualitative study which is between 10 to 30 participants according to Interq Intein; Shatty (2018).

### **3.6 Data collection methods**

Interviews were used in this study to explore participants' experiences, perspectives, understandings or motivations, because interviews are often used in qualitative research as an appropriate data collection method for understanding social science phenomena (Deakin

University, 2022). This research collected data in the form of interviews based on semi-structured questions. Semi-structured interviews are usually open-ended questions that are qualitative in nature to allow flexibility of information for easy interaction and to gather more information in relation to the topic. Semi-structured interviews are based on asking questions within a predetermined theme, although the questions are not ordered or formulated. The study also used observations as a data collection method to find out what drivers do with the road safety measures they take.

### **3.7 Data analysis**

Thematic analysis is a qualitatively based approach to data analysis that involves reading data from in-depth interviews or focus group discussions and categorizing patterns of meaning in the data to derive themes related to the research topic (Delve, 2020). This study used thematic data analysis techniques by first familiarizing with the collected data, coding the data, formulating themes, revising themes, defining and naming themes, and finally writing themes.

Content analysis was also be used for data analysis. It is a tool used to identify the presence of specific words, topics or concepts within a given set of qualitative data. It is also used to analyze the meaning and relationships of certain words to the topic being researched (Columbia public health, 2022).

### **3.8 Ethical considerations**

Ethical considerations can be called a set of values that should be taken into account to guide research practice in order to avoid harm in any way. This study involved the study of people's knowledge, attitudes and practices towards RTSA road safety measures. The research proposal for this study was submitted to the University of Lusaka Research Committee for ethical approval. Permissions from all participants was obtained by signing a consent form. The research also adhered to the principles of beneficence research ethics, that entails maximum benefit to stakeholders and academics, the research also adhered to the principle of autonomy, where participants were given freedom to choose to participate in the study.

## CHAPTER FOUR

### 4.0 RESEARCH FINDINGS

#### **Age distribution of both PSV and ordinary drivers in Chalala.**

Age Distribution of all Drivers included in the study, both PSV and Ordinary Drivers in Chalala, Lusaka.

The participants range of both of PSV drivers and ordinary drivers involved in this study were between 24 and 55 years respectively. A majority of them of drivers fell in the category 30-39 years old followed by those who were between 20-29 and very few where between 40-55 years old.

#### **Drivers in Chalala who have Attended Driving School**

According to the findings of this study, it was found that majority of the drivers interviewed attended driving school. The study found that majority of the participants who were ordinary drivers attended driving school before attaining a driving license while 3 of the 7 interviewed PSV drivers attended driving school.

### **DRIVERS KNOWLEDGE**

#### **Acquiring of driving skills**

For those drivers that did not attend driving school, they were asked to state how they learnt how to drive and their responses are showed show that some of the PSV drivers learnt how to drive while being a bus conductor, others leant how drive from someone, while majority of the ordinary driver majority of them leant by practicing on the vehicle at home.

#### **Table 1: Why PSV and Ordinary Drivers Perceive Attending Driving School as Unnecessary**

The drivers who deemed it unnecessary to attend driving school before one can start driving were asked to explain why, and Table 2 shows the responses they gave. The Reponses include both categories of drivers.



<b>Themes</b>	<b>Responses</b>
<b>Uninterested</b>	<p>I just never wanted to go to a driving school.</p> <p>Going to learn how to drive from a driving school is a waste of time and money</p> <p>It's a waste of time.</p>
<b>Knowledgeable about driving</b>	<p>I already knew how to drive, so there was no need to go to driving school.</p> <p>I already taught myself about driving and the necessary road rules.</p> <p>I was taught about driving and the rules by my uncle so I already knew how to drive.</p>
<b>Assisted to get a License</b>	<p>I knew someone who helped me get a driving license without going to driving school</p> <p>I didn't go to a driving school because I have a relative who works for RTSA so they helped me get my license.</p> <p>I just paid someone to help me get a license without going to driving school.</p>
<b>Driving is not hard</b>	<p>Why would I want to go and learn how to drive from a driving school when driving something simple?</p>

**Table 2: Drivers Understanding of Road Safety**

Table shows a summary of themes as well as responses of drivers regarding what they understood by road safety. The common themes are based of the responses given by the drivers.

Themes	Responses
<b>Following and Obeying Road rules</b>	<p>I know that road safety is about following road rules and regulations.</p> <p>Road safety is about obeying traffic signs and listening to what the police teach us.</p> <p>It is about following road signs and the ten basic rules.</p> <p>Road safety is about driving in a way we are supposed to follow the ten basic rules</p>
<b>No drunk driving</b>	<p>Road safety is about not drinking while driving to prevent accidents.</p> <p>Drinking and driving is not allowed, that's what road safety is about</p> <p>Don't drink and drive.</p>
<b>Obeying road signs</b>	<p>Stopping at traffic lights when the lights are red and going when it's green.</p> <p>Driving at the recommended speed limit for each road is what road safety is about.</p>
<b>Use of Seat belts</b>	<p>Always wearing a seat belt when driving, because it is one of the safety recommendations by the police.</p>

	Buckle up your seat belt when driving is a road safety measure
<b>Exercising patience</b>	It is important to give chance to other road users to avoid accidents.  Sometimes it is important to stop and allow other road users to pass such as pedestrians and people riding bicycles.
<b>Alert and aware of one's surroundings</b>	It is dangerous to drive fast in crowded areas so it's important to know the area you are in and adjust your speed accordingly.
<b>Qualified driver</b>	It is not allowed to drive without having a driving license, so you need to get one before you start driving.

**Table 3: Number of drivers who were able to identify road signs**

	PSV Drivers	Ordinary drivers
Those who were able to identify the road signs	5	7
Those who were not able to identify the road signs	2	1

#### **DRIVERS PRACTICES**

**Table 4: Reasons why drivers were stopped by RTSA/Police**

This table represents the common themes as well as a summary of the responses that were given by the drivers regarding the question asked on the reason why they were stopped by the Police/RTSA.

<b>Themes</b>	<b>Responses</b>
<b>Over speeding</b>	<p>I was caught by one of the speed traps that the police mounted</p> <p>I was driving very fast and decided to overtake another vehicle and I was stopped by the police who put a speed trap ahead.</p> <p>The police like putting speed traps in random places and that's why I was stopped because I was driving very fast</p> <p>I was caught because of over speeding.</p>
<b>No Necessary documents</b>	<p>The vehicles road tax was expired.</p> <p>My vehicle did not have and papers on the front screen and I was stopped by the police.</p>
<b>Overloading</b>	<p>The bus was overloaded with people.</p> <p>My truck was overloaded with building materials.</p>
<b>Stopping in undesignated places</b>	<p>The police usually stop this bus because of parking it in the middle of the road when picking people up.</p> <p>Caught for dropping off a passenger on the middle of the road.</p>
<b>Vehicle not road worthy</b>	<p>I was stopped by the police because of the trucks broken tail lights.</p> <p>The condition of my car wasn't good (Cracked windshield, broken rear and front lights and some body damages).</p>

### Table 5 Drivers involved in road traffic accidents

Table shows a summary of the reasons given by the drivers on what caused the accidents they were involved in as well as the common themes that emerged.

Theme	Responses
<b>Drunk driving</b>	I was drunk when I was driving home and I hit into another vehicle that stopped in front of me
<b>Trying to beat the traffic lights</b>	Tried speeding to beat the traffic lights but ended up hitting into another car that was crossing.
<b>Over speeding</b>	I was rushing for work and I hit a pothole while driving very fast and lost control of the car and hit a wall fence
<b>Over taking another vehicle</b>	Miscalculated the speed of an oncoming vehicle while I was overtaking and ended up going off the road into a drainage.

### Drivers Practices on the road

The results of the study showed that majority of PSV and Ordinary drivers slowed down as well as stopped at stop signs. It was also observed that none of the PSV drivers wore seat belts when driving and only half of the observed ordinary drivers wore seatbelts while driving. It was also observed that majority of driver exceeded the speed limit on most roads. The use of mobile phones while driving was also a common practice among ordinary drivers showing that majority of ordinary driver who use their phones while driving. It was also observed that majority of reckless driving practices was high among PSV drivers. Practices such as reckless overtaking of other bus drivers, beating traffic lights and over speeding were all common practices among majority of PSV drivers. Drunk driving was also another observed practice that was common among majority of PSV drivers as well as ordinary drivers.

### DRIVERS ATTITUDE

**Table 6: Drivers attitude towards road safety measures**

The table shows a summary of responses that drivers gave when they were asked what road measures they know and how they felt about that safety measure. The common themes that emerged were Roadblocks, Reduced speed limits, Seatbelts and Drinking and driving.

<p><b>Road blocks</b></p>	<p>I always just pass because of the government vehicle that I drive.</p> <p>The police create road blocks because of hunger</p> <p>The police just cause unnecessary congestion on the road</p> <p>Vima roadblock Vimani mvesa chifukushi, sinima ona use yakayena (road blocks just irritate me and I do not see their use).</p> <p>Ma Roadblock niyama inconvenience sitinga sebenze mushe (road roads are inconveniencing and we are unable to work well).</p> <p>Ah Yamati vuta pa road ( they just trouble us on the road)</p> <p>I avoid using routes where roadblocks are usually mounted.</p> <p>They just don't make any sense, I still don't see there purpose.</p>
<p><b>Reduced speed limits</b></p>	<p>The speed limits don't affect me</p>

	<p>It's not like I follow them</p> <p>I only follow the speed limits in areas where there are speed traps</p> <p>It was a good idea, but it doesn't work because no one follows the speed limit.</p> <p>They wasted their time when deciding to reduce the speed limits</p> <p>Who drives at 60km/h</p>
<b>Seatbelts</b>	<p>Wearing a seatbelt for long periods is not comfortable</p> <p>Sinima visebenzesa (I do not use it)</p> <p>It's important to always use a seatbelt, I always use it all the time when I'm driving.</p> <p>The ones in my car don't even work.</p> <p>Nima visebenzesa tika ona ba police kusogolo (I use a seatbelt when I see the police ahead).</p> <p>Driving with a seatbelt on is safe</p>
<b>Drink and drive</b>	<p>I'm still able to drive even if im abit drunk</p> <p>Sini mamwa moba (I don't take alcohol)</p> <p>Beer has never affected me when I'm driving and I've been doing this for years.</p>

	<p>I always give a friend to drive when I'm drunk.</p> <p>I drive better when I'm a bit drunk</p> <p>I was involved in an accident because of drunk driving, so I just drink from home.</p>
<p><b>Vehicle fitness exams</b></p>	<p>I don't take my car for physical fitness exams, everything is done on phone.</p> <p>Ba boss bama ipeleka motoka (My boss takes the vehicle)</p> <p>My car has never missed a fitness exam, I always take it.</p> <p>This bus always goes for fitness exams at RTSA</p> <p>My vehicle is in good condition so I just take my documents Ku RTSA and get my fitness</p>



## CHAPTER 5

### **5.1 DISCUSSION INTERPRETATION OF KEY FINDINGS**

The main aim of this chapter is to critically reflect on some of the important features emerging from this study. In proceeding, the discussion will be done in line with the objectives that were set as well as the research questions that were asked. This discussion will be based on the responses given by the respondents as well as the observations obtained from the cross tabulations and analyses done by the researcher concerning certain independent and dependent variables.

#### **Drivers Knowledge and Attitude**

Drivers have always been encouraged to attend driving school and go through necessary training before they can acquire a driving license. The importance of a good driver education program is that it provides defensive driving which is a form of training for motor vehicle drivers that goes beyond mastery of the rules and provides training about types of accidents and how to avoid them which can reduce the likelihood of accidents. In addition, knowledge of road safety can eliminate many dangers on the road and make it safer for everyone. Another importance of attending formal driving school is take driver education courses is because they are exposed to information regarding road safety as well as how to drive properly and all necessary traffic rules and signs which drivers are tested on and this is the same information they are encouraged to use in practice. Before a driver can be given their license they are examined both in theory and practice on how they understand and interpret what they were taught about driving and road safety rules. This helps to determine whether or not they get a driver's license. Given this importance, the results of this study show that majority of drivers both PSV and ordinary drivers attended driving school before getting their driving license. This shows that drivers see the importance to undergo formal training before they can attain their driving license.

However for those drivers that did not attend driving school when asked why? Some of the responses where; "I just never wanted to go to driving school", "Going to learn how to drive from a driving school is a waste of time and money", "Ninazi punzisa kuyenza neka, nama rules yapa road ninaya belenga, so sina oneh reason yo yenda ku driving school"(I taught myself about

driving and the necessary road rules, so I did not see any reason to go to driving school). These are just some of the reasons given by the drivers who did not attend driving school. These responses show that a minority of the drivers have negative attitudes towards driving schools and simply don't see the importance of them, because whether or not they attend driving school they are still able to get a driving license which means that the roads have a number of unqualified drivers who have the potential to put both themselves as well as other road users at risk of being involved in RTAs.

According to WHO (2023), Road safety entails the measures taken to reduce the risk of road traffic injuries and death. Road safety also involves having knowledge about the methods and measures that are used to prevent road users from being injured or killed as a result of RTAs. One of the functions of RTSA is to save and protect lives by educating and supporting road safety awareness campaigns. The agency uses training and outreach programs to reach out to stakeholders and all road users. Road safety education and communication is the cornerstone and tool that supports all programs aimed at changing road safety behavior. Therefore, the main goal of road safety education and communication is to change the behavior of road users and making the roads safer.

Given this information, the results show that the participants involved in this study had knowledge regarding road safety and what it means. Some of the responses given by the participants concerning road safety were; “I know that road safety is about following road rules and regulations”, “Always wearing a seat belt when driving, because it is one of the safety recommendations by the police”. The fact that drivers were able to give a response regarding what they understood by road safety shows significant evidence that they understand what road safety is all about. This also shows that the investments in messages and educational programs that RTSA uses to inform the people on the importance of road safety and obeying road safety messages are reaching the relevant stakeholders. The results of the study also show that drivers have knowledge on some of the common road signs used on most of the roads in Zambia. These findings are similar to the findings of Chavin D Gopaul et al, (2017), Abdolhamid Tajvar et al, (2017) and Kishore Yadav Jothula et al, (2021), who in their studies established that the drivers had negative attitudes towards safety measures and that translated into poor practices on the road.

The results however also show that drivers have negative attitudes towards these measures as shown by the responses shown in Table 6. When the drivers were asked to talk about a safety measures of their choice, majority of them showed negative attitudes towards the safety measures. Some of the responses where; “The police roadblocks cause unnecessary congestion on the road”, “The speed limits don’t affect me”. These responses show that despite drivers having adequate knowledge about road safety and the measures put in place by RTSA they have poor attitudes towards those measures and show that they have no intention of following them. Such negative attitudes are what influence the incidence of RTAs in Zambia.

### **Drivers Practices**

When it comes to drivers behaviors on the road drivers it was observed that a high number of PSV drivers where reckless on the road. Some of the common practices included beating traffics or not stopping at all even if the traffic lights where red. The common practices among ordinary drivers according to the findings was the use of mobile phones while driving. When the drivers where observed it was noted that a less than half of the PSV driver participants drove while using their mobile phones while majority of the observed ordinary drivers used their mobile phone while driving. Drunk driving was also a common practice among drivers as seen in the study results. Such practices are dangerous for both the drivers as well as other road users. Over speeding was also observed among drivers during the early hours because it is at this time that most drivers rush for work. The findings in table 5 shows that some of the reasons for accidents among the drivers was over speed when rushing for work, drunk driving and trying to beat the traffic lights. All these show that the causes of RTAs among drivers is not a lack of knowledge but as a result of poor attitude and practices among drivers in Zambia. This finding are similar to the finding of Jothula et al, (2020), S. Nath et al, (2022) who in their studies established that despite the participants being aware of the road safety regulations, the drivers did not put them into practice.

## **5.2 STUDY LIMITATIONS**

- Some participants withdrew because they were busy to participate in the study.
- Some participants were unwilling to participate in the study because they were afraid of confidentiality issues.
- The qualitative approach is subjective not easy to determine what is true and false from a participants response.

## CHAPTER 6

### 6.0 CONCLUSION

The objective of this research was to determine the knowledge attitude and practices of drivers in Chalala towards the road safety measures put in place by RTSA. Before. This research shows that all relevant authorities in charge of road safety like RTSA and Zambia police have a great responsibility in ensuring Safety on the roads and regulation of behaviors of drivers. However, there are poor attitudes among both PSV and ordinary drivers regarding road safety and bad road user behavior showing that there is negligence and negative attitudes towards road safety as well as the law enforcers of these measures. Reckless driving and traffic violations are behaviors that remain prevalent among drivers. Drunk driving and speeding have been identified as some of the major contributory factors to rising RTAs. It is true that RTSA has paved the way for correct behavior of road users and better knowledge of drivers. However, it would be wrong to say that these efforts have led to a significant decrease in RTAs. This is because despite their efforts the country still records high numbers of RTAs which causes concern among the road users as well as the traffic officers as well.

This study revealed that there is adequate knowledge on road safety among drivers, however the concern is on the driver's poor attitude and practices towards these measures. These findings agree with the findings of Ranjan et al. (2018), Tun (2019), Timmermans et al. (2022) and RTSA (2021) who in their studies all established that drivers had the knowledge regarding road safety but their attitude and practices were poor. Which means more emphasis should be directed towards improving drivers' attitude and practices regarding road safety.

### 6.1 RECOMMENDATIONS

#### **Image building**

RTSA and Zambia police should improve their public image because road users don't see them as law enforcers or safety officers but rather as enemies or unnecessary nuisances, who only want money from the drivers. It's important that they work on their approach to dealing with those that do not abide by the road rules and find a more acceptable ways of charging law breakers such as the use of tickets that drivers need to pay for or, risk their vehicle been impounded.

### **Mandatory Driving School Attendance**

There is need for a policy with the aim of making it mandatory for all drivers to attend driving school and not be allowed to get a driving license with attending one and being properly examined to ensure that people with appropriate skills are on the road.

### **Follow-up Measures**

The Road Transport and Security Agency has introduced a series of measures to reduce the RTAs in the country. That is why the agency must plan well thought-out follow-up measures to check whether the measures and interventions undertaken are bearing the desired outcomes. Some follow up measures include increased road patrols on many roads in order to prevent speeding and apprehend those that could possibly be risks to their fellow road users, such as drunk drivers.

### **Sensitization**

Driver education and awareness cannot be overemphasized. As only education can change people's attitudes. RTSA and the Zambia police including all relevant government partners must come up with more innovative and effective ways of delivering messages on road safety in order to motivate and encourage drivers to adopt and have positive attitudes and improved road safety practices.

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## Appendix

### WORK PLAN

ACTIVITY	2022 AUG	2022 SEP	2022 OCT	2022 NOV	2022 DEC	2023 JAN	2023 FEB	2023 MAR	2023 APR	2023 MAY
Proposal submission										
Preparation of tools and assistants										
Data collection										
Data analysis										
Dissertation writing										
Dissertation submission										

## BUDGET

Budget Category	Unit Cost (k)	Multiplying Factor	Total Cost
<b>1. Personal</b>	<b>Dairy wage &amp; per diem</b>	<b>Number of staff &amp; days</b>	
- Researcher	80	1 x 7 days	560
- Assistant	50	1 x 7 days	350
		<b>Sub total</b>	<b>910</b>
<b>2. Transport</b>			
- 60 for researcher		4 days	240
- 50 per assistance		1 x 10 days	500
		<b>Sub Total</b>	<b>740</b>
<b>3. Supplies and stationery</b>	<b>Cost per item</b>	<b>Number of items</b>	
- Photocopying	- 1.0 per page	3pages	3
- Pens	- 5	4	20
- Pencils	- 2	3	6
- Printing	- 4	55	220
- Binding	- 30	2	160
- Data storage devise (flash disk)	- 150	1	150
		<b>Sub Total</b>	<b>559</b>
<b>Total</b>			<b>2,209</b>
10% incidentals			220
<b>GRAND TOTAL</b>			<b>2,429</b>

## INTERVIEW GUIDE

- 1) What do you know about road safety?
- 2) Do you know anything about what RTSA recommends for drivers to do to their vehicles before they start driving? If yes, what do you know?
- 3) How do you feel about the reduction of most speed limits on many roads?
- 4) Where did you learn how to drive?
- 5) I have a list of road signs that I would like you to identify and tell me what each one means.
- 6)

### Traffic Signs



(Englishgrammarhere, 2020)

- 7) Have you ever been involved in an accident? If yes, what caused the accident?
- 8) How do you feel about police/RTSA road blocks and speed traps?
- 9) Have you ever been confronted or stopped by the Police/RTSA? If yes what led to such a confrontation?

Note: Not all questions are included in this interview guide because they will be based on the interviewee's response to the questions above.

## OBSERVATIONAL STUDY GUIDE

- 1) Vehicles that stop or slow down at junctions and stop signs

- 2) Drivers that buckle up their seat belts while driving.
- 3) Obey traffic rules and signs by drivers.
- 4) Obey speed limits by drivers.
- 5) Use their mobile phones while driving.
- 6) Drivers who drink and drive.
- 7) Reckless drivers.
- 8) Being courteous to other road users.

**SCHOOL OF MEDICINE AND HEALTH SCIENCES LEOPARDS  
HILL CAMPUS**

Plot No. 37413, Off Alick Nkhata Mass Media. P. O Box 36711, Lusaka.  
Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850,961917862,  
E-mail:unilus@zamnet.zm,ictar@zamnet.zm

**SCHOOL OF MEDICINE AND HEALTH SCIENCES  
RESEARCH ETHICS COMMITTEE**

Ref no: IORG0010092-2023/020

Date: 15<sup>th</sup> DECEMBER, 2022

EVARISTO PHIRI - BSPH19216910

**Re: RESEARCH TITLE: KNOWLEDGE, ATTITUDE AND PRACTICES OF MOTOR VEHICLE DRIVERS TOWARDS THE ROAD TRANSPORT AND SAFETY AGENCY'S ROAD SAFETY MEASURES: A CASE STUDY OF CHALALA AREA, LUSAKA**

The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS Research ethics committee
2. Approval from the Lusaka District health Management or equivalent health authorities should be sought.
3. The study tools should be added.
4. An informed consent form should be attached and filled by all study participants (If dealing with primary data)
5. The risks and benefits should be included in the consent form.
6. Ensure before commencement that approval is sought from ZNHRA

Congratulations and the committee wishes you success in your work.



Prof Kasonde Bowa  
MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)  
Chairman- UNILUS REC

**SCHOOL OF MEDICINE AND HEALTH SCIENCES LEOPARDS  
HILL CAMPUS**

Plot No. 37413, Off Alick Nkhata Mass Media. P. O Box 36711, Lusaka.  
Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850,961917862,  
E-mail: unilus@zamnet.zm, ictar@zamnet.zm

Date: 15<sup>th</sup> DECEMBER, 2022

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.....  
.....  
**PERMISSION FOR EVARISTO PHIRI - BSPH19216910 TO CONDUCT A RESEARCH  
STUDY AT YOUR FACILITY/ INSTITUTION/ORGANIZATION**

Reference is made to the above subject matter

The University of Lusaka, School of Medicine and Health Sciences here by requests for permission for **EVARISTO PHIRI** Public Health Student to conduct research at your facility/ institution/ organization, entitled; **KNOWLEDGE, ATTITUDE AND PRACTICES OF MOTOR VEHICLE DRIVERS TOWARDS THE ROAD TRANSPORT AND SAFETY AGENCY'S ROAD SAFETY MEASURES: A CASE STUDY OF CHALALA AREA, LUSAKA**. The research is in partial fulfillment of the requirements for the degree of Bachelor of Science Public Health. This is purely for academic purposes and information gained in such a way will not be used in the public domain without prior authorization from the institutions/ organizations involved.

The research topic has been cleared by the University of Lusaka, School of Medicine and Health Sciences Research Ethics Committee as per the attached copy. Data collection is expected to be done from **1<sup>st</sup> January, 2023 to 31<sup>st</sup> March, 2023**.

The University of Lusaka avails itself of this opportunity to review to your office the assurances of its highest considerations and looks forward to your timely and favorable response.



Prof Kasonde Bowa  
MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)  
Chairman- UNILUS REC  
Professor of Urology and Consultant Urologist  
Executive Dean University of Lusaka and University Teaching Hospital School of Medicine and Health Sciences.



## NATIONAL HEALTH RESEARCH AUTHORITY

Lot No. 18961/M, off Kasama Road, Chalala, P.O. Box 30075, LUSAKA  
Tell: +260211 250309 | Email: [znhrasec@nhra.org.zm](mailto:znhrasec@nhra.org.zm) | [www.nhra.org.zm](http://www.nhra.org.zm)

Ref No: NHRA00003/2/01/2023

Date: 24<sup>th</sup> January 2023

The Principal Investigator,  
Evaristo Phiri,  
UNILUS,  
Lusaka, Zambia.

Dear Mr Phiri,

### **Re: Request for Authority to Conduct Research**

The National Health Research Authority is in receipt of your request for ethical clearance and authority to conduct research titled “**Knowledge, Attitude And Practices Of Motor Vehicle Drivers Towards The Road Transport And Safety Agency’s Road Safety Measures: A Case Study of Chalala Area, Lusaka.**”

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA bi-annually from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,  
Acting Director/Chief Executive Officer