

**ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES OF FIRST AID SERVICE PROVISION ASSOCIATED WITH ROAD TRAFIC ACCIDENTS AMONG TAXI DRIVERS IN ADDIS ABABA, ETHIOPIA**



**A THESIS TO BE SUBMITTED TO ADDISABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, DEPARTEMENT OF EMERGENCY MEDICINE FOR PARTIAL FULFILMENT OF THE REQUIRMENTS FOR DEGREE OF MASTER IN EMERGENCY MEDICINE AND CRITICAL CARE**

**BY: Neway Getahun (BSC)**

**ADVISORS: Dr. Tigist Bacha (MD, MPH)**

**Kibatu Gebre (BA, BSC, MSC )**

**JUNE, 2015**

**ADDIS ABABA, ETHIOPIA**

## **ABSTRACT**

### **BACKGROUND**

In Ethiopia traumatic injuries are one cause of morbidity and mortality. The largest proportion of serious injuries in Ethiopia comes from road traffic accidents; they have become one of the major national health burdens. According to our observation in Ethiopia most of the trauma victim of motor traffic accident is being handled by taxi driver, however limited first aid knowledge of first aid care have been observed from the taxi driver.

**Objective:** To assess Knowledge, attitude, and practices of first aid service provision associated with road traffic accident among taxi drivers in Addis Ababa, Ethiopia.

**Methods:** - cross-sectional study was carried out among Taxi drivers in Addis Ababa Ethiopia. A Multistage sampling technique was used on 400 taxi drivers. The questionnaires were first prepared in English then it was translated to Amharic. To check the validity of the questionnaires, a pilot test was conducted. Data was collected by distributing questionnaires to taxi driver. SPSS version 20 was used for data entry and analysis.

**RESULT:**-All participants were males. 345(86.3%345) were not trained first aid before. 50 %( n=200) understood that, first aid during RTA given by taxi drivers. Participants were asked to prioritize first aid concepts but only 126(31.5%) taxi drivers were correctly reply and seeing that breathing maintenance as first aider. 95.5% (n=382)had interest to train first aid. 22.3% (n=89) were responded as application of alcohol is important to stop severe on-going bleeding. Only 39.5 %( n=158) participants attended to RTA victim.

**CONCLUSION:**-Taxi drivers who participated in this study had considerable knowledge, attitude and skill gaps. This had serious implication in increasing preventable mortalities and disabilities caused by road traffic accidents so that first aid training and preparing guidelines that will assist the taxi drivers to perform his immediate lifesaving activities thoroughly and effectively is mandatory.

## **ACKNOWLEDGEMENT**

First and foremost my deep appreciation goes to MY LORD and then to advisors Dr. Tigist Bacha and Ato kibatu Gebre , for their assistance, constructive comments and suggestion for my proposal and research report.

My heartfelt thanks go to Addis Ababa University School of Medicine College of health science, department of emergency medicine instructors and all my classmates for their constructive comments, sharing of ideas and suggestion throughout a research report.

At Last, but most certainly not least, my appreciation goes to my wife, W/o Alem Asegdew, for her psychological support throughout the preparation of the proposal paper and research report

# Table of content

|  |           |
|--|-----------|
| ABSTRACT .....                                       | i         |
| ACKNOWLEDGEMENT.....                                 | ii        |
| List of table and figure .....                       | v         |
| LIST OF ACRONYMS.....                                | vi        |
| CHAPTER ONE .....                                    | 1         |
| 1. INTRODUCTION.....                                 | 1         |
| 1.2 STATEMENT OF PROBLEM .....                       | 3         |
| 1.3 SIGNIFICANCE OF THE STUDY .....                  | 4         |
| CHAPTER TWO .....                                    | 5         |
| LITRATURE REVIEW.....                                | 5         |
| 2.1 GLOBAL ROAD TRFFIC ACCIDENT.....                 | 5         |
| 2.2 ROAD TAFFIC ACCIDENT IN DEVELOPING COUNTRY ..... | 5         |
| 2.3 ROAD TRAFFIC ACCIDENT IN ETHIOPIA.....           | 7         |
| 2.4 PRE-HOSPITAL CARE .....                          | 8         |
| 2.5 Laws regarding Road traffic accidents .....      | 9         |
| CHAPTER THRE.....                                    | 10        |
| 3. OBJECTIVE .....                                   | 10        |
| 3.1 GENERAL OBJECTIVE .....                          | 10        |
| 3.2 Specific objective:- .....                       | 10        |
| CHAPTER FOUR.....                                    | 11        |
| 4. METHDOLOGY.....                                   | 11        |
| 4.1. Study area .....                                | 11        |
| <b>4.2.1 Study design .....</b>                      | <b>12</b> |
| <b>4.2.2 Study period .....</b>                      | <b>12</b> |
| 4.3. Population.....                                 | 12        |
| <b>4.3.1 Source population:.....</b>                 | <b>12</b> |
| <b>4.3.2 Study population .....</b>                  | <b>12</b> |
| 4.4. Sample size and sampling method .....           | 12        |
| <b>4.4.1 Sample size.....</b>                        | <b>12</b> |
| <b>4.4.2. Sampling method.....</b>                   | <b>14</b> |
| 4.5. Variables .....                                 | 15        |

|  |           |
|--|-----------|
| <b>4.5.1 Dependent variable:</b> .....                 | <b>15</b> |
| <b>4.5.2 Independent variable:</b> .....               | <b>15</b> |
| 4.6 Inclusive and Exclusive criteria: .....            | 15        |
| 4.7. Data collection method and process .....          | 15        |
| <b>4.7.1 Data collection technique</b> .....           | <b>15</b> |
| <b>4.7.2 Data handling technique</b> .....             | <b>15</b> |
| 4.8 Data Analysis.....                                 | 16        |
| 4.9 Data quality assurance.....                        | 16        |
| 4.10 Ethical consideration .....                       | 16        |
| 4.11 Dissemination of result.....                      | 16        |
| 4.12 Operational definitions.....                      | 16        |
| CHAPTER FIVE .....                                     | 18        |
| RESULT .....   | 18        |
| KNOWLEDGE .....  | 19        |
| CHAPTER SIX .....                                      | 24        |
| DISCUSSION .....                                       | 24        |
| CHAPTER SEVEN.....                                     | 26        |
| CONCLUSION.....  | 26        |
| RECOMMENDATION .....                                   | 26        |
| LIMITATION.....  | 27        |
| REFERENCE.....   | 28        |
| Annex I:-    INFORAMATION SHEET AND CONSENT FORM ..... | 30        |
| ANNEX II.....  | 32        |
| ENGLISH QUESIONERE .....                               | 32        |

## List of table and figure

Pages

Fig.1 Figure shows multi stage sampling technique. ....14

Table 1 Frequency distribution showing socio-demographic characteristics among taxi drivers of Addis Ababa. February 2015 (n=400).....20

Table 2: Frequency distribution showing the knowledge of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400) .....21

Table 3: Frequency distribution showing the attitude of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400).....24

Table 4: Frequency distribution showing the practices of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400).....25

## **LIST OF ACRONYMS**

AU-African Union

CPR-Cardiopulmonary Resuscitation

CSA- Central Statistical Agency

DALYS-Disability Adjusted Life Year

EAR-external air resuscitation

FA - first aid

LMIC- low and middle income countries

RTA-Road Traffic Accident

RTC –road traffic collision

TAPHEMS- Tebita Ambulance and Pre-Hospital Emergency Medical Service

UNECA-United Nation Economic Commission for Africa

WHO –world health organization

# CHAPTER ONE

## ***1. INTRODUCTION***

First aid is the emergency care given to the sick, injured, or wounded before being treated by medical personnel. The term first aid can be defined as urgent and immediate lifesaving and other measures such intervention aims at reducing the pains or situations that threaten the victim until a professional arrives or the sick, individual is brought to a health facility (1).

Injury, an increasingly significant public health issue worldwide, accounts for up to 16% of the global burden of disease, with road traffic crashes, in particular, on the rise. By 2030, road traffic crashes are predicted to be the eighth-leading cause of death and fourth-leading cause of disability-adjusted life years worldwide [2,3].

Injury and deaths due to road traffic accidents (RTA) are a major public health problem in developing countries where more than 85% of all deaths and 90% of disability-adjusted life years were lost from road traffic injuries.[4] Trauma system development in high-income countries has reduced preventable deaths, including those from road traffic injuries, by 50% in recent decades. It is estimated that improved trauma systems in low- and middle income countries could avert one to two million deaths in severely injured patients (5)

In middle and upper-income countries, integration of pre hospital trauma life support and integrated emergency medicine and trauma care systems are responsible for marked reduction of morbidity and mortality following trauma.(6-9) A number of publications have advocated lay person assistance at the accident scene.(10)

In Ethiopia traumatic injuries are one cause of morbidity and mortality. The largest proportion of serious injuries in Ethiopia comes from road traffic accidents; they have become one of the major national health burdens. The health sector recognizes that injuries have multiple causes that necessitate a multi-sectorial approach towards effective prevention and rapid responses when they occur, including efforts to strengthen the quality and availability of emergency medical services. (11)

In 2007, researchers looking at the pattern of injuries in Addis Ababa found that injuries accounted for 27% of all emergency visits, 5% of all hospitalizations, and 3% of deaths. The findings from a community based survey in Jimma Zone in 2007 showed that prevalence rate of injury (serious enough to stop daily living or to need care or that was taken for care) was 8.9% per year; out of the 304 individuals studied (who had injuries Who came to a health unit with injuries), 83.5% had received health care at different levels of health facilities and 5.2% were admitted for inpatient care [11].

In Africa, 28.3 per 100,000 die in collisions. In Ethiopia, a country with a small vehicle population ratio, 95 deaths per 10, 000 vehicles were registered between 2007 and 2008. While this is the highest RTC rate among African countries, Moreover, Ethiopia is currently labelled as one of the most unsafe places to drive. Road safety has become a concern of government because of the need to address the worsening situation in RTC deaths, injuries and property loss(12).

A comprehensive emergency medical system includes not only a health facility based care for emergency cases but also a functional pre-hospital care that gives primary care for injuries at the accident scene and while transferring victims to health facilities. In Ethiopia road traffic accident injuries are normally transported to the nearest health centre for emergency medical care without any health professional care at the scene of the accident. Transportation of the accident victims are made by the vehicle involved in the accident, volunteer driver or ambulance if there is any around the accident scene. There is little medical care during transportation even when using ambulances for various reasons including lack of medical professionals. Tebita ambulance and pre-hospital emergency medical service (TAPHEMS) is the first private ambulance and emergency service of its kind in Ethiopia. TAPHEMS was established in November 2008. Tebita is licensed by The Addis Ababa Health Bureau to provide emergency pre-hospital medical services and more over issuing certified training on First Aid and Health Safety [13].

## 1.2 STATEMENT OF PROBLEM

Injury is one of the most leading causes of mortality and morbidity leading to avoidable death and disability worldwide, where by 90% of all death is from developing countries. However figures vary according to region. Worldwide, 1.2 million people die annually and about 50 million are seriously injured on road accidents. All these need initial assessment, fast and accurate lifesaving of the injured person on the scene before being taken to hospital or trauma centre [14].

The most economically active people (aged 15–59) are at the greatest risk of dying as a result of road accidents. For this age group, road traffic accidents affected more than three times as many males as females. Overall, 5% of deaths among males aged 15-59 are attributable to road traffic accidents, but this percentage rises to 6.5% for males in the 15-29 age group in Sub-Saharan Africa[15].

Ethiopia has the highest rate of RTAs, owing to the fact that road transport is the major transportation system in the country. The Ethiopian traffic control system archives data on various aspects of the traffic system, such as traffic volume, concentration, and vehicle accidents. With more vehicles and traffic, the capital city of Addis Ababa takes the lion's share of the risk, with an average of 20 accidents being recorded every day and even more going unreported [16]. Reports from Addis Ababa Traffic Police Central Bureau the statistical data show the following; In Addis Ababa City, annual average traffic accident growth had been 8.75 for the years 2000 to 2005, which is One – third of the whole of accidents register in Ethiopia on the same years. 288 lives and 15,850,618.5 amounts in ETB, lost on an average from 1996 to 2005. However, it is often possible to minimize injury and crash consequences by providing effective pre-hospital services promptly. In most low-and middle-income countries (LMICs), transportation of road traffic victims, is usually provided by relatives, taxi drivers, truck drivers, police officers and other motorists [17].

Frequently the first person on the scene is likely to be another driver, and may prove to be the ideal population to be singled out for training. This study focuses on intercity drivers because it accounts for a large number of drivers, routes and population movement and therefore may represent the greatest opportunity for road traffic accident care intervention[18].

According to different researches which were done worldwide road traffic accidents are a common health problem and kill a lot of people so it needs fast and lifesaving first aid action. And in Africa road traffic accidents are the common health problems and are substantial causes for morbidity and mortality. In Ethiopia there was no study done on assessment of knowledge, attitude and practices of first aid service provision associated with road traffic accidents among taxi drivers in Addis Ababa. This paper which was conducted on taxi drivers of Addis Ababa tries to assess the gap of first aid knowledge, attitude and practices of taxi drivers and that used for intervention.

### **1.3 SIGNIFICANCE OF THE STUDY**

The study explores knowledge, attitude and practices of taxi drivers on pre-hospital care to trauma patients. The data obtained in this study, will be expected to be used by AA transport authority to plan for improvement of knowledge and quality care of trauma and accident victims prior to be transferred to health care facilities or trauma centre. The study may impose to get first aid training before taking road traffic licence.

In addition, the AA health office and possibly, at the national level will utilize the findings of this study for planning health care delivery to RTA victims.

The first person attending road traffic accidents is likely to be taxi driver especially in Addis Ababa. This study focuses on taxi drivers because it accounts for a large number of drivers, routes and population movement and therefore may represent the greatest opportunity for road traffic accident care intervention.

This study will also provide baseline information to other researchers to work further research related issues

## **CHAPTER TWO**

### ***LITRATURE REVIEW***

#### **2.1 GLOBAL ROAD TRFFIC ACCIDENT**

According to the World Health Organization (WHO), globally 1.24 million people are killed in road traffic accidents each year and another 50 million are injured or disabled permanently. If trends in RTCs continue as they are now, it is estimated that road traffic deaths and injuries could rise 65% by 2020. Further, most of the deaths and injuries (80%) will occur in low- and middle income countries [19].

The morbidity and mortality resulting from accidents are greater than any other disease entity worldwide. Road-traffic accidents (RTA) account for a substantial part of these accidents and are the most common cause of fatality from accidents in most parts of the world (20).

Globally, more than a million people die each year from RTA and 20–50 millions are injured or disabled. A disproportionate number of victims are from younger age groups consequently causing an enormous loss of “potential life years” and negatively impacting the workforce. Road traffic accident injuries are the second leading cause of death—after AIDS [20, 21]. And studies have shown that the incidence is increasing. Of RTA, automobile accidents are the most common cause, followed by motorcycle related accidents [22, 23].

#### **2.2 ROAD TAFFIC ACCIDENT IN DEVELOPING COUNTRY**

A cross-sectional cohort study was conducted among commercial inter-city drivers in Nigeria. 11.4% had no formal education while (35.4%), (44.5%) and (3.5%) had primary, secondary and post-secondary school education respectively. (5.2%) did not indicate their level of education [18].

The mean driving experience of the participants was 26.1 years, ranging from 20 to 42 years. (86.4%) were making one trip per day while the remaining (13.6%) were making two trips per day. (15.7%) had witnessed RTA before; (10.0%) witnessing it once, (5.2%) twice and one respondent had witnessed RTA four times. 34.5% defined

first aid as what is done for the patient at the accident site. Others defined it as getting the patient to the nearest hospital or care site (9.6%), controlling bleeding (3.1%), providing oral hydration (2.6%), and giving medications such as Panadol (1.8%). The remaining participants were uncertain [18].

Participants were asked to prioritize the basic first aid concepts of breathing maintenance, haemostasis and fracture splinting. A majority (59.9%) correctly prioritized airway management first, while only 37.6% identified the correct order for all the three care areas. In relation to safe patient positioning after a traumatic event, (18.3%) believed placing the victim sideways, (75.1%) face-up position and (16.9%) believed face down positioning was best.

Related to wound management and haemostasis, (44.5%) believed a tourniquet should be used for on-going severe bleeding, (51.5%) believed a dressing and pressure should be applied and (4.0%) responded that the wound should be left alone. Considerations for fracture management (88.5%) believed splints could be used for obvious fractures while (7.0%) believed splints should not be used; (12.7%) were undecided. Unconsciousness was cited as the greatest indication to transport the patient to the hospital (58.5%). Others believed that traumatic wounds (8.7%) and fractures (5.2%) were representative of the need for hospital care. The cited first aid provided by the participants included pouring water on the victims (10.5%), stopping bleeding with compression or tourniquets (7.6%), applying wooden splints (3.5%) and calling the police (2.9%). Additional actions included “separating dead from the wounded and taking the wounded to the hospitals”, and “blowing air on them, placing them on a seat and taking them to the hospital”. 1.7% of the participants claimed to have abandoned the victims at the accident site while another (2.2%) said they took the patients to the police [18].

The result showed for the necessity to provide first aid for RTA patients, (80.3%) felt it was necessary. Of those who felt it was necessary, the majority felt it would help prevent unnecessary deaths and improve patient outcomes[18].

### **2.3 ROAD TRAFFIC ACCIDENT IN ETHIOPIA**

The construction of roads is one of the major focal areas of the government to fast-track economic growth. Although the vehicle population growth rate per annum is increasing, the number of total vehicles remains low compared to other developing countries. Currently road density and number of vehicles per 1,000 populations in Ethiopia are low compared with other African countries. [25]

Road traffic crashes pose a significant burden in Ethiopia, as is the case for other developing countries. Currently, developing countries contribute to over 90% of the world's road traffic fatalities[26]. According to the WHO, Ethiopia has the highest rate of fatalities per vehicle in the world. Uganda ranks second in road fatality rates in the world behind Ethiopia. Emergency medical systems are often poor and injury prevention programmes are rarely available [27].

In Ethiopia, like other developing countries, injuries are common but little attention is being given to this problem. One - year (July 2005-June 2006) retrospective descriptive study in Addis Ababa conducted were 40,752 out-patient department visits, of which 956 were hospitalizations with 35 deaths occurring as a results of injury which accounted for 27% of all emergency and 3% of all regular visits, 5% of all hospitalizations and 3% of deaths. The patients were predominantly young males. Even though falls were the commonest causes of unintentional injury, road traffic injuries were the main burden of the health facility being the commonest cause among young male and also accounted for 61% of injury related admission, 52% of injury related death, and leading cause of repeated visits. A total of 44% of unintentional injuries were categorized under 'other accidental causes', only 6 deaths were reported in the outpatient department, and the conditions of one third of the patients at discharge were not recorded [28].

According to Ethiopian police reported Six years (July 2005 - June 2011) of police-reported crash data were analysed, consisting of 12,140 fatal and 29,454 injury crashes

on the country's road network. The 12,140 fatal crashes involved 1,070 drivers, 5,702 passengers, and 7,770 pedestrians, totalling 14,542 fatalities, an average of 1.2 road user fatalities per crash [28].

## **2.4 PRE-HOSPITAL CARE**

Generally, the best way to reduce rates of death or disability from life-threatening injuries is to prevent them. However, it is often possible to minimize the consequences of serious injury, including long-term morbidity or mortality, by promptly providing effective pre hospital care.

Deaths from severe injury occur in one of three phase's .They:

1. Occur immediately or occur quickly as a result of overwhelming injury;
2. Occur during the intermediate or sub-acute phase. These deaths occur within several hours of the event and are frequently the result of treatable conditions;
3. Are delayed. Deaths during this phase often occur days or weeks after the initial injury and are the result of infection, multisystem failure or other late complications of trauma. Many fatal injuries may be prevented or their severity reduced by adequate pre hospital trauma care.

The major benefits of pre hospital care are realized during the second phase of trauma, when the timely provision of care can limit or halt the cascade of events that otherwise quickly leads to death or lifelong disability. Without pre hospital care, many people who might otherwise survive their injuries may die at the scene or en route to the hospital.

Most deaths in the first hours after injury are the result of airway compromise, respiratory failure or uncontrolled haemorrhage. All three of these conditions can be readily treated using basic first aid measures. Prompt pre hospital care may also prevent a number of delayed deaths from trauma. Measures that are useful for preventing deaths in this phase include proper wound and burn care, adequate immobilization of fractures, support of oxygenation and blood pressure during the first hours after a traumatic brain injury, as well as other measures that reduce the likelihood of complications developing later. Deaths occurring in the first, immediate

phase of injury cannot be directly prevented by improving the quality of pre hospital care and hospital-based emergency care, but an organized system of care may support injury prevention efforts by systematically collecting data that are useful for implementing prevention programmes, such as identifying high risk settings, high-risk behaviours, high-risk products and high-risk groups(29).

Unfortunately, most of the world's population does not have access to pre hospital trauma care. In many countries, few victims receive treatment at the scene and fewer still can hope to be transported to the hospital in an ambulance. Transport, when it is available, is usually provided by relatives, untrained bystanders, taxi drivers or truck drivers, or a police officer. As a result, many victims may needlessly die at the scene or during the first few hours following injury [29].

### **2.5 Laws regarding Road traffic accidents.**

There should be some clear regulation and legislation addressing the issue of who is or who is not responsible if when a first-aid provider takes action at the scene of an accident and there is a poor outcome. It can be the fear of impending legal action that can deter the first-aid providers from attempting to help those in need of care[30].

## **CHAPTER THREE**

### ***3. OBJECTIVE***

#### **3.1 GENERAL OBJECTIVE**

Assessment of Knowledge, Attitude and Practices of First Aid Service Provision Associated With Road Traffic Accidents among Taxi Drivers in Addis Ababa, Ethiopia

#### **3.2 Specific objective:-**

- to determine the Knowledge of taxi driver to ward first aid related to road traffic accident in Addis Ababa Ethiopia
- to determine the Attitude of taxi driver to ward first aid related to road traffic accidents in Addis Ababa Ethiopia.
- to determine the Practice Of taxi driver to ward first aid related to road traffic accidents in Addis Ababa Ethiopia.

## **CHAPTER FOUR**

### ***4. METHODOLOGY***

#### **4.1. Study area**

According to the 2007 national census, the population of Ethiopia has reached 73,909,355 of which urban population was 11,956,170 accounting for 16.1% of the total population. Having a growth rate of 2.1%, the population of Addis Ababa was 2,738,248 which accounted for 32.27% of the total urban population of the country CSA (31). The expansion of the city, increasing population size coupled with the economic growth has required respective transport service supply for the increasing mobility needs of the People.

The city's population is estimated to be 3 million. With the current population growth rate of 2.1% the city population is estimated to reach 5 million after 10 years. Addis Ababa is exhibiting high social, economic structural and change is found to be a fast growing city. More than 70% of registered vehicles in the country are found in Addis Ababa. Taking into account Addis Ababa's fast growth and to enable the transport sector to play its required role, the Government has invested a huge resource to construct roads so as to expand the road network. An effort has been made to improve the transport service provisions. Public transport is through public buses from Anbessa City Bus Service Enterprise or blue and white share taxis. The taxis are usually minibuses that can seat at most twelve people. Two people are responsible for each taxi, the driver and a weyala who collects fares and calls out the taxi's destination (32).

According to transport authority, the total number of mini bus taxis that work daily account 6,500 (33). The city transport office has also assigned taxi operators at designated areas in order to alleviate transportation problems the public is facing.

According to the plan, the city is divided into five taxi zoning areas: Tor-Hailoch (southwest area), Saris (southeast area), Bole (east area), Megenagna (northeast area), and Asko (western edge of the city). Each zone has a specific number of routes. Tor-Hailoch has 24 routes, Asko 42, Megenagna 56, Bole 37, and Saris 31 [32].from the above five zones, Bole and Megenagna Taxi zones of Addis Ababa were the study areas.

#### 4.2.1 Study design

A cross-sectional, quantitative study was conducted.

#### 4.2.2 Study period

The study was carried out from NOV 2014 to JUNE 2015 in which the actual data collection was held from JAN 2015.

#### 4.3. Population

##### 4.3.1 Source population: -

All drivers of Addis Ababa.

##### 4.3.2 Study population

All minibus taxi drivers who were currently providing public service in Addis Ababa whose driving experience is >1year.

#### 4.4. Sample size and sampling method

##### 4.4.1 Sample size

Sample size was calculated using sample size determination for single population proportion. The following formula was used to estimate the minimum number of taxi drivers required for the study.

$n = \frac{(z\alpha/2)^2 p(1-p)}{W^2}$  where N=maximum sample size to represent large population

$W^2$

D2

Z=with 95%confidence level (Z=1.96 )

D= margin of sample error

Where  $z\alpha/2$  (critical value) =1.96 for 95% CI,

p=50% since it was unknown; d= 0.05

$$n = \frac{(1.96)^2 * 0.5(1-0.5)}{(0.05)^2}$$

$$n = \frac{(3.8416) * (0.25)}{0.0025}$$

$$n_0 = 384$$

Population correction factor if the population is less than 10,000

$$n_0 = 384$$

N-the total number of taxi drivers (6500)

$n_f$  = sample desired from finite population,

$$n_f = \frac{n_0}{1 + \frac{n_0}{N}}$$

$$1 + \frac{n_0}{N}$$

N

$$n_f = 363$$

Then add 10% of 363=37

$$363 + 37 = 400$$

4.4.2. Sampling method

Multistage sampling technique was used to identify those participants of the study

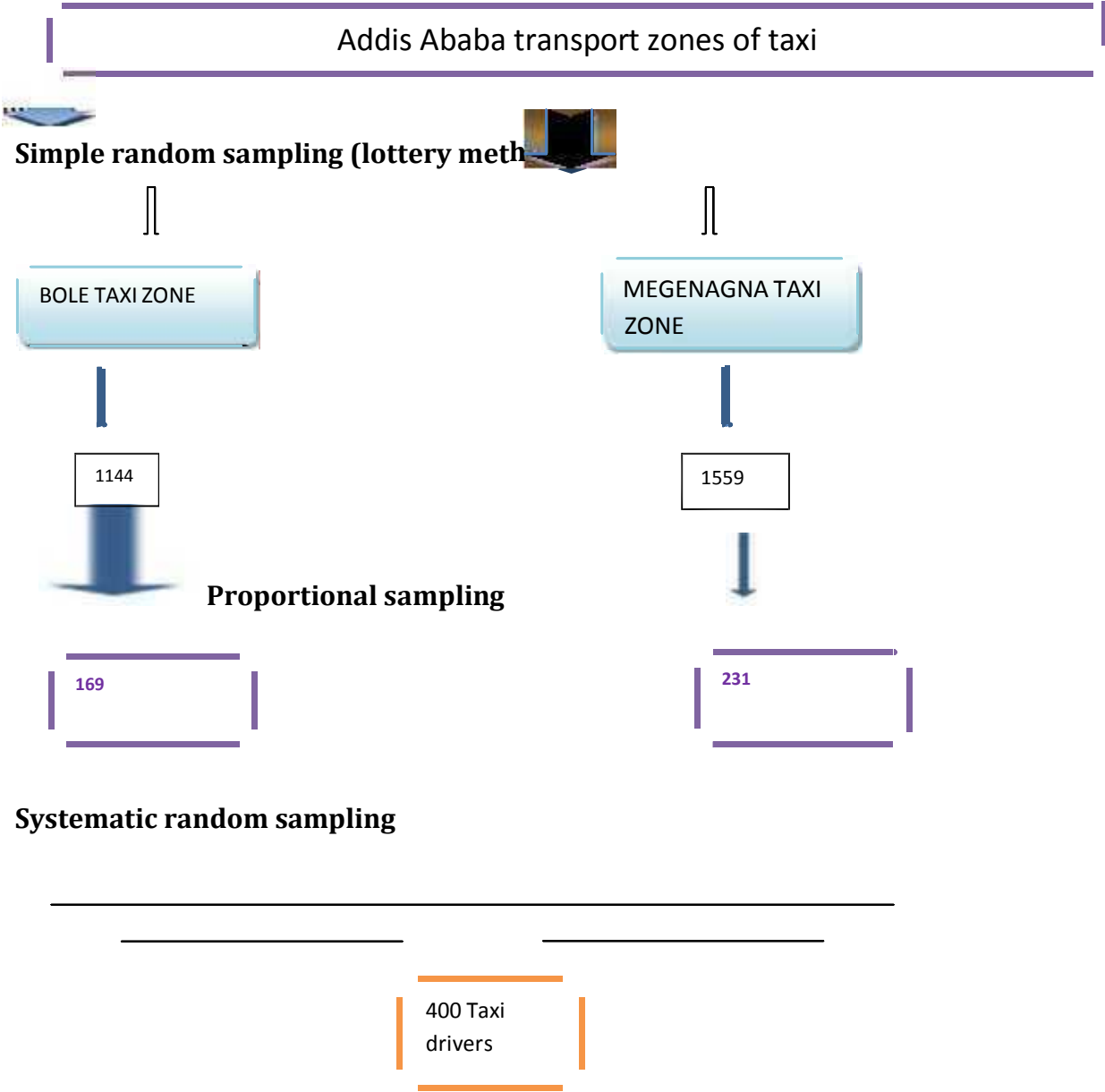


Fig. 1 Figure shows multi stage sampling technique

## **4.5. Variables**

### **4.5.1 Dependent variable:**

1. Knowledge of taxi driver about the component, sign and management of first aid related to road traffic accident.
2. Attitude of taxi driver to ward patient with road traffic accident and their willingness to provide first aid at scene.
3. Practice of the taxi driver in assisting patients with road traffic accident.

### **4.5.2 Independent variable:**

- Age, sex, service year, marital status, educational status, and first aid training status.

**4.6 Inclusive and Exclusive criteria:** taxi driver who have greater than one year experience are inclusive and those exclusive criteria's are

- Taxi driver who have less than one year experience
- Other public service drivers or drivers owing private car
- Absent drivers at the time of data collection due to different social reason
- Drivers that could be none volunteer to participate in the study

## **4.7. Data collection method and process**

### **4.7.1 Data collection technique**

There were three data collectors, their educational level is graduated nurse and who know Amharic language and they were trainees on data collection for one day. The questioners first prepare in English then it is translated in local language that is Amharic. To check the validity of the questionnaire a pilot test was conducted. Data was collected by distributing questioner to taxi driver.

### **4.7.2 Data handling technique**

The collected data was checked for clarity and completeness. The soft copy of the data was stored on hard drive and back up copy was stored on separate drive. Data was entered and organised using SPSS version 20.0.

#### **4.8 Data Analysis**

The collected data was coded, cleaned entered and analysed using SPSS version 20.0 and results were described using percentage and frequency table.

#### **4.9 Data quality assurance**

Data were collected by standardized questionnaire which was adopted and modified as in our situation before the actual data collection. Field testing of methods and data collection tools (questionnaires) were pre-tested. Quality assurance measure was undertaken during questionnaire designing, data collection and data management process. Each questionnaire was reviewed daily by supervisors to check for completeness. Finally careful cleaning and coding of the data was performed.

#### **4.10 Ethical consideration**

Recommendation and Ethical clearance was obtained from the ethical review board of Addis Ababa University department of emergency medicine prior to the actual data collection procedure. All the rights of the respondents were clearly stated in the questionnaire to be delivered for them and Privacy will be kept. The respondent was highly secured and well informed about this and the purpose and significance of this study and requested to cooperate for questioner through written consent. Taxi driver Names was not written in the questioner.

#### **4.11 Dissemination of result**

The finding information was disseminated to other areas.

#### **4.12 Operational definitions**

**Taxi driver:**-someone who drives a mini bus taxi for a living in Addis Ababa.

**Firs aid:** - is the immediate treatment or care given to a person suffering from an injury from RTA until more advanced care is provided or the person recovers.

**Road traffic accident:**-an accident occurs when vehicles collide with other vehicles, with pedestrian and with other stationary obstacles.

**Knowledge about first aid:**-knowledge about component of first aid ,sign and management of respiratory problem ,management of bleeding and bone fracture victim, position of the victim during road traffic accident and transportation of victim. Above the mean considered as good knowledge about first aid and below the mean considered poor knowledge with a response category of (yes=1)and (no=0)

**Attitude about first aid:** - willingness to provide first aid at scene and believe on necessary of giving first aid immediately at scene. Above the mean considered as good attitude about first aid and below the mean considered poor attitude with a response category of (yes=1)and (no=0)

**Practice about first aid:** - have a trend of road traffic accident and what action was taken during victim with respiratory problem, heavy bleeding and neck injury and bone fracture. Above the mean considered as good practice about first aid and below the mean considered poor practice with a response category of (yes=1)and (no=0)

**INJURY;**-is unintentional damage resulting from acute exposure to RTA leading to trauma any time.

**Pre hospital care;**- is the care given to trauma victims at the scene, before and during transporting victims to health facility, and just before victims are received at the health facility with the purpose of stabilizing patients before definitive care.

## CHAPTER FIVE

### RESULTS

#### RESULTS SOCIO-DEMOGRAPHIC CHARACTERISTICS

From the total participants, the response rate was 100%. All taxi drivers were males. From the total respondents, 195(39.3%) were in the age interval of 18-31 years. The mean age was 33.74 with  $\pm$ SD 8.57. Educational background of most of them 220(55%) were secondary school whereas primary school constituted 58(14.5%) of the respondents. Regarding to marital status 190(47.5%) were single, and 10(2.5%) were widowed. only 55(13.8%) were trained for first aider at different area. Regarding to trip per day most of them 230(57.5%) were 1-10 trip move per day, whereas 170(42.5%) were >10 trip per day. From the total respondents 150(37.5%) witnessed RTA $\geq$ 3 times and 110 (27.5%) didn't witness.

Table 1: Frequency distribution showing socio-demographic characteristics among taxi drivers of Addis Ababa. February 2015 (n=400)

| characteristics    |                 | frequency | %    |
|--------------------|-----------------|-----------|------|
| Age                | 18 -31          | 195       | 48.8 |
|                    | 32 -45          | 167       | 41.8 |
|                    | >45             | 38        | 9.5  |
| Gender             | Male            | 400       | 100  |
| Year of experience | 2-5yr           | 157       | 39.3 |
|                    | 6-10yr          | 141       | 35.3 |
|                    | >10yr           | 102       | 25.5 |
| Educational status | primary         | 58        | 14.5 |
|                    | secondary       | 220       | 55   |
|                    | Post- secondary | 122       | 30.5 |
| Marital status     | married         | 184       | 46   |
|                    | Single          | 190       | 47.5 |
|                    | widowed         | 10        | 2.5  |
|                    | divorced        | 16        | 4    |
| First aid training | yes             | 55        | 13.8 |
|                    | no              | 345       | 86.3 |
| Trip per day       | 1-10            | 230       | 57.5 |
|                    | >10             | 170       | 42.5 |
| RTA witnessed      | 1               | 77        | 19.3 |
|                    | 2               | 63        | 15.8 |
|                    | 3 & >3          | 150       | 37.5 |
|                    | no              | 110       | 27.5 |

## KNOWLEDGE

Among the participants, 185(46.3%) had a good knowledge on how to give first aid during RTA, while the other respondents 215(53.8%) have no or poor acquaintance about it. Large number of the participants 314(78.5%) believed that first aids are afford and provide immediately during RTA. Along with the participants, 200 (50%) understood that, first aid during RTA given by taxi drivers. Participants were asked to prioritize first aid concepts but only 126(31.5%) taxi drivers were correctly reply and seeing that breathing maintenance as first aider.

From 400 participants, 275(68.8%) were considered stridor, fast and slow breathing as a sign of air ways problems. Out of 400 participants 154(38.5%) thought they didn't know how to open the air way. 47(11.8%), they didn't know how to give breath for a victims.

Regarding to safe position for a patient after a traumatic event.116(29%) they didn't know the position for a patient after a traumatic event, 42(10.5 %) were placing the victim sideways, 201 (50.3%) keep the patient face up position.

In case of sign of bleeding from the injured site 251 (62.8%) said they didn't know. the rest did answer correctly for the sign of bleeding. From 400 participant 169(42.3%) were apply tourniquet to stop sever bleeding, and 89(22.3%) were application of alcohol is important to stop severe on-going bleeding. followed by apply pressure and dressing which accounted 42(10.5%).

In Management of fracture were that 22(5.5%) were said splint should not be used while,

295 (73.8%) believed splint could be used for obvious fracture, and 83(20.8%) were they didn't know how to manage fracture.

Majority of the participants 203(50.3%) believed that unconsciousness was an indication of transport victims for hospital care followed by 95(23.8%) unconsciousness, traumatic wound and fracture were an indication of transport victims for hospital care.

**Table 2: Frequency distribution showing the knowledge of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400)**

| Characteristics                        |   | N   | (%)  |
|--|---|-----|------|
| First aid that was provided during RTA | immediately                             | 314 | 78.5 |
|  | In hospital                             | 75  | 18.8 |
|  | I don't know                            | 11  | 2.8  |
| FA provider during RTA                 | Health worker                           | 177 | 44.3 |
|  | Taxi driver                             | 200 | 50.0 |
|  | I don't know                            | 23  | 5.8  |
| Prioritized for first aid              | Breathing maintenance                   | 126 | 31.5 |
|  | Stop bleeding                           | 181 | 45.3 |
|  | Splinting fractures                     | 2   | 0.5  |
|  | all                                     | 8   | 2    |
|  | breathing maintenance and stop bleeding | 81  | 20.3 |
|  | Stop bleeding and Splinting fractures   | 2   | 0.5  |
| sign of air way problem                | Strider                                 | 32  | 8    |

|   |   |     |      |
|---|---|-----|------|
|   | Fast breathing  | 54  | 13.5 |
|   | Slow breathing  | 17  | 4.3  |
|   | all   | 275 | 68.8 |
|   | strider and fast breathing  | 18  | 4.5  |
|   | fast and slow breathing   | 4   | 1    |
| Procedure that used for to open air way             | Jaw trust   | 67  | 16.8 |
|   | Head tilt and chin lift   | 172 | 43.2 |
|   | I don't know  | 154 | 38.5 |
|   | Jaw trust and Head tilt and chin lift                                   | 7   | 1.8  |
| Used for to give breath                             | Mouth to mouth  | 308 | 77   |
|   | Mouth to nose   | 37  | 9.3  |
|   | I don't know  | 47  | 11.8 |
|   | Mouth to mouth and Mouth to nose  | 7   | 2    |
| safe position for a patient after a traumatic event | Placing the victim sideways   | 42  | 10.5 |
|   | Keep the patient face up position.                                      | 201 | 50.3 |
|   | Keep the patient face down position.                                    | 4   | 1    |
|   | Keep the neck not move  | 31  | 7.8  |
|   | I don't know  | 116 | 29   |
|   | Placing the victim sideways & Keep the neck not move                    | 2   | 0.5  |
|   | Keep the patient face up position & Keep the neck not move              | 4   | 1    |
| sign of bleeding from the injured sight             | Bleeding from the injured site  | 251 | 62.8 |
|   | Victim become in shock  | 14  | 3.5  |
|   | Fast pulse and respiratory rate   | 23  | 5.8  |
|   | I don't know  | 89  | 22.3 |
|   | All   | 2   | 0.5  |
|   | Bleeding from the injured site & Victim become in shock                 | 17  | 4.3  |
|   | Bleeding from the injured site & Fast pulse and respiratory rate        | 3   | 0.8  |
|   | Victim become in shock and Fast pulse and respiratory rate              | 1   | 0.3  |
| Important to stop sever on-going bleeding           | Apply tourniquet  | 169 | 42.3 |
|   | Apply pressure and dress  | 42  | 10.5 |
|   | lift the injured part above the body level                              | 39  | 9.8  |
|   | apply alcohol   | 89  | 22.3 |
|   | Apply tourniquet and Apply pressure and dress                           | 41  | 10.3 |
|   | Apply pressure and dress and lift the injured part above the body level | 3   | 0.8  |
|   | Apply tourniquet and lift the injured part above the body level         | 6   | 1.5  |
|   | Apply tourniquet and apply alcohol                                      | 11  | 2.8  |

|  |                                     |     |      |
|--|-------------------------------------|-----|------|
| Management of fracture                   | Apply splint                        | 295 | 73.8 |
|  | Splint should not be used           | 22  | 5.5  |
|  | I Don't know                        | 83  | 20.8 |
| Indication to transport to hospital care | Unconsciousness                     | 203 | 50.3 |
|  | traumatic wound                     | 36  | 9    |
|  | fracture                            | 16  | 4    |
|  | I don't know                        | 29  | 7.3  |
|  | all                                 | 95  | 23.8 |
|  | Unconsciousness and traumatic wound | 11  | 2.8  |
|  | traumatic wound and fracture        | 5   | 1.3  |
|  | Unconsciousness and fracture        | 5   | 1.3  |

## RESULTS TOWARD ATTITUDE OF FIRST AID

Three hundred fifty three believed that it was necessary to provide first aid immediately for RTA patient at the scene, of 400 participants 327(81.8%) of them had willingness to provide first aid for RTA victim.

Fear of applying wrong treatment and causing harm; infection; and not knowing what to do are reasons of not willing to providing first aid in 27.4, 6.8, 26.1, % of the case respectively.

Among 400 participant 382(95.5%) had interest to train for first aider. One hundred eighty (45%) of them think lay people should be trained to give first aid, whilst others 192(48%) believe as anyone can give without trained.

Table 3: Frequency distribution showing the attitude of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400)

| Variable   |  | frequency | %    |
|--|--|-----------|------|
| Provide first aid immediately for RTA patient at scene?      | Yes  | 353       | 88.3 |
|  | No   | 30        | 7.5  |
|  | uncertain                                  | 17        | 4.3  |
| willingness to provide first aid for RTA victim              | Yes  | 327       | 81.8 |
|  | No   | 73        | 18.3 |
| If 'No', what is your reason?                                | Could apply wrong treatment and cause harm | 20        | 27.4 |
|  | Fear of infection                          | 5         | 6.8  |
|  | I don't know how to give first aid         | 19        | 26.1 |
|  | Fear of legal concern                      | 29        | 39.7 |
| Interest to train first aid                                  | Yes  | 382       | 95.5 |
|  | No   | 18        | 4.5  |
| Do you think lay people should be trained to give first aid? | Yes  | 180       | 45   |
|  | No   | 192       | 48   |
|  | uncertain                                  | 28        | 7    |

## PRACTICE OF FIRST AID

Out of 400 taxi drivers 158(39.5%) had attended to RTA victim and from this 133(84.2%) gave first aid and 25(15.8%) of them didn't give first aid. From those who gave first aid 17(12.8%) call to 939 or ambulance 66(49.6%) of them transfer to the nearest hospital, 40(30%) claimed they gave first aid, and 10(7.5%) transferred the victim to police station.

Among 158 participants, only 9(2.3%) of them had encountered a victim with air way problem. Of those who attend a victim with air way problem, 1 (11.1%) maintained the air way correctly and, 8(88.9%) did it the wrong way.

Among 158 participant 75(18.8%) had trend a victim with bleeds heavily and 325(81.3%) of them no trend. Who attend a victim with bleeds heavily 55(73.3%) of them apply pressure to stop bleeding and 15(20%) of them used tourniquet to stop bleeding. Regarding to attending a victim with neck injury 10(2.5%) of them had trend of neck injury, and 390(97.5%) of them didn't attend victim with neck injury. Who attended a victim with neck injury 5(50%) of them immobilized a victim and, and 4(40%) did nothing.

Thirty eight (9.5%) of them had trend victim with bone fracture. Those who attended a victim with bone fracture 27(71%) tie with wood and the other 5(13.2%) not move while the rest 6 (15.8%) did wrongly. From 400 participant 239(59.8%) didn't practice first aid at RTA.



**Table 4: Frequency distribution showing the practice of first aid measures among taxi drivers of Addis Ababa. February 2015 (n=400)**

| Variables                              |                            | frequency | %    |
|--|----------------------------|-----------|------|
| Have you ever attended to RTA victims? | yes                        | 158       | 39.5 |
|  | no                         | 242       | 60.2 |
| If 'yes', did you gave first aid?      | yes                        | 133       | 84.2 |
|  | no                         | 25        | 15.8 |
| If "yes", what was your first action?  | Call to 939 or ambulance   | 17        | 12.8 |
|  | Transfer to near hospital  | 66        | 49.6 |
|  | Give first aid             | 40        | 30   |
|  | Transfer to police station | 10        | 7.5  |
| trend victim with air way problem      | Yes                        | 9         | 2.3  |
|  | no                         | 391       | 97.8 |
| If 'yes', what did you do?             | I will correct             | 1         | 11.1 |
|  | Wrong answer               | 8         | 88.9 |
| trend victim with bleeds heavily       | Yes                        | 75        | 18.8 |
|  | no                         | 325       | 81.3 |
| If 'yes', what did you do?             | Close tightly              | 55        | 73.3 |
|  | tie                        | 15        | 20   |
|  | Wrong answer               | 5         | 6.7  |
| trend victim with neck injury          | Yes                        | 10        | 2.5  |
|  | no                         | 390       | 97.5 |
| If 'yes', what did you do?             | nothing                    | 4         | 40   |
|  | Not move                   | 5         | 50   |
|  | Wrong answer               | 1         | 10   |
| trend victim with bone fracture        | Yes                        | 38        | 9.5  |
|  | no                         | 362       | 90.5 |
| If 'yes', what did you do?             | Tie with wood              | 27        | 71   |
|  | Not move                   | 5         | 13.2 |
|  | Wrong answer               | 6         | 15.8 |

## CHAPTER SIX DISCUSSION

No similar studies evaluating the level of first aid KAP among taxi drivers in Addis Ababa or other city in Ethiopia exists so far. Our study showed that all taxi drivers were males. The mean age was 33.74 with  $\pm$ SD 8.57. Similar study conducted among commercial intercity drivers in Nigeria showed all participants were male with an average age of  $45.9 \pm 7.9$  (SD) years (18). When compared to the Nigerian, and the mean age of our study participants were younger.

This study showed that from 400 participants 19.3% had RTA witnessed once, 15.8% witnessed RTA twice, 37.5% had witnessed 3 or more and 27.5% of the participants no RTA witnessed. Similarly in Nigeria, 15.7% had witnessed RTA before 10% witnessed it once, 5.2% twice and one respondent had witnessed 4 times (18). In our study participants had more witness for RTA than drivers in Nigeria, and had a chance to give first aid for a victim.

In our study, the educational background of our respondents 220 (55%) were secondary school whereas primary school constituted 58 (14.5%) of the respondents. However in Nigeria, twenty six (11.4%) had no formal education while 81 (35.4%), 102 (44.5%) and 8 (3.5%) had primary, secondary and post-secondary education respectively (18). The present study showed that most of the participants were at the level of secondary school in contrast to the study done in Nigeria.

The study revealed that majority of the participants 78.5% believed that first aid should be given immediately during RTA at the scene, while 18.8% at hospital. However study in Nigerian taxi driver 63.8% believed first aid should be initiated as soon as possible at the scene while 14.4% believed after arriving at the hospital (18). This showed that first aid given to the victims during RTA in the hospital was almost similar with that of the Nigerian study. But the highest number of participants believed that first aid should be given immediately at the scene when compared to that of the Nigerian.

On the same study in Nigeria shows majority 59.9% corrected prioritized airways managements first (18). So the Nigerian study showed that more respondents gave prioritization for breathing maintenance than that of the respondents in my study.

On the same study in Nigeria considered for management of fracture 88.5% were splint could be used for fracture management and 7% believed splint not be used 12.7% undecided (18). In this study a proper application of splint usage for management of fracture was greater in the Nigerian study than this study.

Similar studies in Nigeria taxi driver suggested 44.5 %believed a tourniquet should be used for on-going sever bleeding. 51.5%belived a dressing and pressure should be applied and 4% responded that the wound should be left alone (18). This study is more or less similar in applying tourniquet to stop sever on going bleeding with that of Nigeria except the participants in this study responded in more percentage believed to use alcohol wrongly to control bleeding.

In this study the majority of participants 81.8% of taxi driver have willingness to provide first aid for RTA victims, the rest were not willingness to provide first aid. Among those respondents who were not willingness to provide first aid, the reason was 27.4% could apply wrong treatment and cause harm,6.8% fear of infection ,26.1% didn't know how to give first aid and 39.7% fear of legal concern. Similarly in Nigeria towards first aid 80% of them were agreed to provide first aid, of those who felt giving first aid was not necessary were that only experts are qualified to treat accident victims or that lay people might not know what to do, three believed that untrained people could apply wrong treatment and cause harm (18). The attitude of the present study and the Nigeria for willingness to provide first aid for RTA victims are similar; i.e. 81.8%, 80% respectively.

In this study, 45% of them think lay people should be trained to give first aid, 48%, and 7%no train and I didn't know respectively. However Nigeria study which revealed that 90% agreed 3.4% disagreed and 5.25% of the respondents were doubtful regarding the necessary of first aid training to lay people to provide first aid. 45% agreed that lay people should be trained to give first aid(18) .this study result was higher with finding of Nigerian study related to first aid training was not important for lay people.

In this study, 39.5%of the participants had attended to RTA victims before. From those participants attended RTA victims, 84.2% gave first aid and 15.8%of them didn't give first aid. From who gave first aid 12.8% call to 939 or ambulance, 49.6% transfer to near hospital 30% gave first aid and 7.5 % transfer to police station.

Similar study on taxi driver in Nigeria shows 80.7%participantes have attended to RTA victims before. While 19.3 % had not .for those previously attending to RTA victims ,16.2% said they gave onsite first aid before taking to hospital, 2.2%said took the patient to police ,1.7% of participant claimed to have abounded the victims at the accident site while another coming(18). The Nigerian study showed that more participants had attended to RTA victim and first aid practice than this study



## CHAPTER SEVEN

Taxi drivers who participated in this study have a considerable knowledge, attitude and skill deficiencies on first aid of trauma victims of RTA during pre-hospital care; this has serious implication in increasing preventable mortalities and disabilities caused by accidents and trauma.

This study argued that, the condition under which taxi drivers are expected to save lives of injured victims needs careful consideration, and suggested an urgent need for pre- and in-service training and support structure necessary to promote required knowledge, attitude and skills of taxi drivers.

However, this should go hand in hand 'with provision of working tools for assessment and care of trauma victims at the scene, including easy to read/follow guidelines that will assist the taxi drivers to perform his immediate lifesaving activities thoroughly and effectively

## RECOMMENDATION

- First Aid Kit should be available on every vehicle.
- Every candidate who seeks a driving license should also be educated in first aid in order for each driver would have a valid first aid certificate which is renewed every five years.
- Prepare Guidelines that will assist the taxi drivers to perform immediate lifesaving activities.
- Clear regulation and legislation addressing the issue of a first-aid provider takes actions at the scene. Because it can be the fear of impending legal action that can deter the first-aid providers from attempting to help those in need of care.

## LIMITATION

- There were a lack of similar studies conducted in our country ,and world wide



## **REFERENCE**

1. Federal Democratic Republic of Ethiopia Ministry of Health, First Aid Extension Package, Sep.2003 Addis Ababa
2. Mathers CD, Loncar D (2030) Projections of global mortality and burden of disease from 2002 to 2030. PLoS Med 3(11):442
3. The global burden of disease: 2004 update. Geneva: WHO2000
4. Nantulya VM, Reich MR. The neglected epidemic: Road traffic injuries in developing countries. [Last cited 2011 June 27]; BMJ. 2002 324:1139–41. Available from: [www.bmj.com/content/324/7346/1139](http://www.bmj.com/content/324/7346/1139). [PMC free article] [PubMed].
5. Mock C, Nguyen S, Quansah R, et al Evaluation of Trauma Care capabilities in four countries using the WHO-IATSIC Guidelines for Essential Trauma Care. World J Surg 2006 30:946–9565.
6. Mock C. Strengthening care of the injured globally. J Trauma 2011; 70(6):1307–16.
7. Wren E International Road safety News. <[www.driveandstayalive.com/admin/discliame.htm](http://www.driveandstayalive.com/admin/discliame.htm)>; 2011 accessed on 16.03. 2011.
8. Mock C, Joshipura M, et al. Overview of the essential trauma care project. World J Surg 2006; 30(6):919–29
9. Mock C, Joshipura M, et al. Strengthening trauma systems globally: the essential trauma care project. J Trauma 2005; 59(5):1243–6.
10. Mock C, Kobusingye O, et al. Human resources for the control of road traffic injury. Bull World Health Organ 2005; 83(4):294–300.
11. Federal Democratic Republic of Ethiopian Ministry of Health. Health Sector Development Programme IV 2010/11 – 2014/15. October 2010.
12. Road traffic injury research network: Capacity Development For Road Traffic Injury Research In Low And Middle Income Countries, Supporting Junior Researchers. World Bank; 2010. <http://rtirn.net>.
13. United nation ECA/NRID/019 economic commission for Africa Date: 24 Sept.2009
14. Odero.w, Tierney WM, Einterz R.M. Injury control and safety promotion, 2004
15. Murray CJL, Lopez AD. A comprehensive assessment of mortality and disability from diseases injuries and risk factors in 1990 and projected to 2020; trauma.1996.

16. Tibebe beshah<sup>1</sup>, Shawndra Hill<sup>2</sup>, Mining Road Traffic Accident Data to Improve Safety: Role of Road-related Factors on Accident Severity in Ethiopia, Department of Information Science<sup>1</sup>, Operations and Information Management Department<sup>2</sup>  
Addis Ababa University, Ethiopia<sup>1</sup>, University of Pennsylvania, Philadelphia, PA<sup>2</sup>  
Tibebe.beshah@gmail.com<sup>1</sup>, [shawndra@wharton.upenn.edu](mailto:shawndra@wharton.upenn.edu)<sup>2</sup>
17. Pallavisarji, Guru Raj, Grish RN, Practice and perception of first aid among lay first responders in a southern district of India.
18. Adenike I. Olugbenga-Bello a\*, Oluwadiya K. et al. First aid knowledge and application among commercial inter-city drivers in Nigeria. African Journal of Emergency Medicine (2012) 2, 108-113
19. Global status Report on Road Safety: Supporting a Decade of Action. WHO, Geneva. WHO 2013
20. World Health Organization: Global Health Observatory Data Repository. Injuries and violence: Road Safety. Available online at <[www.apps.who.int/ghodata/](http://www.apps.who.int/ghodata/)>; 2012 accessed on 22.2.2012
21. World Health Organization: Guidelines for trauma quality improvement programmes. Available online at <[www.who.int/publications/2009/9789241597746\\_eng.pdf](http://www.who.int/publications/2009/9789241597746_eng.pdf)>; 2012 accessed on
22. Nielsen K, Mock C, Joshipura M, et al.. Assessment of the status of prehospital care in 13 low- and middle-income countries. Prehosp Emerg Care 2012; 16(3):381–9.
23. Yankson IK, Browne EN, Tagbor H, et al.. Reporting on road traffic injury: content analysis of injuries and prevention opportunities in Ghanaian newspapers. Inj Prev 2010; 16(3):194–7.
24. YURUMEZ Y\*, YAVUZ Y.\*, SAGLAM H. et al Correspondence: a study on the first responders to emergency situations in South Korea. Emergency Department, Ajou University Hospital, Wonchun-dong, Yeongtong-gu, Suwon-shi, Korea 443–721, South Korea.
25. The World Bank. Motor vehicles (per 1,000 people) (2012). Retrieved from <http://data.worldbank.org/indicator/IS.VEH.NVEH.P3>
26. Murray, C. J WHO. (2009). Global status report on road safety: Time for action. Geneva: World Health Organisation. Retrieved Feb, 24, 2011, from [www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/2009](http://www.who.int/violence_injury_prevention/road_safety_status/2009)
27. WHO statistic, World Report on Road Traffic Injury Prevention, 2002
28. Getu S. Tulua,<sup>1</sup> Simon et al Characteristics of Police - reported Road Traffic Crashes in Ethiopia over a Six Year Period a, b ,c Centre for Accident Research and Road Safety – Queensland (CARRS-Q), Queensland University of Technology Corresponding Authors: [1getu.tulu@student.qut.edu.au](mailto:1getu.tulu@student.qut.edu.au)
29. WHO, Prehospital trauma care systems Avenue Apia 20 12 11 Geneva Switzerland
30. World First Aid Day / Global / 14 September 2013 ,United Nations General Assembly Resolution 64/255 on Road Safety
31. Central Statistics Agency Ethiopia, 2010
32. Ezega.com Addis Ababa May 12, 2011.
33. Addis zemen newspaper July, 7 2014.

## ***Annex me:-INFORAMATION SHEET AND CONSENT FORM***

Information Sheet And Consent Form Prepared For Participants From Addis Ababa, Ethiopia That Studies For A Study On The Assessment Of Knowledge, Attitude And Practices Of First Aid Service Provision Associated With Road Traffic Accidents Among Taxi Drivers In Addis Ababa, Ethiopia.

**Introduction:** This Information Sheet And Consent Form Is Prepared By The Investigator Whose Main Aim Is To A Study On The Assessment Of Knowledge, Attitude And Practices Of First Aid Service Provision Associated With Road Traffic Accidents Among Taxi Drivers In Addis Ababa, Ethiopia. The Investigator Is MSc Student From AAU Department Of Emergency Medicine.

**Procedure:** For A Study On The Assessment Of Knowledge, Attitude And Practices Of First Aid Service Provision Associated With Road Traffic Accidents Among Taxi Drivers In Addis Ababa, Ethiopia. I Invite You To Take Part In My Study. If You Are Willing To Participate In This Study, You Need To Understand And Sign The Consent Form.. For This Questionnaire Based Study, Participants Are Taxi Driver Who Have 1 Year Experience During The Study Period..

**Risk and/or Discomfort:** By participating in this study you may feel that it has some Discomfort specially on wasting your time (about 10-15 minutes) but if you comparing its Potential benefits it contributes to the overall improvement of the pre hospital care for RTA.

There is no risk in participating in this research project.

### **Confidentiality and Anonymity**

The information that we will collect from this research project will be kept confidential by that your name, adders will not be listed in the research and will arranged by coding system and will be kept under pass word protected system which will not be revealed to anyone except the principal investigator.

**Right to Refuse or Withdraw**

You have the full right to refuse for participating (you can choose not to respond some or all of the questions) if you do not wish to answer and also you have the full right to withdraw from this study at any time of interview period.

Are you voluntary to participate on the study? Yes-..... No-.....

If no what is your reason - .....

**Persons to contact:** If you have any question you can contact any of the following individuals and you may ask at any time you want.

- 1. Dr. Tigest Bacha (MD,MPH)

Tel: 0911676304

E-mail:Tigistbacha@yahoo.com

- 2. Ato Kibatu Gebre .....(BA, BSC, MSC)

Tel: 0922775279

E-mail:kibatugebre@yahoo.com

Name and signature of data collector

Name .....signature.....date.....

## ***ANNEX I ENGLISH QUESTIONERE***

### **ADDIS ABABA UNIVERSITY SCHOOL OF MEDICINE COLLEGE HEALTH SCIENCE DEPERTEMENT OF EMERGENCY MEDICINE**

Assessment of Knowledge, Attitude and Practices of First Aid Service Provision  
Associated With Road Traffic Accidents among Taxi Drivers in Addis Ababa, Ethiopia

Instruction: Choose and Circle the answer that seems best for you from the alternatives  
that are under each question and for those that you give direct answer, write the  
answer in the space provided

#### **PART 1: SOCIO DEMOGRAPHIC CHARACTERISTICS**

1. Age: .....
2. Gender
  - a. Male
  - b. Female
3. Year of experience
  - a. 2- 5 yrs.
  - b. 6-10 yrs.
  - c. greater than 10 yrs.
4. Educational status
  - a. primary
  - b. secondary
  - c. post-secondary
5. Marital status
  - a. married
  - b. single
  - c. widowed
  - d. divorced
  - e. other specify.....
6. Did you taken first aid training before?
  - a. Yes
  - b. no
7. If your answer for question no 6 is 'yes', where you were trained? .....
8. How many trip you make per day
  - a. 1-10
  - b. >10
9. How many RTA witnessed before
  - a. 1
  - b. 2
  - c. 3
  - d. >3

#### **PART 2: Knowledge**

1. When should be first aid give during RTA?

- a. Immediately                      b. In hospital      c. I don't know
- 2. Who should give first aid during RTA?
  - a. Health care worker    b. Taxi driver      c. I don't know

**You can give more than two answers for the following questions:**

- 3. Which of the following is prioritized for first aid?
  - a. breathing maintenance    b. stopping bleeding    c. Splinting fractures    d. all
- 4. Which of the following are sign of air way problem?
  - a. Fast breathing    b. slow breathing    c. Strider    d. All

- 5. Which of the following procedure are used for to open air way?
  - a. Jaw trust    b. head tilt and chin left      c. I don't know

- 6. Which of the following are used for to give breath?
  - a. Mouth to mouth      b. Mouth to nose              c. I don't know
  - d. Other specify .....

- 7. Which position is safe for a patient after a traumatic event?
  - a. Placing the victim sideways.                      b. Keep the patient face up position.
  - c. Keep the patient face down position.    d. Keep the neck not move
  - e. I don't know

- 8. Which of the followings are the sign of bleeding from the injured sight?
  - a. Bleeding from the injured site    b. Victim become in shock
  - c. Fast pulse and respiratory rate    d. I don't know

- 9. Which of the followings are important to stop sever on-going bleeding?
  - a. Apply tourniquet                                      b. Apply pressure and dress
  - c. Lift the injured part above the body level    d. apply alcohol

- 10. Management of fracture be
  - a. apply splint                      b. splint should not be use    c. I don't know

11. Which of the following is /are indication to transport to hospital care?

- a. Unconsciousness      b. traumatic wound      c. fracture      d. I don't know

**PART 3: Attitude**

1. Do you believe that it is necessary to provide first aid immediately for RTA patient at scene?

- a. Yes      b. No      c. Uncertain

2. Do you have willingness to provide first aid for RTA victim?

- a. Yes      b. No      c. Uncertain

3. If your answer for question number 2 is 'No', what is your reason?

- a) Could apply wrong treatment and cause harm  
b) Fear of infection  
c) I don't know how to give first aid  
d) Fear of legal concern  
e. Other specify.....

4. Do you have interest to train first aid

- a. Yes      b. no

5. If a victim has neck injury, do you think that moving the neck of victim aggravates his problem?

- a) Yes      b) no      c) uncertain

6. Do you think lay people should be trained to give first aid?

- A. yes      b. no      c. I don't know



