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RISK FACTORS OF ROAD TRAFFIC ACCIDENT IN KANDAHAR

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Maulana Azad University

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For the award of the degree of

Master of Public Health

BY

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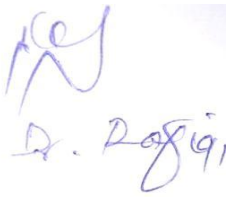
Certified that the dissertation **"Risk factors of road traffic accident in Kandahar"** is a record of the research work undertaken by **Dr Ehsanullah Niazi** in partial fulfillment of the requirements for the award of the degree of Master of Public Health under my guidance and supervision.



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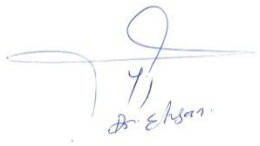
Declaration

I hereby declare that this dissertation **"Risk factors of road traffic accident in Kandahar,Afg"** is the bonafide record of my original field research. It has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



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Date: 27 June 2018

Abstract

Background: Road transportation is the major system of transportation in Kandahar Afghanistan, which uses various kinds of vehicles as means of transport. According to the Ministry of Transport report MRT (2008), most people in the province rely on road transport for their daily commutation, as well as the conveyance of raw materials and food commodities The statistical profile reflects a global estimate of 5.1 million deaths in 2000, which was due to injuries that accounted for 10% of deaths due to all causes. Out of this a quarter of injury-related deaths occurred in the South-asian and Central Asian region. Currently Road traffic accident is ranked as ninth leading cause for died in world

Deaths due to RTIs in Afghanistan are 2.5 per 10, 000 vehicles (EMRO Report status on Road safety). Afghanistan is third highest country for RTAs in EMRO region after Egypt and Libyan (EMRO Report status on Road safety). Kandahar is the second-largest city in Afghanistan, with a population of about 557,118 (CSO 2017-2018). Kandahar is located in the south of the country, it has 15 districts.

Method: Cross-sectional study design was used for this study and purposive sampling method was used, we interviewed with only 150 injured one, attendants, drivers, and traffic officers who have a road traffic accident and are admitted and enrolled in the study only in Mirwais Regional Hospital Kandahar between 1st February and 30 June 2018. A semi structured questionnaire was used to interview injured person or their attendants in emergency room to collect data on the risk factors of RTAs.

Result: This study revealed that 73 percent of the participants were in almost middle age (21-40 years) while participants economically active were highly prone to road traffic accidents.

This study showed that 63 had illiterate. This study shown that 54% of drivers got driving training and 46% did not get any driving training. This study indicates 77 percent of the participants had an accident in speed (41-120/km/hour).52 percent had an accident in sunny weather and 35 percent had an accident in rainy and snowy weather. 41 percent of accident happened in narrow and asphalt roads and 17 percent of accident occurred in Asphalt roads. 96% percent of drivers said that there are no traffic signs in these roads.

Most commonly affected road users are pedestrians, passengers and cyclists as opposed to drivers who are involved in most of the deaths and disabilities

Generally lack of driving licenses, poor condition of city roads and highway roads, drivers smoking, failure to follow traffic signs, and driving over speed limits contributes the Major risk factors of Road traffic injuries in Mirwais regional hospital. In Kandahar most accidents occurred on Thursday/Friday.

Conclusion and recommendation:

1. Improving road safety in the region should be a matter of all inclusive involving road users, policy makers and the mass media. The mass media should be used for publicity to raise the awareness in support of road safety campaigns.
2. The Kandahar Education Service should design appropriate curriculum for all levels of education to conscientise the students from the beginning so that they become aware of the consequences of road safety which would result in improved driver attitudes.
3. The theory test for applicants seeking driver license should be comprehensive to include basic knowledge in vehicle systems.
4. Traffic rule and regulation have to consider the age limitation on drivers and over 40 years' people can drive in high and main roads.
5. Traffic department of MOIA should prepare and implement speed limitation policy and have to organize drivers training and orientation sessions to them.
6. As known that all high way roads are asphalt, but it is still narrow, all the roads should be wide and double in order to reduce the risk of an accident.
7. Specific sign boards in curve areas must be installed to reduce accident in curve area.
8. Traffic department must install traffic sign board and monitor drivers for following the traffic rule and regulations.

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Thanks to Allah Almighty who enabled me to research on such a hot issue of these days. I, the author of this paper, express my gratitude to my supervisors at Department of Public Health, Maulana Azad University, Dr. Latika Nath Sinha, Ms. Bhawana Sathi, Dr. Abhishek Lohra, Dr. Nitin Joshi and Dr. Pramila Vivek and all guest professors who taught the conduct of research and provided their valuable comments while writing up this paper. Likewise, I acknowledge the support of my co-supervisor and friend, Dr. Najibullah Rafiqi, Academic and medical Staff, Department of Surgery, Faculty of Medicine, Kandahar University, Afghanistan. And his team for reviewing the report and valuable assistance.

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My joy knows no bounds in expressing my cordial gratitude to my best friend Dr. Sadullah Amin .his keen interest and encouragement were a great help throughout the course of this research work. Last but not least, I would like to thank all the men who eagerly participated in the research.

Table of Content

Contents

Abstract……4
Acknowledgements 6
Chapter 1: Introduction 11
1.1. Geography……..... 11
1.2. Population……..... 11
1.3. Political and Socioeconomic Situation 11
1.4. Health System 12
Chapter 2: Review of Literature 13
2.1. Background 13
2.2.Rationale……..…..…..…13
2.3.Research question 13
2.4.Main Objective..... 13
2.5.Specific objectives 13
2.6.LITERATURE REVIEW on RTAs..... 14
2.6.1.Global Accident Situation..... 14
2.6.2.RTAs in Kandahar and Afghanistan 15
Chapter 3: Methodology 17
3.1.Study and sampling design 17
3.2.Study Site……17
3.3.Study Subjects..... 17
3.4.Data Collection tool and Processing..... 17
Chapter 4: Results, Discussions, Conclusion and Recommendations 19
4.1.Result……..……..19
a.Socio-demographic characteristics..... 19
4.2.Discussion……..……...37
4.3.Conclusion and Recommendations..... 39
Chapter 5: Public Health benefits, Ethical consideration, Funding and Work 40
5.1. Potential public health benefits..... 40

5.2. Ethical Implications 40
5.3. Limitation of the study..... 40
5.4. Funding Source 41
.**Reference**……....42
ANNEX 1: Expected Time table..... 44
ANNEX 2: Proposed budget 44
ANNEX 3: INFORMED CONSENT FORM 45
ANNEX 4: Questionnaire..... 47

Tables:

Table 1:.....15

Table 2: 22

Table 3: 23

Table 4: 25

Table 5: 25

Table 6: 26

Table 7: 27

Table 8: 28

Table 9: 29

Table 10: 30

Table 11: 31

Table 12: 35

Graphs:

Graph 1: Region of the World.....14

Graph 2: Sex.....19

Graph 3: Age.....20

Graph 4: Education.....20

Graph 5: Education level.....21

Graph 6: Formal Driving License Training.....22

Graph 7: Hashish user during driving.....23

Graph 8: Used Alcohol before an accident.....24

Graph 9: Driving license.....24

Graph 10: Speed Estimation.....30

Graph 11: Accident angle.....31

Graph 12: Weather Condition.....32

Graph 13: Road Condition.....32

Graph 14: Reasons of Accidents.....33

Graph 15: Vehicle condition.....34

Graph 16: Vehicle problem.....34

Graph 17: Accident time.....35

Graph 18: Day of Accidents.....36

Graph 19: Traffic signs.....36

Chapter 1: Introduction

1.1. Geography:

Kandahār is the second-largest city in Afghanistan, Formerly called Alexandria Arachosia, the city is named after Alexander the Great, who founded it in 329 BC around an ancient Arachosian town. Kandahar is located in the south of the country on the Arghandab River, at an elevation of 1,010 m (3,310 ft). Sixty-five percent (65%) of the province mountainous or semi-mountainous and 35% flat or semi-flat It is the capital of Kandahar Province (UNFPA 2004), and also the center of the larger cultural region called Loy Kandahar. Many empires have long fought over the city due to its strategic location along the trade routes of southern, central and western Asia. Kandahar has extensive road links with Lashkar Gah and Herat to the west, Ghazni and Kabul to the northeast, Tarinkot to the north, and Quetta in neighboring Balochistan to the south.The city has 15 districts and a total land area of 27,337 hectares. The total number of dwellings in Kandahar is 61,902. Kandahar is the Regional Hub in southern Afghanistan, close to the border with Pakistan. Non-built up land use accounts for 59% of the total land area. Within the built-up area, vacant plots occupy a slightly higher percentage of land (36%) than residential land (34%). There is a significant commercial cluster along the road to Pakistan in District 5. India, Iran and Pakistan operate their consulate here for trade, military and political links.

1.2. Population:

The estimated population of Kandahar is 557,118 (CSO 2017-2018) of which 51 percent are males and 49 percent females. According to official national data, annual population growth rate is 2.7 and population density is about 41 people per square kilometer land (CSO, 2016). An estimated 76.1% population live in rural areas including 5.1% nomads while 23.9% population resided in urban areas of the province. The total fertility is 5.3 children per mother in the country (Afghanistan Demographic Health Survey 2015). Traditionally people live in extended families and average household size is estimated 7.8 persons (APHI, 2010). In accordance with estimated population of 2017, almost half the population is below 15 years of age (47.5%) (CSO 2017).

1.3. Political and Socioeconomic Situation:

It is a major trading center for sheep, wool, cotton, silk, felt, food grains, fresh and dried fruit, and tobacco. The region produces fine fruits, especially pomegranates and grapes, and the city has plants for canning, drying, and packing fruit, and is a major source of marijuana and hashish en route to Tajikistan. Afghanistan (specially Kandahar province) suffered from imposed civil war and devastating political instability due to former Soviet Union invasion in the 70s and 80s which laid the foundation of massive destruction at national level. This political instability extended for another decade as internal war and armed conflict among different ethnic groups and resulted in almost complete destruction of all socio-economic infrastructures in the country specially Kandahar. However, overall situation of the country

improved after the establishment of new government in 2002 with the support of international community. National development and reconstruction strategies and plan have been endorsed by the new government. According to constitution of Afghanistan, health care services and education (from primary to university level) is free for all population (Islamic Republic of Afghanistan, 2004). 36 percent of the province population is unemployed and living below poverty line where many people are suffering from basic life needs like housing, access to safe drinking water, electricity, gas and other source of heating. (World Bank, 2010).

1.4. Health System:

Kandahar health sector was almost completed devastated during last three decades of war and political instability lack of infrastructure, absence of professional and technical people at policy and planning level, lack of competent and skilled health care providers at community level and shortage of medical equipment and training institutions were the main challenges for the new government in 2001. National health indicators were poorest in the region, for example, maternal mortality ratio was 1600/100,000 live births, under five mortality rate was 257/1000 live births and skilled birth attendance was only 7% in the country (RAMOS and WHO 2003)

Ministry of Public Health, with the technical and financial support of international partners, successfully developed a well-defined uniform, community based, and primary health care-focused package of health care delivery called Basic Package of Health Services (BPHS) in 2003. The evolution of health system began in 2002 with the support of international partners. Its main objective was to ensure delivery of basic quality health care services targeted at key health problems of the population via extended coverage and active community participation (MoPH, 2005a). This package has seven core components based on national health priorities including maternal & newborn care, child health care, public nutrition, control of communicable diseases, mental health, disability and supply of essential drugs (MoPH, 2005a)

Immediately after the implementation of BPHS nationwide, the need for scaling up hospital services was realized, and this target was addressed by developing Essential Package of Hospital Services (EPHS) which facilitated referral mechanism from primary health care centers to secondary and tertiary level hospitals (MoPH, 2005b). Both BPHS and EPHS are supported by international donor agencies like USAID, European Union and World Bank and contributing 75 % of all health expenditure in Afghanistan which shows their great interest and involvement in health sector (MoPH, 2011). Though free health services have been made available throughout the country but still access to basic and hospital care services is a challenge for people due to several underlying factors (ICON-Institute, 2009). Skewed distribution of key health workforce (overcrowding of doctors in urban areas and shortage in rural setting) and critical shortage of professional and competent health care providers particularly skilled birth attendants negatively affecting impact of public health interventions (Belay, 2010).

Chapter 2: Review of Literature

2.1. Background:

Road traffic accidents (RTAs) are a global public health problem. Currently Road traffic accident is ranked as ninth leading cause for died in world, RTAs are expected to be the third leading cause of death in 2020. Every year Worldwide, the number of people killed in road traffic crashes is estimated at almost 1.2 million, while the number injured could be as high as 50 million, the total number of road traffic deaths worldwide and injuries is forecast to rise by some 65% between 2000 and 2020 and in low-income and middle-income countries deaths are expected to increase by as much as 80%. The majority of such deaths are currently among "vulnerable road users"– pedestrians, pedal cyclists and motorcyclists. (WHO, 2004).

2.2. Rationale:

Road traffic accidents which are generally unintended and preventable are a common risk every day to life that can happen to almost every one, anywhere. The problem of road traffic accident is increasingly becoming a threat to public health and national development in many developing countries. Road traffic accidents contribute to poverty by causing deaths, injuries, disabilities, grief loss of productivity and material damages. The British Medical Journal of 11th May 2002 indicated that more people die on the road traffic accident than from malaria worldwide; and that traffic accident cause about 1.2 million deaths and injury 10 to 15 million people a year in the world. Many people do not know that road traffic accidents are preventable. (Krug, 2002) Road traffic accidents are the most frequent causes of injury-related deaths worldwide (Astrom, et al. 2006). According to the World Report on Road Traffic Injury Prevention (World report on road traffic injury prevention, Peden et al., 2004) traffic accidents account for about 3000 daily fatalities worldwide.

2.3. Research Questions:

- What vehicle factors cause road traffic accident in the city and why?
- What behaviors of drivers cause road traffic accident in the city roads?
- What interventions and measures would have to be enforced to minimize road traffic accidents in the city roads?

2.4. Main Objective:

- To identify the risk factors of road traffic Accident in Kandahar city roads.

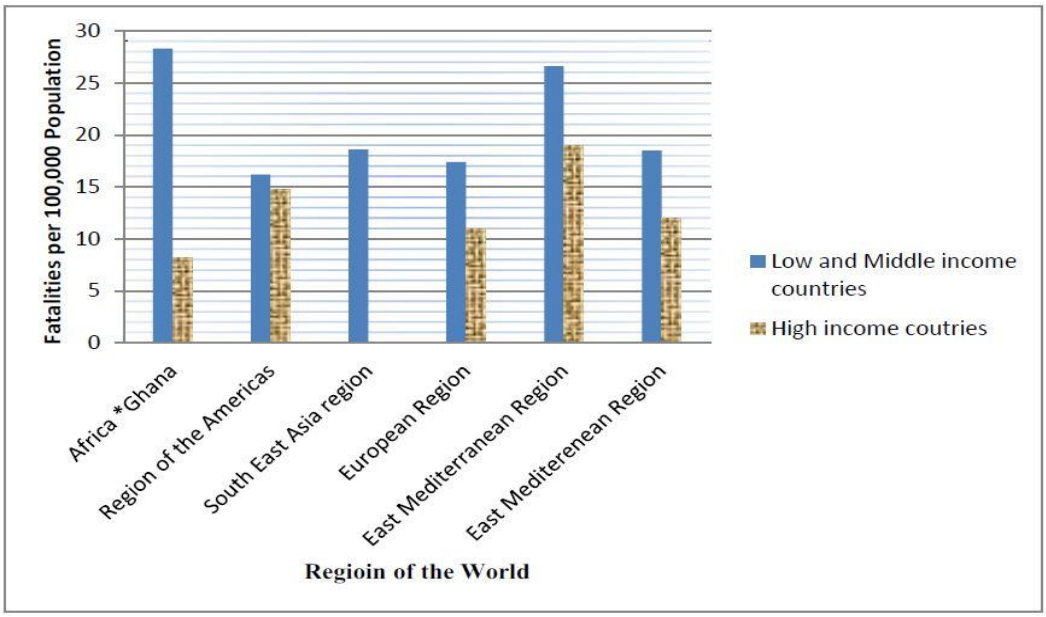
2.5. Specific objectives

a) To measure all those environmental factors which contributes in RTAs in Kandahar.
b) To define the correlation of Traffic signs/laws with RTAs in Kandahar
c) To identify the characteristics of vehicle that causes RTAs.
d) To assess driver attitudes and behaviors that lead to RTAs.

2.6. LITERATURE REVIEW on RTAs:

2.6.1. Global Accident Situation:

Road accidents are a comparable concern in both developed and developing countries because of their impact on social, economic and health issues. Research by the World Health Organization (WHO) (2009) has indicated that the number of people dying annually in road crashes may increase from 1 million to 1.3 million in the next 10-20 years. According to WHO and the World Bank estimates, death in road accidents will continue to rise by 65% until the year 2010. The organization further predicts that by the year 2030, it can increase to 2 million if swift action is not taken. **Graph 1:**



In economic terms, the cost of road crash injuries is estimated at roughly 1% of gross national product (GNP) in low-income countries, 1.5% in middle-income countries and 2% in high-income countries (Global road safety crisis).

The direct economic costs of global road crashes have been estimated at US$ 518 billion, with the costs in low-income countries – estimated at US$ 65 billion – exceeding the total annual amount received in development assistance (Global road safety crisis). Furthermore, the costs estimated for low-income and middle-income countries are probably significant underestimates. Using more comprehensive data and measurement techniques, the estimated annual costs (both direct and indirect) of road crash injury in European Union (EU) countries alone.

Table 1: Change in rank order of DALYs for the 10 leading causes of the global burden of disease

1990		2020	
Rank	**Disease or injury**	**Rank**	**Disease or injury**
1	Lower respiratory infections	1	Ischemic heart disease
2	Diarrheal diseases	2	Unipolar major depression
3	Perinatal conditions	3	Road traffic injuries
4	Unipolar major depression	4	Cerebrovascular disease
5	Ischemic heart disease	5	Chronic obstructive pulmonary disease
6	Cerebrovascular disease	6	Lower respiratory infections
7	Tuberculosis	7	Tuberculosis
8	Measles	8	War
9	Road traffic injuries	9	Diarrheal diseases
10	Congenital abnormalities	10	HIV

DALY: Disability-adjusted life year. A health-gap measure that combines information on the number of years lost from premature death with the loss of health from disability.

2.6.2. RTAs in Kandahar and Afghanistan:

RTAs in Kandahar mainly involve young men and often involve pedestrians. Road transportation is the major system of transportation in Kandahar, which uses various kinds of vehicles as means of transport. According to the Kandahar Directorate of Transport report (2016), most people in the province rely on road transport for their daily commutation, as well as the conveyance of raw materials and food commodities. Statistics show that about 91% of the province's freight use road transport. With such a high reliance on road transport, majority of Afghan entrepreneurs are of the view that the most lucrative business venture today is transport operation, because everyone is bound to travel to other provinces and districts at least twice a month. In the light of this, there is a tremendous increase in importation of second-hand vehicles into the country to enable those who believe that transport business is good to be in business. In fact it is better to own a brand new vehicle than a second-hand one, but comparing the difference in prices, one would easily go for the less expensive one which can serve the same purpose without considering the effects on the society. Obviously, every year the number of road traffic accidents increase due to the increasing number of vehicles on the roads (WHO, 2009). Afghanistan is listed as low income country (WHO, 2009), due to around four-decade continuous internal fighting, there is no visible economic growth in Afghanistan and our beloved country is still depend on donor funding, despite these unstable situations in Afghanistan, by the support of international community there are some positive improvement in health sector for example infant, child and maternal mortality rate have been reduce compared to 2001 and 2015.

Kandahar has experienced rapid social and economic modernization within the last fifteen years. This development included an increase in the motorization rate and a growing road network. There is no any complete data to the registered and non-registered vehicles and as well as to show the number of driving licenses distribution in Kandahar .This growth was supplemented by

an increase in the number of RTA related fatalities. Deaths due to RTIs in Afghanistan are 2.5 per 10, 000 vehicles (EMRO Report status on Road safety).

The statistic data on Road traffic injuries of Kandahar public health directorate shows that total of (6013) RTAs registered in Mirwais Regional Hospital (MRH), from which (2588) injured and (208) died in 2016 in Kandahar province boundaries. (HMIS department Afghanistan 2016). They surveyed 1514 injured and 283 drivers. Apparently the proportion of smokers among drivers were 51% (144) while it was 16.5% (247) among injured. Similarly, hashish use was 11% (31) among driver and 1.6% (24) among injured. Cars and motorbikes were involved in 56.4% and 28.3% of cases. Of the injured, 45.3% were pedestrians, 25.7% were passengers, 18.1% were cyclists, and 10.9% were drivers. The reasons for accidents from the injured patients' standpoint were 1.9% due to overloads, 2.8% due to failure to follow traffic signs, 71.6% due to driving over speed limits, 5.6% due to pedestrians on the street, 1.4% due to bad weathers, 7.7% due to bad roads, 8.6% due to poor driving skills and 0.5 % due to poorly maintained vehicles. Lower limb injuries were most common (39.6 %) followed by head injuries (25.1 %). Of all injured, 63.6% were hospitalized, 31.5% were discharged from emergency department, and 4.9% died in the emergency department. The average speed of the vehicles involved in accidents was 59.5 ± 22.10 km/hours. 13% vehicle occupants used seat belts or helmets, and 23.7% vehicles were right-side steering wheel. (Epidemiologic Pattern of Road Traffic Injuries in Afghanistan, 2013).

Chapter 3: Methodology

3.1. Study and Sampling Design:

Cross-sectional study design was used for this study and purposive sampling method was used, we interviewed with only 150 injured one, attendants, drivers, and traffic officers who have a road traffic accident and are admitted and enrolled in the study only in Mirwais Regional Hospital Kandahar between 1st February and 30 June 2018. A semi structured questionnaire was used to interview injured person or their attendants in emergency room to collect data on the risk factors of RTAs.

As there is no any comprehensive survey to show the prevalence of RTAs in Afghanistan, for sample size in this study we used the highest possible prevalence of RTIs; 95% confidence interval and 5% band of error. By correction of 10% un-response rate.

3.2. Study Site:

Mirwais regional hospital Emergency room and Surgical wards were visited for data collection, which covers 85% of Kandahar city RTAs cases.

3.3. Study Subjects:

Patients in Mirwais regional hospital who were brought to Emergency room was enrolled in the study when they give informed consent and meet the inclusion and none of the exclusion criteria.

Inclusion Criteria:

- ✓ Injury due to RTIs,
- ✓ Presentation at an emergency room with consent to be interviewed by injured one or attendants.
- ✓ More chance for city roads RTIs.
- ✓ Those patients will be included who are registered only in MRH emergency room.

Exclusion Criteria:

- ✓ Non-RTIs injuries
- ✓ Fall down from a stopped vehicle
- ✓ Lack of consent for interview
- ✓ RTIs from other hospitals and trauma centers will not be included.

3.4. Data collection tool and processing:

Questionnaire: A semi structure questionnaire has been developed based on objectives of the study with several probing options and hints for each short question to cover all required aspects of a certain objective.

Specific objective-based questionnaire was used. Each question was followed by pretested and most related hints and probes during interview with different respondents to have required data. Thematic analysis carried out by using a Stata and Excel spread sheets according to the

definition and inclusion and exclusion criteria. For validity and consistency of the findings and data, triangulation technique was undertaken by using information from Key information interview. Stata and excel spread sheet were used for the analysis of the collected data.

Chapter 4: Results, Discussions, Conclusion and Recommendations

4.1. Result:

The results were presented as follows in descriptive form and as well as in tables and graphs:

a. Socio-demographic characteristics.
b. Analysis of risk factors of RTAs in Kandahar, Afg.

a. Socio-demographic characteristics

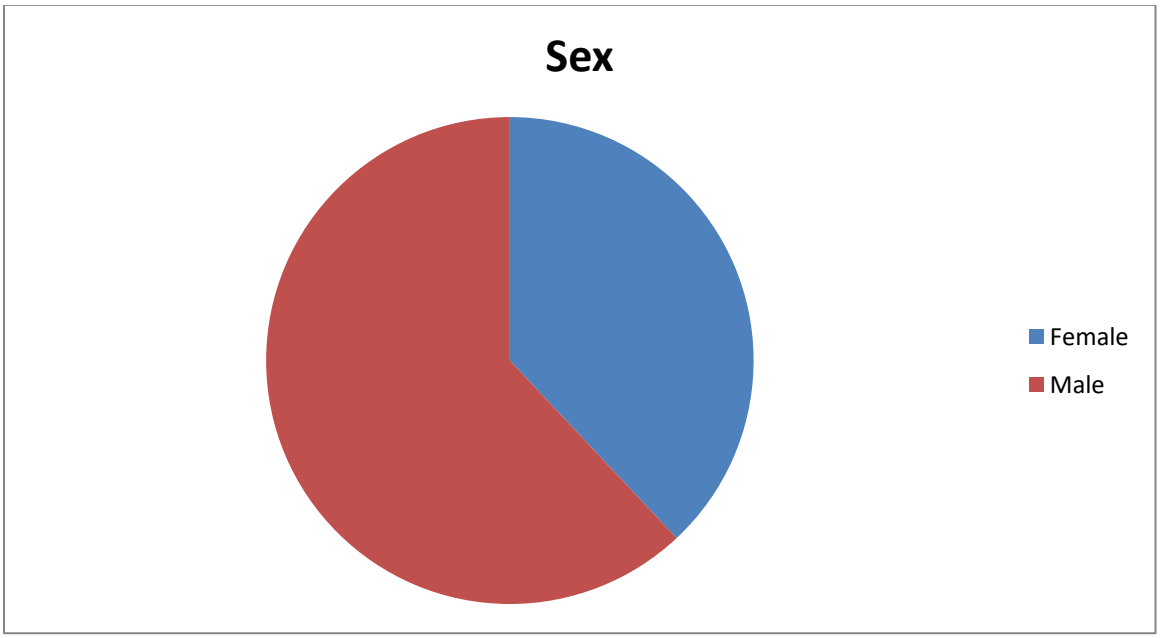
The present study revealed most victims were young, unmarried, pedestrians and drunk drivers. On socio-educational front, majority of them were educated up to school and belonged to middle and lower socioeconomic classes.

This situation can be improved by educating public through the mass media and initiating road safety training campaign in schools. This should highlight the socioeconomic and other problems of RTA and the role of individuals in its prevention.

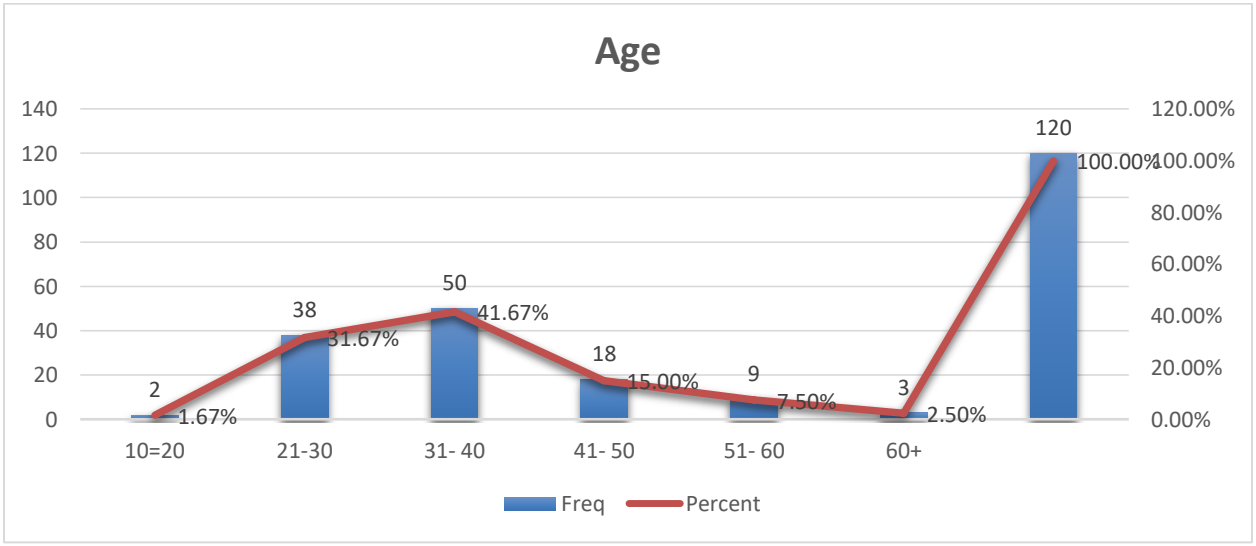
Medical conditions, personal problems and psychosocial conflicts were found to be significantly association with RTA.

The socio-demographic characteristics were gender, age, and education level of participant in this study.

Sex: A total of 150 participants were interviewed which include both male and female. (Graph.2)

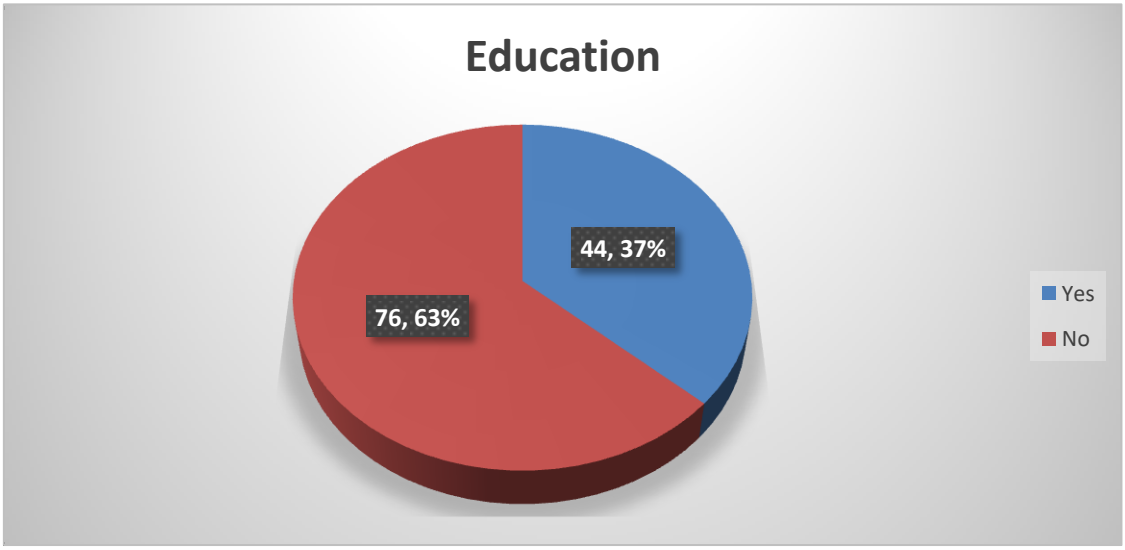


Age: Given local context of the country in terms of access to education and employment, more than 73 percent of the participants were in almost middle age(21-40 years) while participants above 50 years make up only 10 percent of the study size, and participants' age profile is reflected in the table given below. (Age with site of accident) (Graph 3)



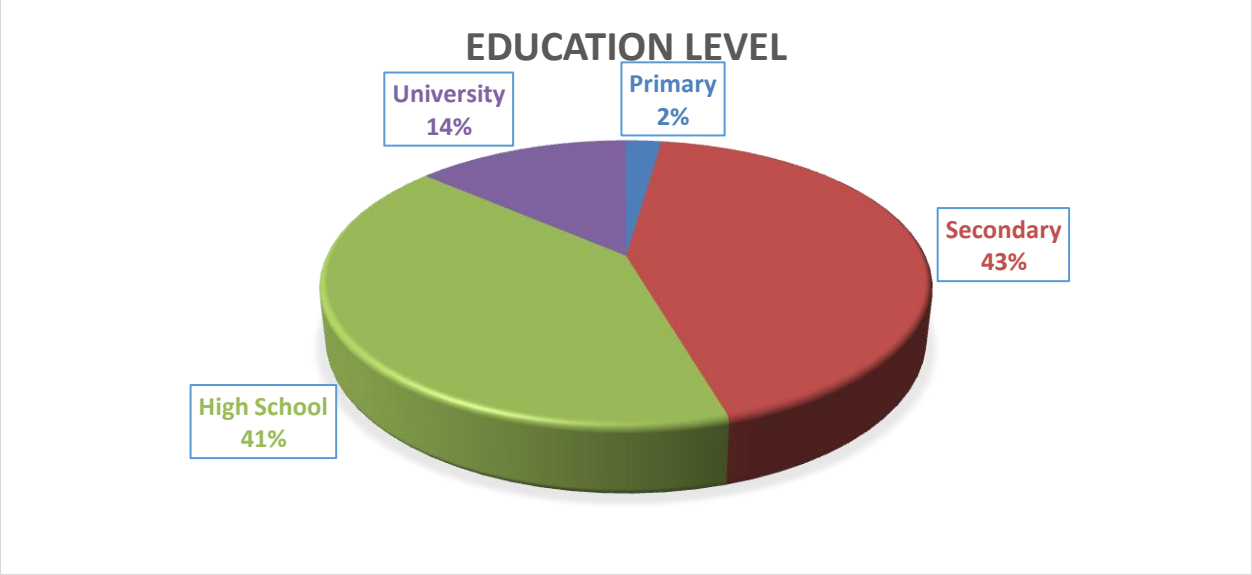
Education: Education has important role in routine live of people and as the literacy level of Afghans are low, so majority of people select the task which doesn't need education, one of the task which doesn't education is driving, almost two third of the study participants did not have any formal education or literacy at all while 37 percent of the participants have certain level of the education.

(Graph 4)



Among 44 participants who had certain level of education, 43 percent of participants had secondary level education, followed by high school level education 41%, participant's and only 14 percent of participants had bachelor level education and 2 percent had only primary education level.

(Graph 5)



Education & Employment Status vs. Main Road Driving:

Comparing having education with main task of drivers who had an accident experience in last five years, 33 (30.56%) drivers were educated and 75 (69.44%) drivers were not educated, the that their main job were driving and in their education, those participants whose main task were formal employees, student and retired 100% were educated and those who had personal business 3 (75.00%) were educated and 1 (25.00%) were not educated.

The previous scenario of Afghan population, those who had education should have formal employment in governmental or non-governmental entities so far it is almost applicable here and now a day it is going to be changed and some educated people are involved in their personal businesses including driving in cities and main roads.

This study indicates that 31 percent of drivers had education and their main job is driving and 69 percent of participants who had no education and their main jobs were driving and had an accident experience.

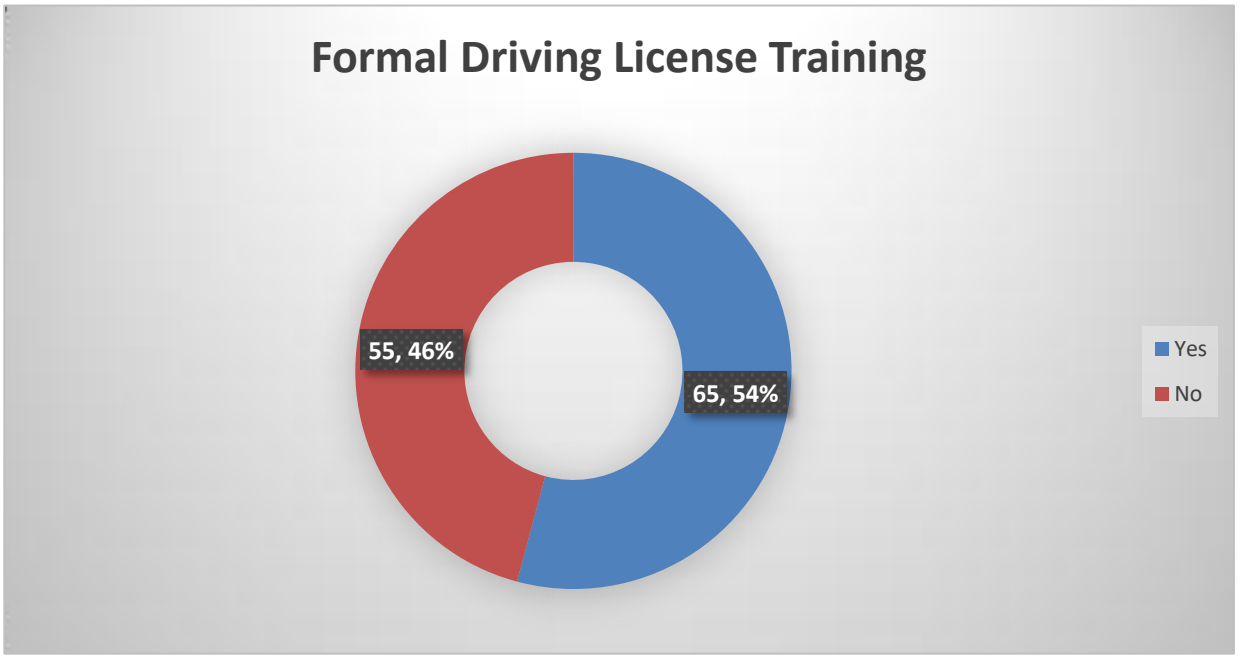
Table 2

Education	Employment					
	Driver	Formal Employee	Student	Personal	Retired	Total
Yes	33	3	4	3	1	44
	30.56%	100.00%	100.00%	75.00%	100.00%	36.67%
No	75	0	0	1	0	76
	69.44%	0.00%	0.00%	25.00%	0.00%	63.33%
Total	108	3	4	4	1	120
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Formal Driving License Training:

According to the country traffic regulations, every individual has to successfully pass driving exam for getting certain level of license preceded by two weeks obligatory and regular professional driving training conducted and organized by public traffic departments at national or provincial level under ministry of interior affairs. The study indicates that only 54 percent of the study population had formal driving training while 46 percent had no recommended driving training.

Graph 6



Smoking, Snuff, Hashish and Alcohol Usage:

This study showed that only 36 percent of participants were smoker and 64 percent of participants were non-smoker.
Table 3

Smoker	n=150(100%)	Remark
Yes	(35.83%)	
No	(64.17%)	
Total	150 (100.00%)	

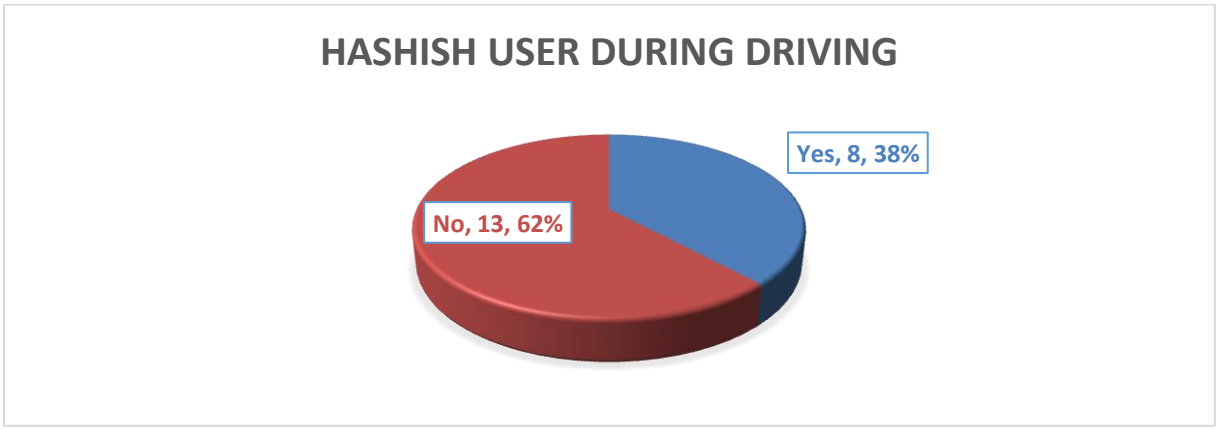
This study showed that only (25.00%) were snuff users and (75.00%) were not snuff users.

Snuff	n=150 (100%)	Remark
Yes	(25.00%)	
No	(75.00%)	
Total	150(100.00%)	

This study showed that only 17 percent of respondents were hashish user and 83 percent of respondents were hashish non-user.

Hashish	n=150(100%)	Remarks
Yes	(16.67%)	
No	(83.33%)	
Total	150(100.00%)	

8 percent of the drivers were using hashish[1] during the driving in this main road which highly risky. Graph 7

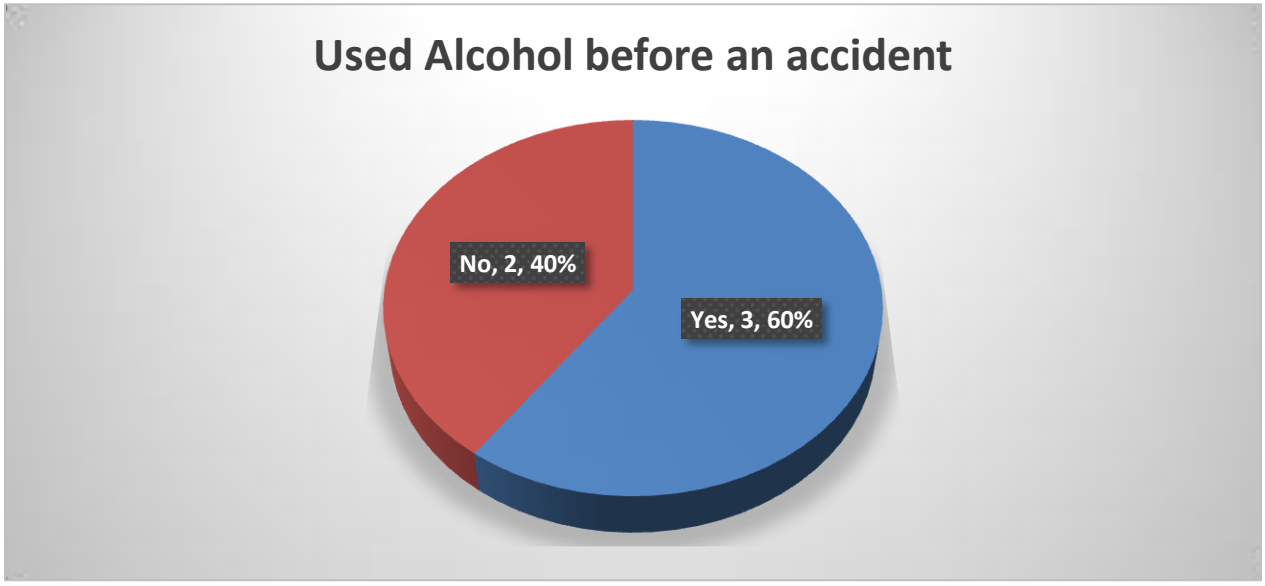


[1] Opening cigarette pack, removing cigarette stick, using lighter/match stick for burning cigarette stick and placing back the cigarette pack in pocket/switch board during driving.

This study showed that only 4 percent of participant were alcohol user and 96 percent of participants were not alcohol users and 60 percent of the drivers were using alcohol before an accident and 40 percent participants were alcohol user.

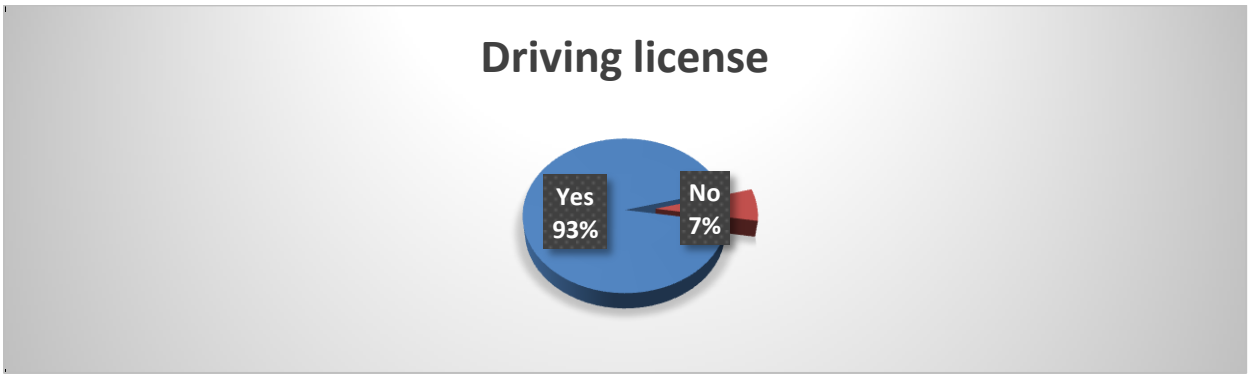
Drinking Alcohol	n=150 (100%)	Remarks
Yes	(4.17%)	
No	(95.83%)	
Total	150(100.00%)	

Graph 8



Driving License:

Having driving license is essential for all drivers who are planning to drive in cities and main roads, this study showed that 93 percent of participants had driving license and only 7 percent of participants didn't have any license at all which is an obligatory requirement by the law forcing agencies and traffic authorities but were still driving on certain main roads. (Graph 9)



Although there is no exception for any driver regarding regular participation in formal driving licensing training but almost half of the study population (43% drivers) had not attended 2 weeks' obligatory driving training. But interestingly all these drives without having formal driving training had their licenses for their vehicles and driving.

This study showed that 57 percent of participants attended a formal driving training course and they had driving licenses too, 88 percent of had no driving licenses and had no formal driving training too.

12 percent of participants had formal driving training, but didn't have driving license. Table 4

Formal Driving Training	Driving License	
	Yes	No
Yes	64 (57.14%)	1 (12.50%)
No	48 (42.86%)	7 (87.50%)
Total	112 (100.00%)	8 (100.00%)

Using Seatbelt:

As use of seatbelts remain very important for live saving during driving and all respondents reported that their vehicles have seatbelts but the study figures indicate that only 20 percent of the drivers regularly use seatbelts during driving on the main roads, 69 percent of respondents didn't use seatbelt during driving and finally 11 percent of respondents said that sometimes they used seatbelt. Table 5

Using Seatbelt	n=150 (100%)	Remarks
Yes	(20.00%)	
No	(69.17%)	
Sometimes	(10.83%)	
Total	150(100.00%)	

Site of Accident:

As daily thousands of people are driving inside the city and many more are traveling from Kandahar city to nearby districts and surrounding provinces, the study site is very important component of this study and to find out the risky site of the above mentioned main roads and will appropriate recommendation to road construction department and public traffic department for installing traffic sign in specific areas.

1. Kabul

This study indicates that 20 percent of accident happened in Moqor and 20 percent of accident occurred in Salar and 13 percent of accidents take place in Maidan area of Kandahar to Kabul main road. Table 6

Site of Accident	n=30 (100%)	Remarks
Andar	2 (6.67%)	
Arghandi	2 (6.67%)	
Tashti Tob	1 (3.33%)	
Ghazni	2 (6.67%)	
Maidan	4 (13.33%)	
Moqor	6 (20.00%)	
Qalat	2 (6.67%)	
Qarabagh	1 (3.33%)	
Salar	6 (20.00%)	
Shah joi	2 (6.67%)	
Shash Gow	2 (6.67%)	
Total	30(100.00%)	

Kandahar-Kabul Main Road:

2. Helmand (Lashkargah)

This study revealed that 33 percent of accident happened in Dorahi,20 percent of accident occurred in Malang Kariz and 13 percent of an accident take place in Sanzeri Jan and 13 percent of accident occurred in Yakhchal area of Kandahar to Lashkargah main road. Table 7

Site of Accident	N=30 (100%)	Remarks
Sanzeri	4 (13.33%)	
Zhari	1 (3.33%)	
Hawz madad	1 (3.33%)	
Maiwand	1 (3.33%)	
Malang kariz	6 (20.00%)	
Khak Chopan	2 (6.67%)	
Dorahi	10 (33.33%)	
Yakhchal	4 (13.33%)	
Grishk	1 (3.33%)	
Total	30 (100.00%)	

Kandahar-Helmand Main Road:

3. Urozgan

This study revealed that 40 percent of accident happened in Wayand,16 percent of accident occurred in Lond Bakhto and 10 percent of an accident take place in Wach Bakhto, Saagai and Bazargai area of Kandahar to Urozgan main road. Table 8

Site of Accident	n=30 (100%)	Remarks
Wach Bakhto	3 (10.00%)	
Wayand	12 (40.00%)	
Monar Kalai	1 (3.33%)	
Loo Kala	1 (3.33%)	
Mohamand Kalai	1 (3.33%)	
Lond Bakhto	5 (16.67%)	
Chinaaruna	1(3.33%)	
Saagai	3 (10.00%)	
Bazargai	3(10.00%)	
Total	30 (100.00%)	

Kandahar-Urozgan Main Road:

4. Zabul (Qalat)

This study indicates that 30 percent of accident happened in Shaar Safa area and 17 percent of accident occurred in Daman of Kandahar to Zabul main road. Table 9

Site of Accident	N=30 (100%)	Remarks
Daman	5 (16.67%)	
Mohmand Kalai	1 (3.33%)	
Sra Kala	2 (6.67%)	
Akhwand Sahib	1 (3.33%)	
Ziarat Kalai	1 (3.33%)	
Kariz Kala	2 (6.67%)	
Jamal Mina	2 (6.67%)	
Bazaar	1 (3.33%)	
Shaar Safa	9 (30.00%)	
Eshaqzai Manda	2 (6.67%)	
Jaldak	1 (3.33%)	
Hotako Kala	2 (6.67%)	
Qalat Bazar	1 (3.33%)	
Total	30	

Type of Vehicle:

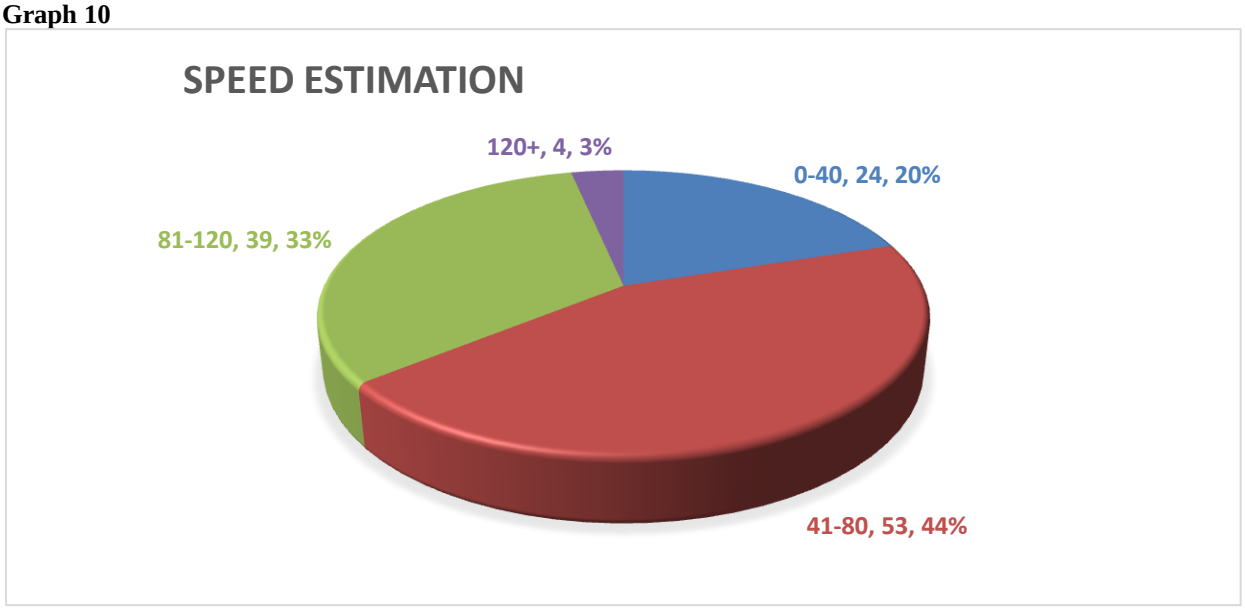
Based on the type of vehicle, this study showed that majority of accident happened by Motorbikes 40 (33.33%), followed by Zeranges bikes and Taxi cabs, 23 (19.17%) and 21 (17.50%). Table 10

Type of vehicle	n=120 (100%)	Remark
Motorbikes	40 (33.33%)	
Taxi cabs	21 (17.50%)	
Zeranges bikes	23 (19.17%)	
Rekshaw (Auto)	7 (5.83%)	
Milibus	12 (10.00%)	
Bicycles	17 (14.17%)	
Total	120 (100.00%)	

Vehicle Speed:

This study indicates that 77 percent of the participants speed were in(41-120/km/hour) while participants below 20 percent speed were 0-40 km/hour and only 3 percent of the study size, and participants' speed were 120+ in these main road.

Graph 10



Vehicle Type vs. Speed:

Vehicle modal has significant role in road traffic accident especially in main roads and there is no limitation of speed for the vehicle in main roads of Kandahar. The driver's main road enjoyed by going in high speed.

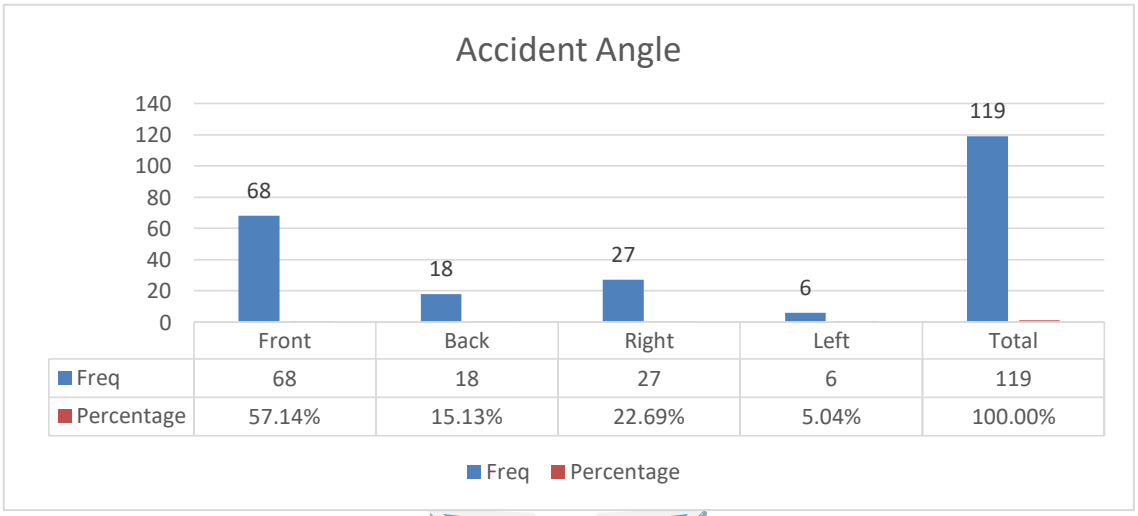
This study showed that 35 percent of Motorbikes had an accident in estimated speed of 61-80 km/hour, 48 percent of Zeranges had an accident in estimated speed of 81-100 km/hour, 35 percent of Taxi cabs had an accident in estimated speed of 61-80 km/hour, 43 percent of bus 303 had an accident in estimated speed of 101-120 km/hour, 83 percent of bus 404 had an accident on estimated speed of 81-100 km/hour and finally 47 percent of Rekshaw had an accident on estimated speed of 41-60 km/hour. Table 11

Type of Vehicle	Speed																Remark
	0-20		21-40		41-60		61-80-		81-100		101-120		120+		Total		
Motorbikes	4	10 %	3	8%	8	20 %	14	35 %	7	18 %	4	10 %	0	0 %	40	100 %	
Zeranges	1	5%	4	19 %	1	5%	0	0%	10	48 %	4	19 %	1	5 %	21	100 %	
Taxi cabs	4	17 %	3	13 %	6	26 %	8	35 %	1	4%	0	0%	1	4 %	23	100 %	
Bus 303	0	0%	1	14 %	1	14 %	0	0%	2	29 %	3	43 %	0	0 %	7	100 %	
Bus 404	0	0%	0	0%	0	0%	0	0%	10	83 %	2	17 %	0	0 %	12	100 %	
Saracha	2	12 %	2	12 %	2	47 %	8	4%	3	0%	0	0%	0	0 %	17	100 %	
Total	11	9%	13	11 %	18	15 %	30	25 %	33	28 %	13	11 %	2	2 %	120	100 %	

Angle of Accident:

This study showed that majority of vehicle had an accident from the front angle of the vehicle, which were 68 respondents (57.14%) and followed by right angle 27 respondents (22.69%).

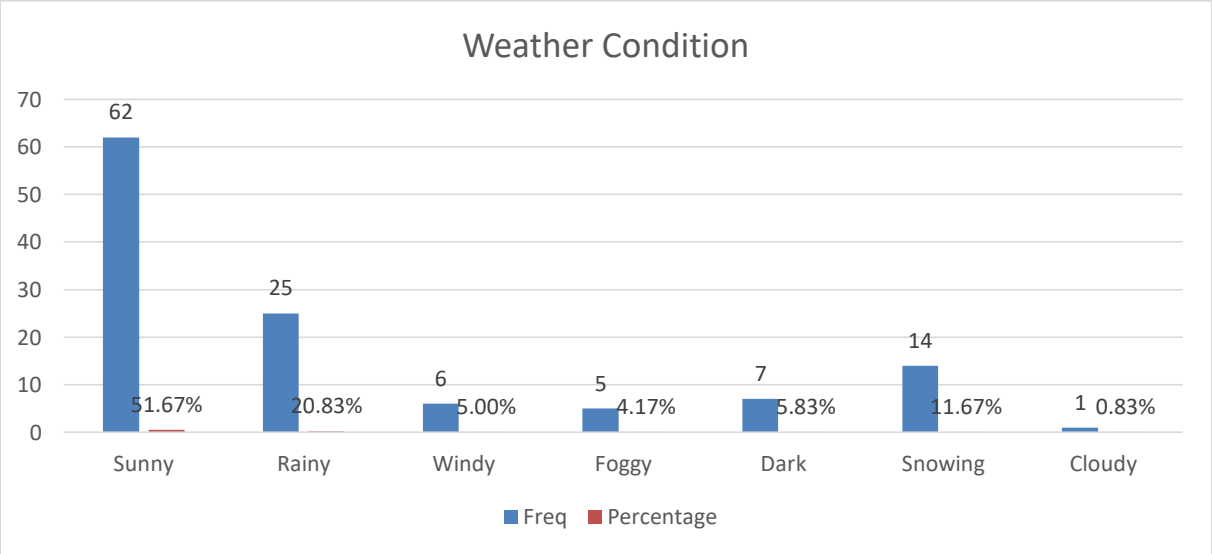
Graph 11:



Weather Condition:

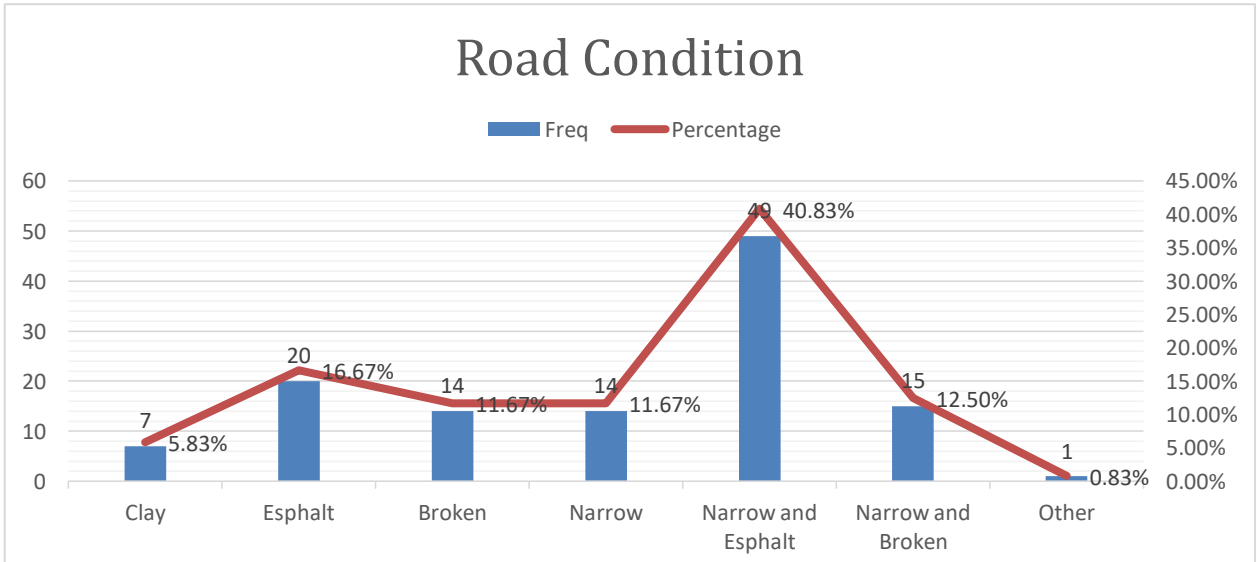
Driver's perception regarding the weather condition and an accident, 62 respondents (51.67%) had an accident in sunny weather, 25 respondents (20.83) had an accident in rainy weather, 14 respondents (11.67%) had an accident in snowy weather and followed by dark, windy, foggy and cloudy weather.

Graph 12



Road Condition:

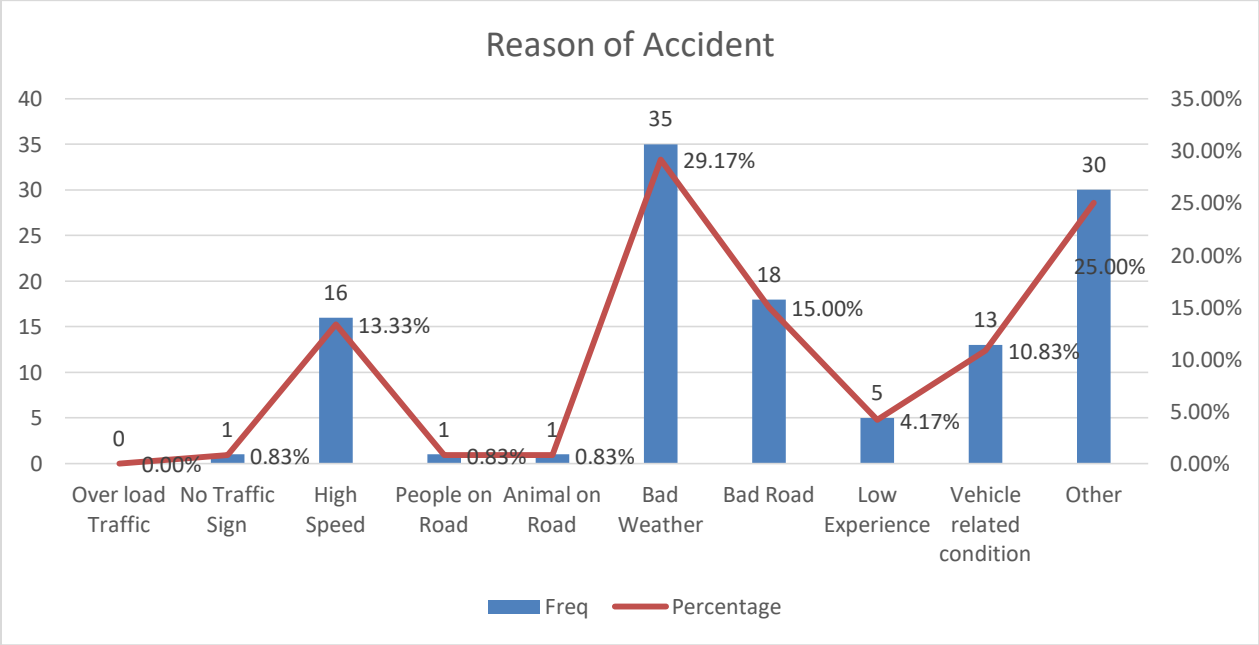
Road condition is one major cause of Road Traffic Accident, we observed in this study that 41 percent of accident happened in narrow and asphalt roads and 17 percent of accident occurred in Asphalt roads and followed by broken, Narrow and narrow and broken and clay roads in main roads of Kandahar. **Graph 13:**



Reasons of Accident:

Main reasons of accident are that majority of accident 35 respondents (29.17%) occurred in bad weather condition, 30 respondents (25%) had other causes of an accidents, 18 respondents (15.00%) said their reason of an accident was bad road condition, 16 respondents (13.33%) expressed that their accidents reason was high speed, 5 respondents (4.17%) said their accident reason was low experience of driving.

Graph 14:

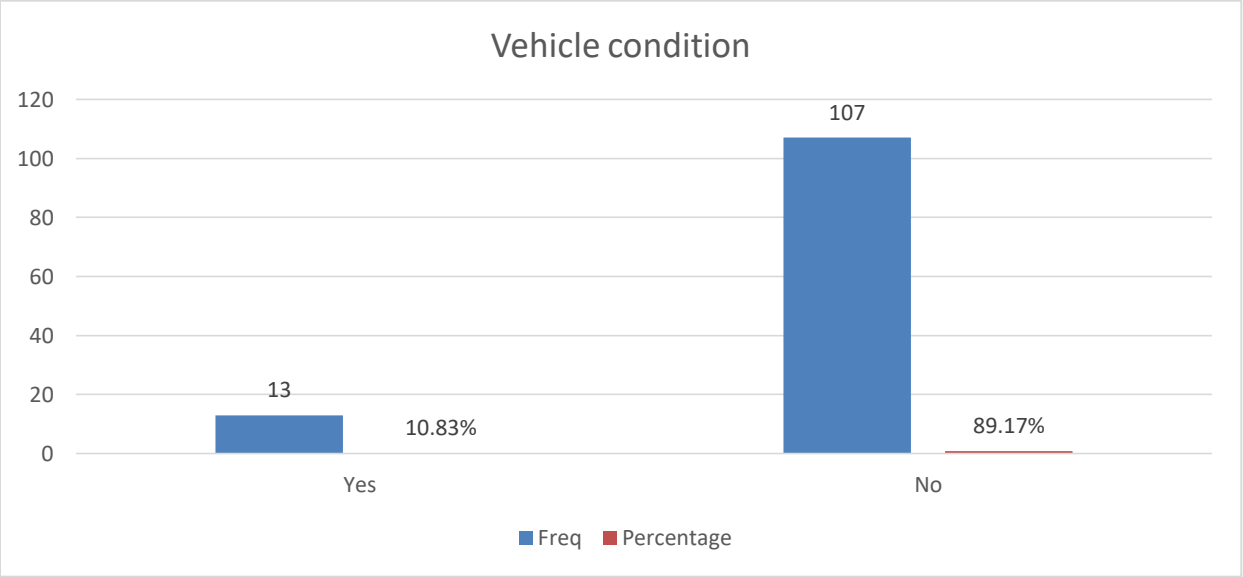


Vehicle Problem:

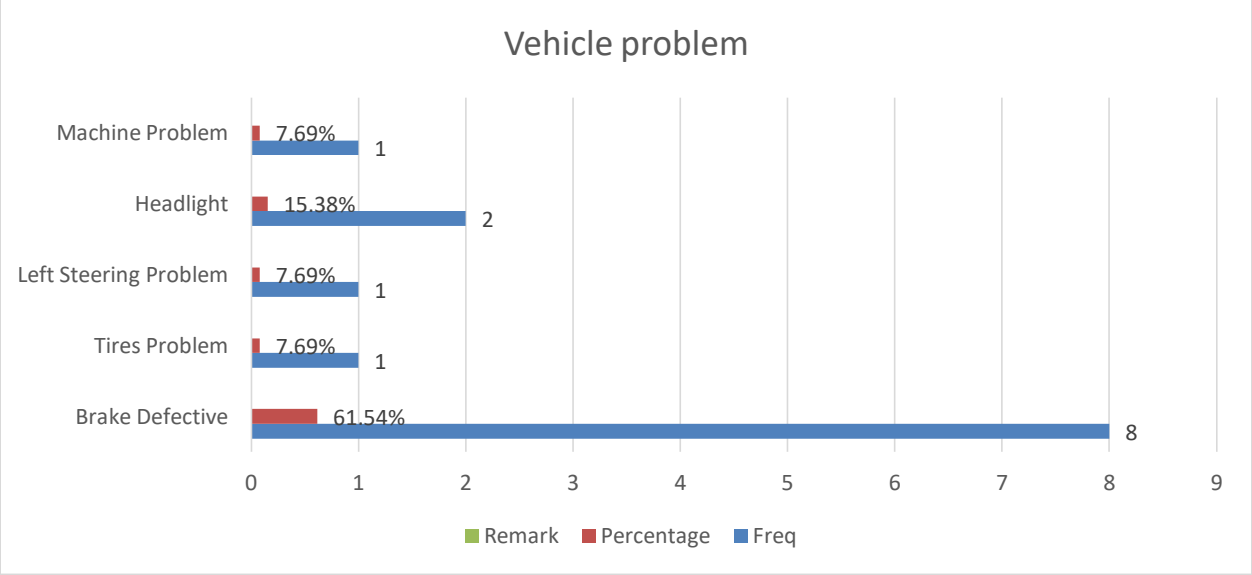
Speeding vehicle and long distance travel were found to be associated with high percentage of RTA. Accidents were also high in the present series at the start of journey as well as at the fag end of the journey. An effective speed policies for different zones along with scanning for speedy and rash driving through speed detecting camera at strategic and accident black spots together with timely refresher courses for the drivers are some of the activities where the government and local bodies should focus upon

Vehicle condition is one cause of RTAs in world, this study showed that there is no problem in vehicle before an accident, 107 participants (89%) said there was no vehicle problem and only 13 participants (11%) said that their vehicle had problem. Out 13 vehicles which had problem, the majority had 8 (61.54%) brake defect.

Graph 15:



Graph 16:



Area of Accident:

Helmand, 67 percent of accidents happened in curve area of road and 33 percent of an accident occurred in straight road.

Kabul, 27percent of an accidents happened in curve area of road and 73 percent of accident occurred in in straight road.

Urozgan, 37 percent of an accidents happened in curve area of road and 63 percent of accident occurred in in straight road

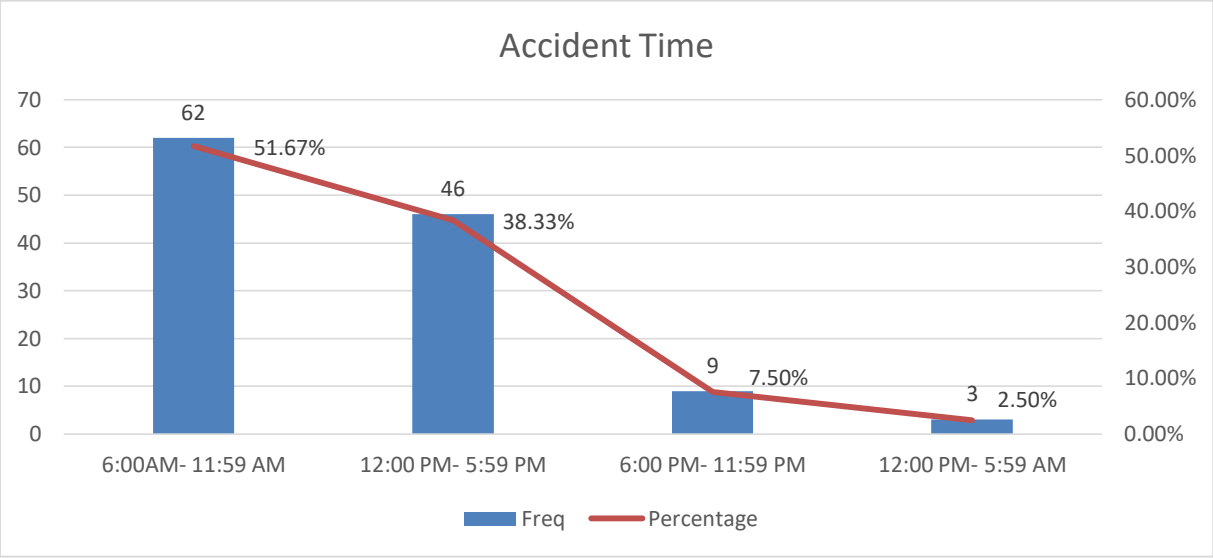
City roads, 30 percent of accidents happened in curve area of road and 70 percent of accident occurred in straight road. Table 12

Area	Helmand	Kabul	Urozgan	City Roads	Remarks
Curve	20	8	11	9	
	66.67%	26.67%	36.67%	30.00%	
Straight	10	22	19	21	
	33.33%	73.33%	63.33%	70.00%	
Total	30	30	30	30	
	100.00%	100.00%	100.00%	100.00%	

Time of Accident:

Due to multiple reason movement from Kandahar to districts and provinces and verse versa are from day and morning time and consider this movement habit of the people the accident pick is 62 percent in 6:00 AM-11:59 AM, 46 percent accident occurred in 12:00 PM-5:59 PM and this table shows time of accident:

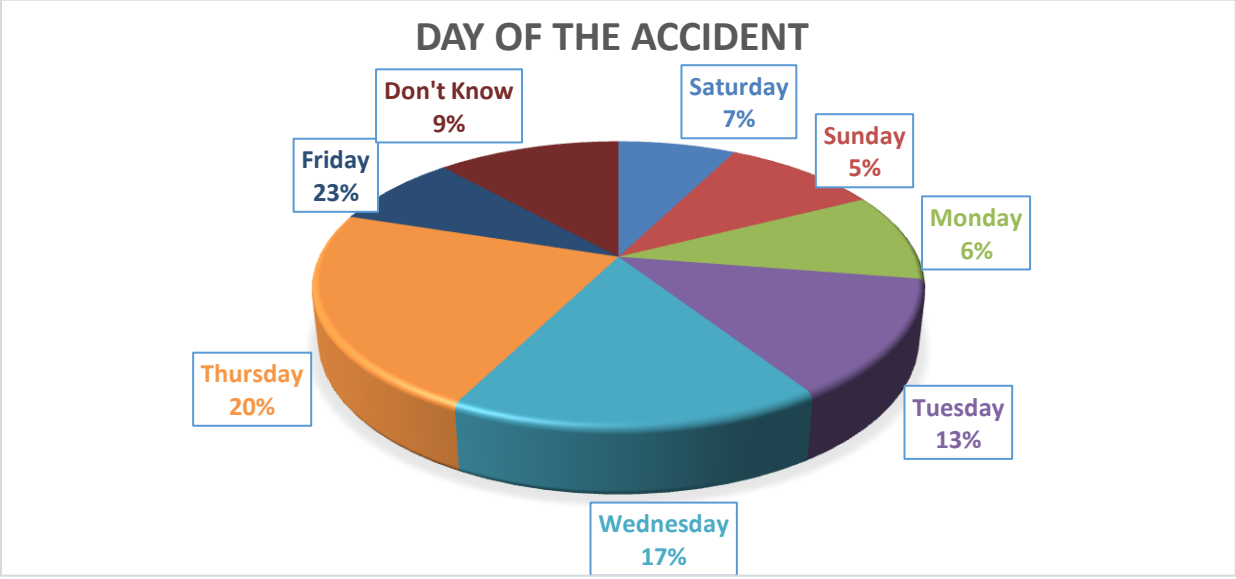
Graph 17:



Day of Accident:

Most of the accidents regarding the day of an accident, 23 percent had accidents in Friday, 20 percent had an accident in Thursday, 17 percent had an accident in Wednesday, 13 percent had accidents on Tuesday and 9 percent had no information regarding the day of their accidents.

Graph 18:



Traffic Signs:

The study demonstrated that the presence of traffic police and traffic light had a significant impact on the number and severity of accident. In fact, presence of functioning traffic light showed better accident control than the presence of traffic police alone. In our series we did not find any single instance where the accident dynamic was studied to evaluate the impact and extent of the damage.

Availability of traffic signs in roads has an important role in reduction of accidents in city road and as well as in high way and this study indicates that traffic sign installation in these main roads, 115 respondents (96%) expressed that there is no traffic sign in these high way and only 4 respondents (5%) expressed that there is traffic sign in these roads.

Graph 19:

4.2. Discussion:

In Kandahar most accidents occurred on Thursday/Friday. Everyday many people are killed and injured on our roads. Men, women or children walking, biking or riding to school or work, playing in the streets or setting out on long trips, are never having guarantee to reach destinations or to return home safely. hundreds of people each year are spending many weeks in hospital after severe crashes with many of them not being able to live, work or play as they used to do.

Road Traffic Accidents in Kandahar are one of the main causes of death and they have imposed a very heavy burden on the health of Kandahar population. Afghanistan is ranked third highest in EMRO region after Egypt and Libyan.

Generally lack of driving licenses, poor condition of city roads and highway roads, drivers smoking's, failure to follow traffic signs, and driving over speed limits contributes the major risk factors of Road Traffic Injuries in Mirwais regional Hospital.

One main reason to conduct this study is to know the Major risk factors of RTAs in Kandahar, Afghanistan which has high experience of road traffic accidents incidence in last decade.

This study revealed that young generation age between 31-40 (41.67%) and followed by 21-30 (31.67%) years that are economically active were highly prone to road traffic accidents.

This study showed that illiteracy 76 (63.33%) has highest contribution to RTAs in main roads of Kandahar, and despite those who had education, most of them are secondary and high school graduated and university had only 6 (14%)respondents.

This study shown that 55 (54%) of drivers got driving training and 55 (46%) did not get any training which had enormous contribution to RTAs in Kandahar, because they didn't know the traffic rule and regulations.

This research revealed that 112 (93%) of drivers had driving license and 8 (7%) of drivers didn't have driving license and despite not having license they are regularly driving in roads of Kandahar.

This study showed that 112 participants having the driving license, 64 participants (57.14%) got driving training and 48 participants (42.86%) didn't get any professional driving training but had training license.

The study figures indicate that only 20 percent of the drivers regularly use seatbelts during driving on the main roads, 69 percent of respondents didn't use seatbelt during driving and finally 11 percent of respondents said that sometimes they used seatbelt.

This study indicates that 20 percent of accident happened in Moqor and 20 percent of accident occurred in Salar and 13 percent of accidents take place in Maidan area of Kandahar to Kabul main road

This study revealed that 33 percent of accident happened in Dorahi,20 percent of accident occurred in Malang Kariz and 13 percent of an accident take place in Sanzeri Jan and 13 percent of accident occurred in Yakhchal area of Kandahar to Lashkargah main road.

This study revealed that 40 percent of accident happened in Wayand,16 percent of accident occurred in Lond Bakhto and 10 percent of an accident take place in Wach Bakhto, Saagai and Bazargai area of Kandahar to Urozgan main road.

This study indicates that 30 percent of accident happened in Shaar Safa area and 17 percent of accident occurred in Daman of Kandahar to Zabul main road.

Main reasons of accident, 29 percent of accident occurred in bad weather condition, 25 percent had other causes of accidents, 15 percent said their reason of an accident was bad road condition and 13 percent expressed that their accidents reason was high speed.

52 percent had an accident in sunny weather and 35 percent had an accident in rainy and snowy weather.

This study indicates that 77 percent of the participants speed were in(41-120/km/hour) while participants below 20 percent speed were 0-40 km/hour and only 3 percent of the study size, and participants' speed were 120+ in these main road

Road condition is one major cause of Road Traffic Accident, we observed in this study that 41 percent of accident happened in narrow and asphalt roads and 17 percent of accident occurred in Asphalt roads and followed by broken, Narrow and narrow and broken and clay roads in main roads of Kandahar.

Helmand, 67 percent of accidents happen in curve area of road and 33 percent of an accident occurred in straight road, but Kabul, Urozgan provinces and Kandahar city roads majority of accident occurred in straight road.

Due to multiple reason movement from Kandahar to districts and provinces and verse versa are from day and morning time and consider this movement habit of the people the accident pick is 62 percent in 6:00 AM-11:59 AM, 46 percent accident occurred in 12:00 PM-5:59 PM

Most of the accidents regarding the day of an accident, 23 percent had accidents in Friday, 20 percent had an accident in Thursday, 17 percent had an accident in Wednesday, 13 percent had accidents on Tuesday and 9 percent had no information regarding the day of their accidents

Availability of traffic signs in roads has an important role in reduction of accidents in city road and as well as in high way and this study indicates that traffic sign installation in these main roads, 115 respondents (96%) expressed that there is no traffic sign in these high way and only 4 respondents (5%) expressed that there is traffic sign in these roads.

4.3. Conclusion and Recommendations:

Interventions in RTA are broad-based and include regulation, legislation and community projects. The government of Afghanistan should find ways to support policy at local level. This should be client-oriented with good community support so as to overcome limitations.

1. Improving road safety in the region should be a matter of all inclusive involving road users, policy makers and the mass media. The mass media should be used for publicity to raise the awareness in support of road safety campaigns.
2. The Kandahar Education Service should design appropriate curriculum for all levels of education to conscientise the students from the beginning so that they become aware of the consequences of road safety which would result in improved driver attitudes.
3. The theory test for applicants seeking driver license should be comprehensive to include basic knowledge in vehicle systems.
4. Traffic rule and regulation have to consider the age limitation on drivers and over 40 years' people can drive in high and main roads.
5. Traffic department of MOIA should prepare and implement speed limitation policy and have to organize drivers training and orientation sessions to them.
6. As known that all high way roads are asphalt, but it is still narrow, all the road should be wide and double in order to reduce the risk of an accident.
7. Specific sign boards in curve areas must be installed to reduce accident in curve area.
8. Traffic department must install traffic sign board and monitor drivers for following the traffic rule and regulations.
9. Ministry of Education have to increase equal access to education capital city and provinces and have to initiate special literacy courses to drivers.
10. Driving professional training must obligatory for getting driving license at least for 15 days
11. Traffic department must conduct awareness program and explain the rule of seatbelts and how much seatbelt safe their live and there should be punishment for not using seatbelts.
12. Traffic department of MOIA have to investigate more regarding accident area, Majority of accident in Kandahar to Kabul road are occurred in Moqor and Salar, Majority of accident in Kandahar to Helmand road are occurred in Dorahi and Malang Kariz, Majority of accident in Kandahar to Urozgan road are occurred in Wayand and Lond Bakhto and finally Majority of accident in Kandahar to Zabul road are occurred in Shaar Safa and Daman.
13. 52 percent had an accident in sunny weather and 35 percent had an accident in rainy and snowy weather.
14. Reason 29 percent of accident occurred in bad weather condition, 25 percent had other causes of an accidents, 15 percent said their reason of an accident was bad road condition.
15. 62 percent of accident occurred in 6:00 AM-11:59 AM, 46 percent of accident occurred in 12:00 PM-5:59 PM.
16. 23 percent had accidents in Friday, 20 percent had an accident in Thursday, 17 percent had an accident in Wednesday, 13 percent had accidents on Tuesday and 9 percent had no information regarding the day of their accidents.

Chapter 5: Public Health benefits, Ethical consideration, Funding and Work

5.1. Potential public health benefits:

The study has come up with appropriate recommendations for health policy makers to address the problems in a proper and practical way. Also, the application of the recommendations of the study may contribute to improving the safety of drivers and passengers who frequently travelling in roads of Kandahar city.

5.2. Ethical Implications:

An oral interview and permission has been taken for capturing every one during observation and a written consent forms has been obtained from each interviewee translated into local language (Pashto). And all personal privacy has been taken during the process.

The research has considered all ethical codes and norms of local society during the study and during publishing/preparing the report of findings. No personal information had been disclosed to any third party nor it is published in the report in a way which could reflect a personal image of a person, village or society. As the study involves human subject as interviewees therefore a formal permission was taken from the Directorate of Public Health.

A proper informed consent was signed with every individual who were interviewed throughout the study. All questions were articulated in such a way which were considered as unethical in the Afghan context.

5.3. Limitation of the study:

The current study is limited to the Major Risk factors of RTAs in Kandahar city roads and the surrounding linking provinces roads only, and there is need to investigate the view point of health care providers, traffic department, municipality, road construction department of ministry of public work, passengers as well.

In this study most female victims of RTAs were not allowed by their attendants to participate in the study, due to social and cultural issue of the region.

As some of drivers had serious accident and they were not alive to interview and got correct information regarding the risk factors of RTAs.

As some of the injured ones were brought to emergency room of Mirwais regional hospital by strangers who were not present at the time of RTA, so we face low reliability of the accident history.

There were financial and time limitations to increase sample size.

5.4. Funding Source:

Funding needed for this research study was limited to the per diem and stationery or printing materials. Since it was an academic study, so all these expenses were paid by the researcher himself and there was no external source of funding to this study.

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ANNEX 1: Expected Time table:

S/N	Place		Timeline-2018						Remarks
			Feb	March	April	May	June	July	
1	Kandahar Data Collection								
3	Data compiling								
4	Data analysis								
5	Report Writing								
6	Final Report								

ANNEX 2: Proposed budget:

Activities	Unit Cost Afs	Total Cost afs	
Cost of Training/Pilot Study + Refreshment *6	3000	18000	
Subtotal			**18000**
Daily Transport *6	100		6000
Daily Food Allowance *6	150		9000
Daily Incentive*6	300		18000
Subtotal			**33000**
Stationery, Communication & other	3000		**18000**
Grand Total 69000			

Annex 3: INFORMED CONSENT FORM

Hello!

I am Dr Ehsanullah Niazi, and I am doing my MPH in Department of Public Health Maulana Azad University India, I am doing research on Risk factors of RTA (Road Traffic Accidents) in Kandahar province, which is very common in this region.

I am going to give you information and invite you to participate in this research entirely voluntary. You do not have to decide just now, whether or not you agree that you may participate in the research. Before you decide, you can talk to anyone you feel comfortable with.

If you choose not to consent, all the services you receive at this hospital will continue and nothing will change. You may also choose to change your mind later and stop participating, even if you agreed earlier, and the services you receive at the hospital will continue.)

There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me, the study doctor or the staff.)

The purpose of this research is to identify the very most common risk factors of RTAs in order to make preventive strategy for them in the future.

The information that we collect from this research project will be kept confidential. and it will not be used for any other purpose.

Do you understand what you have been told? Yes [ ] No [ ]

Do you have any other questions?

Do you agree to participate in the study: Yes [ ] No [ ]

Patient Signature or Mark:	**Doctor Signature:**	**Enroling Officer Signature:**
Date:	Date:	Date:

Contact Number:

Translation of consent form in to local language (Pashto):

رضایت لیک:

زه ډاکټر احسان الله نیازی یم او د هندوستان هیواد د مولانا ازاد پوهنتون د MPH د پروګرام غړی یم،غواړم د کندهار په ولایت کی د ترافیکی واقعاتو د خطر پر فکتورونو باندی یو علمی څیړنه یا تحقیق ترسره کړم.

زه به تاسو ته ددی څیړنی په هکله پوره معلومات درکړم او تاسو ته دعوت در کوم چه پدی تحقیق کښی په خپله خوښه او رضایت بیله کوم فشاره برخه واخلی، او د کډون تر مخه تاسو د هر چا سره مشهوره کولای سی.که چیری تاسو ددی څیړنی دپاره اماده نه یاست نو بیا هم مو تاسو ته اطمنان در کوو چه پدی روغتون کښی به ټول خدمات ستاسو دپاره د پخوا په شکل وی او کوم تغیر به پکښی را نسی.امکان لری ځنی کلمات ستاسو د پاره نا اشنا وی نو تاسو پوره حق لری چه پوښتنه وکړی او تاسو ته به معلومات درکول سی.

ددی څیړنی هدف په کندهار ولایت کښی د ترافیکی واقعاتو د خطری فکتورونو پیژندل دی تر څو په راتلونکی کښی ددی څیړنی څخه په استفاده لازمه تدابیر او تګلاره جوړه سی.او ستاسو ټول محرم معلومات به په ډیر اطمنانی ډول سره وساتل سی او د بل کوم هدف دپاره به ونه کارول سی.

ANNEX 4: Questionnaire

Name		**Age:**	**[ ] [ ] years**
		Sex:	**M / F**
House Number or Location:			
Date/Time of Accident		**Place of accident:**	
Date/Time of Interview		**Interview with:**	• **Injured Person** • **Attendant** • **Police officer** • **Traffic officer** • **Driver** • **Others**
Phone Number:		**Phone Number of relative:**	

SN	Variables	Code	Skip pattern	Response
Q1	Sex	1. Male 2. Female		
Q2	How old are you?	|____|____| years		
Q3	Do you have education	1. Yes 2. No	**If no go to Q 4**	

Q4	Education	3. Primary 4. Secondary 5. High School 6. University 7. Master 8. PhD 9. Other specify……..		
Q5	What is your marital status?	1. Married 2. single 3. Widow/widower 4. Other specify……..		
Q6	What is your main work status now?	1. Driver 2. Formal employee 3. Student 4. Personal Business 5. Farmer 6. Housewives 7. Retired 8. Others specify……..		
Q7	Did you get driving training?	1. Yes 2. No		
Q8	Are you Smoker?	3. Yes 4. No	**If No go to Q8**	
Q9	On average how many cigarettes you are smoking per day?	|____|____|		
Q10	Are you using mouth snuff?	1. Yes 2. No	**If No go to Q10**	
Q11	On average how often do you use snuff per day?	|____|____|		

Q12	Are you drinking alcohol sometimes?	1. Yes 2. No	**If No go to Q 13**	
Q13	Have you drink alcohol before accident	1. Yes 2. No		
Q14	On average how often do you use alcoholic drink per month?	|____|____|		
Q15	Are you using Hashish?	1. Yes 2. No	**If No go to Q 16**	
Q16	On average how often do you use hashish per week?	|____|____|		
Q17	Have you smoked hashish before accident?	3. Yes 4. No		
Q18	Are you using heroin?	1. Yes 2. No		
Q19	Have you used heroin before accident?	5. Yes 6. No		
Q20	On average how often do you use heroin daily?	|____|____|		
Q21	Do you have driving License?	1. Yes 2. No		
Q22	Were you wearing seatbelt?	1. Yes 2. No 3. Sometimes		
Q23	Where your accident has been occurred?	Specify the name:		

Q24	What type of vehicle you were riding?	1. Corolla under 2000 2. Corolla over 2000 3. Super custom 4. Bus 5. Lorry 6. Ranger 7. Other specify……		
Q25	What was your estimated speed during accident?	1. 0-20 2. 21-40 3. 41-60 4. 61-80 5. 81=100 6. 101=120 7. over 121 8. Don't know		
Q26	Angle of car accident?	1. Front 2. Back 3. Left 4. Right		
Q27	Did your vehicle have headrests? Airbags?	1. Yes 2. No		
Q28	How did you get to hospital?	1. Ambulance 2. Private transport 3. Police 4. Accident car 5. Myself 9. Other specify……..		
Q29	How was the weather?	1. Sunny 2. Raining 3. Windy 4. Foggy 5. Dark 6. Snowing 7. Other specify……		

Q30	How was the road condition?	1. Clay 2. Asphalt 3. Broken 4. Narrow 5. Other specify……..		
Q31	What was the reason for accident?	1. Overload vehicle 2. No traffic sign 3. High speed 4. People on road 5. Animal on road 6. Bad weather 7. Bad road 8. Low experience 9. Vehicle related condition 10. Other specify……..		
Q32	Do you have any medical problems?	1. Heart problem 2. Epilepsy 3. Vision problem 4. Anxiety 5. Muscle-skeletal 6. Disability 7. Hypertension 8. Don't have any medical problem 9. other specify_____		
Q33	Do you vehicle has a problem?	1. Yes 2. Not	If no go to Q34	
Q34	What was the Problems of vehicle?	3. overload 4. defective brake 5. tires 6. Left steering system 7. headlight 8. Machine Fault		

Q35	Problems for Human	9. Speed 10. Misjudgment 11. Traffic violation 12. Improper overtaking 13. Alcohol 14. Not clear vision 15. Less knowledge and experience 16. Careless and risk taker 17. Sleepy 18. None		
Q36	Were you using mobile phone during accident?	1. yes 2. No		
Q37	How long you were driving in this road?	1. 0-12 Months 2. 1-2 years 3. 3-4 Years 4. 5-6 Years 5. Over 7 Years 6. Other specify		
Q38	How long were you continuously driving?	Please specify……		
Q39	Were you distracted by something else?	1. yes 2. No	**If no go to Q36**	
Q40	What was that?	Please specify……		
Q41	What thing you have accident with?	1. Bicycle 2. Motorcycle 3. Car 4. Bus 5. Lorry 6. Ranger 7. Animal 8. Tree 9. Shop 10. Fail down		

		1. Other specify:……..		
Q42	What was your vehicle steering?	2. Left 3. Right		
Q43	Where have you accident?	1. Corner 2. Straight road		
Q44	Which day have accident?	1. Saturday 2. Sunday 3. Monday 4. Tuesday 5. Wednesday 6. Thursday 7. Friday		
Q45	What time have you accident?	Please specify		
Q46	Have you complete your sleep?	1. Yes 2. No		
Q47	How long have you not sleep in that time?	Please specify……..		
48	Is there any traffic signs in this main roads?	1. Yes 2. No		

په کندهارښارکی د سړک د تر افیکی پیښو د خطرمهم فکتورونه:

د کس شمیره		مصاحبه کوونکینیټه	|_____|
ولایت		مصاحبه کوونکی نوم	
مصاحبه وخت	|__|__|__|	ترافیکی پښی نیټه	|____|____|
دریور نوم		د دریور اړیکی شمیره	

شمیره	پوښتنه	کود	د ږښدو ځای	ځواب
۱ پوښتنه	**جنس**	۱. نارینه ۲.ښځینه		
۲ پوښتنه	**ستاسو عمر څومره دی؟**	سال|____|____|		
۳ پوښتنه	**تاسو زده کړی کړی؟**	۱ هو ۲ نه	که ځواب نه وی نو ۴ پوښتنه ته ځی	
۴ پوښتنه	**تر کومه کچه مو زده کړی کړی دی؟**	۱. ابتدایه ۲. ثانوی ۳. لیسه ۴. پوهنتون ۵. ماستری ۶. دوکتورا ۸. کو بل څه وی مشخص یی کړی.....		
۵ پوښتنه	**ستاسو مدنی حالت څنګه دی؟**	۱. متاهل ۲. مجرد ۳. کونډه یا کوندۍ ۴. کو بل څه وی مشخص یی کړی.....		
۶ پوښتنه	**اصلی دنده مو څه ده؟**	۱. دریور ۲. رسمی کارکوونکی ۳. زده کوونکی ۴. تجارت ۵. بزګر ۶. د کور ښځه ۷. متقاعد ۸. کو بل څه وی مشخص یی کړی.....		

۷ پوښتنه	ایا تاسو د دریوری ترینګ اخستی دی؛	۱. هو ۲. نه		
۸ پوښتنه	ایا تاسو سکریټ ځکوی؟	۱. هو ۲. نه	که چیری ځواب مو نه وی نو ۸ پوښتنه ته ّلاړ شی	
۹ پوښتنه	په اوسط ډول د ورځی خو سکریټ ځکوی؟	|____|____|		
۱۰ پوښتنه	ایا تاسو د نصوارو څخه کټه اخلی؟	۱. هو ۲. نه	که چیری ځواب مو نه وی نو ۱۰ پوښتنه ته ّلاړ شی	
۱۱ پوښتنه	په اوسط ډول د ورځی خو ځلی د نصوارو څخه کټه اخلی؟	|____|____|		
۱۲ پوښتنه	ایا تاسو د الکول څخه کټه اخلی	۱. هو ۲. نه	که چیری ځواب مو نه وی نو ۱۳ پوښتنه ته ّلاړ شی	
۱۳ پوښتنه	ایا تاسو د ترافیکی پیښی مخکی الکول څکولی وه ؟	۱. هو ۲. نه		
۱۴ پوښتنه	په اوسط ډول په میاشت کی خو ځلی د الکول څخه کټه اخلی؟	|____|____|		
۱۵ پوښتنه	ایا تاسو د چرسو څخه کټه اخلی؟	۱. هو ۲. نه	که چیری ځواب مو نه وی نو ۱۶ پوښتنه ته ّلاړ شی	
۱۶ پوښتنه	په اوسط ډول په هفته کی د چرسو څخه کټه اخلی؟	____|____|		
۱۷ پوښتنه	ایا تاسو د ترافیکی پیښی مخکی کټه اخستی؟	۱. هو ۲. نه		
۱۸ پوښتنه	ایا تاسو د هیروین څخه کټه اخلی؟	۱. هو ۲. نه	که چیری ځواب مو نه وی نو ۱۹ پوښتنه ته ّلاړ شی	
۱۹ پوښتنه	ایا تاسو د ترافیکی پیښی څخه هیروین مو ځکولی وه؟	۱. هو ۲. نه		
۲۰ پوښتنه	په اوسط ډول د ورځی خو ځلی د هیروین څخه کټه اخلی؟	|____|____|		
۲۱ پوښتنه	ایا دریوری لایسنس لری؟	۱. هو ۲. نه		
۲۲ پوښتنه	ایا د کمربند څخه کټه اخستی ده؟	۱. هو ۲. نه ۳. بعضی وختونه		
۲۳ پوښتنه	په کوم ځای کی مو ترافیکی پیښی وکړه ؟	لطفا نوم یی واخلی.....		

۲۴ پوښتنه	کوم نوع موټر مو چلوه؟	۱. کرولا موټر ۲. ۲۰۰۰ موټر ۳.. سوپر کیشتم ۴. بس ۵. لاری ۶. رینجر ۷. کو بل څه وی مشخص یی کړی.....		
۲۵ پوښتنه	د ترافیکی پیښی په وخت کی مو د موټر سرعت څو وه؟	۱/۰-۲۰ ۲/۲۱-۴۰ ۳/۴۱-۶۰ ۴/۶۱-۸۰ ۵/۸۱-۱۰۰ ۶/۱۰۱-۱۲۰ ۷/۱۲۱زیات ۸. نه پوهیږم		
۲۶ پوښتنه	ستاسو د موټر کوم قسمت په پیښی کی متضرر شوی دی؟	۱.د مخی لاخوا ۲.د شا لا خوا ۳. د چپ خوا ۴.کن خوا ته		
۲۷ پوښتنه	ایا ستاسو موټر ایر بیک لری؟	۱. هو ۲. نه		
۲۸ پوښتنه	روغتون ته په څه ډول انتقال شوی؟	۱. امبولانس ۲.شخصی موټر ۳. پولیس ۴. د پیښی موټر ۵. خپله ۶. کو بل څه وی مشخص یی کړی.....		
۲۹ پوښتنه	د هوا حالت څنګه وه؟	۱.لمر ۲. بارانی ۳. باد ۴. نسبتا تورتم ۵. تورتم ۶، واوره وریدله ۷. کو بل څه وی مشخص یی کړی.....		
۳۰ پوښتنه	د سړک وضعیت څنګه وه؟	۱.سړک خامه وه ۲. سړک قیر وه ۳.سړک مات وه ۴. سړک تنګ وه ۶. کو بل څه وی مشخص یی کړی.....		

۳۱ پوښتنه	ستاسو د ترافیکی پیښی دلیل خو وه؟	۱. دحد نه زیات بار ۲. ترافیکی علایم موجود نه وه ۳. سرعت زیات وه ۴. خلک بر سړک موجود وه ۵ حیوانات به سرک وه ۶. هوا خرابه وه ۷. سرک خراب وه ۸. تجربه می کمه وه ۹. موتر حالتی خراب وه ۱۰. کوم بل څه وی مشخص یی کړی.....		
۳۲ پوښتنه	ایا تاسو روغتیایی ستونزه لری؟	۱. قلبی ستونزه ۲. مرکی ۳. د لیدو ستونزه ۴. خبگان ۵. عضلات و هډوکی ستونزه ۶. معلول ۷. لوړ فشار ۸. کومه روغتیای ستونزه نلرم ۹.کوم بل څه وی مشخص یی کړی.....		
۳۳ پوښتنه	ایا ستاسو موتر ستونزه لرلی یا نه؟	۱ هو ۲ نه		
۳۴ پوښتنه	ستاسو موټر کومه ستونزه لرله؟	۱.د موټر بار زیات وه ۲. برک ستونزه لرله ۳. تیر ستونزه لرله ۴. اشترنک چپ خواته وه ۵. ګروپ یی ستونزه لرله ۶.ماشین ستونزه لرله ۷. موټر هیڅ ستونزه نلرله ۸.کوم بل څه وی مشخص یی کړی.....		
۳۵ پوښتنه	ایا تاسو ستونزه لرله؟	۱. سرعت زیات ۲. قضاوت نا درست ۳. اجتناب از مراعت از علایم ترافیکی ۴. بار نا درست ۵. الکول ۶. دید نا درست ۷. نا دانی و تجربه کم ۸. خطر را قبول کردم ۹. خواب الود ۱۰. هیچ کدام ۱۱. دیکر مشخص نمایید.....		
۳۶ پوښتنه	ایا تاسو د ترافیکی پیښی په وخت کی په تیلیفون کی خبر کوی؟	۱. هو ۲. نه		

۳۷ پوښتنه	**ځومره وخت کیږی چی تاسو په دی لار کی دریوری کوی؟**	۱-۱۲/۰میاشت ۲-۲/۱کال ۳-۴/۳کال ۴-۶/۵کال ۵. از ۷کال زیات		
۳۸ پوښتنه	**ځومره وخت کیږی چی په دوامداره دریوری کوی؟**	.....		
۳۹ پوښتنه	ایا د دریوری په وخت کی تاسو کوم بل ځه ته منحرف شوی یاست؟	۱. هو ۲. نه		
۴۰ پوښتنه	**په ځه شی باندی منحرف شوی؟**	.....		
۴۱ پوښتنه	**د ځه شی سره مو ترافیکی پیښه کړی؟**	۱. بایسکل ۲. موټر سایکل ۳. موټر ۴. بس ۵. لاری ۶. رینجر ۷. ژوی ۸. ونه ۹. دوکان ۱۰. موټر مو چپه شوو ۱۱. کوم بل ځه وی لطفا مشخص کړی.....		
۴۲ پوښتنه	**موټر اشترنک مو کوم خواته دی؟**	۱. کن ۲. بنی		
۴۳ پوښتنه	**په کوم ځای کی مو ترافیکی پیښی کړی؟**	۱. کولای ۲. مستقیم سرک وه		
۴۴ پوښتنه	**په کومه ورځ مو ترافیکی پیښه کړی؟**	۱. شنبه ۲. یکشنبه ۳. دوشنبه ۴. سه شنبه ۵. چهار شنبه ۶. پنچشنبه ۷. جمعه		
۴۵ پوښتنه	**ځه وخت مو ترافیکی بیښه کړی؟**	مشخص یی کړی.....		
۴۶ پوښتنه	**ایا تاسو پوره خوب کړی وه؟**	۱. هو ۲. نه		
۴۷ پوښتنه	**ځومره وخت کیده چی تاسو خوب نه وه کړی؟**	لطفا یی مشخش کړی		
۴۸ پوښتنه	**ایا په دغه لویه لاری که ترافیکی علایم شده یا نه؟**	1 . هو 2 . نه		

Paper: