

1.Reasons for Accidents

1.1 High Speed

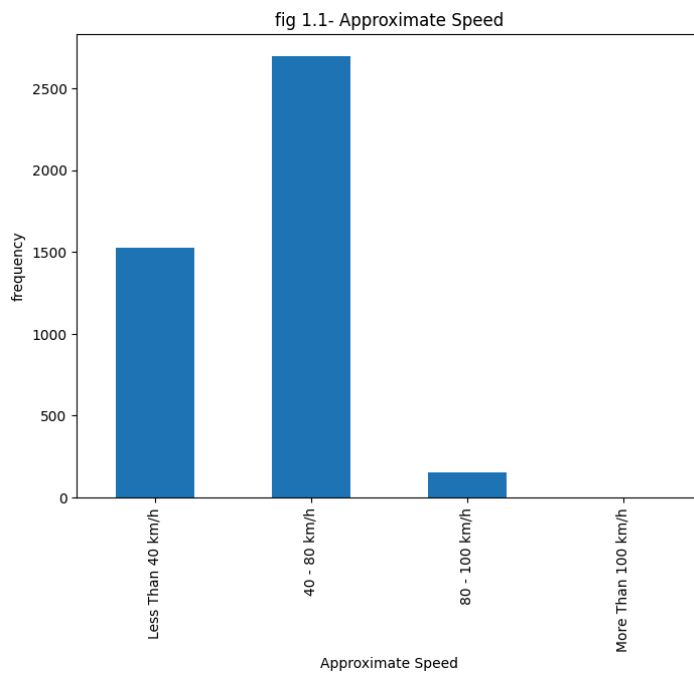
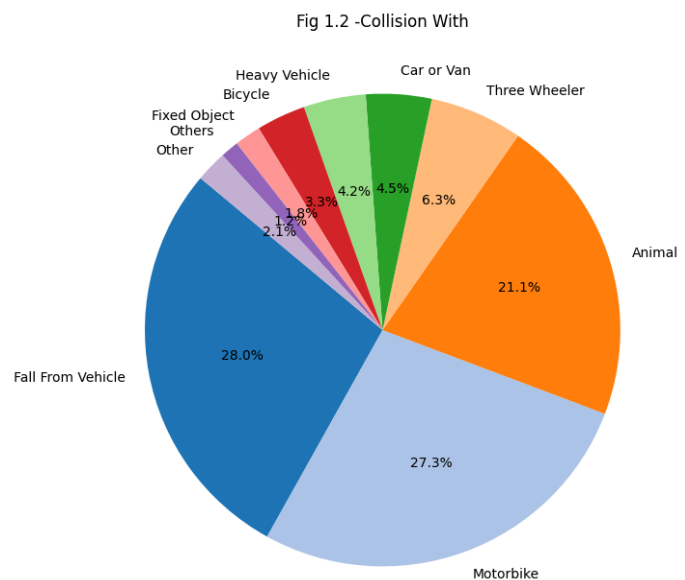


Figure 1.1 shows that most major accident cases occur at high speeds ranging from 40 to 80 km/h. This observation supports the notion that traveling at higher speeds increases the likelihood of being involved in an accident.

1.2 Type of offending vehicle

It is interesting to note that a significant portion of accidents (27%) result from collisions with animals. This is not surprising, given that most of these accidents occurred in rural areas



1.3 Driver without a license

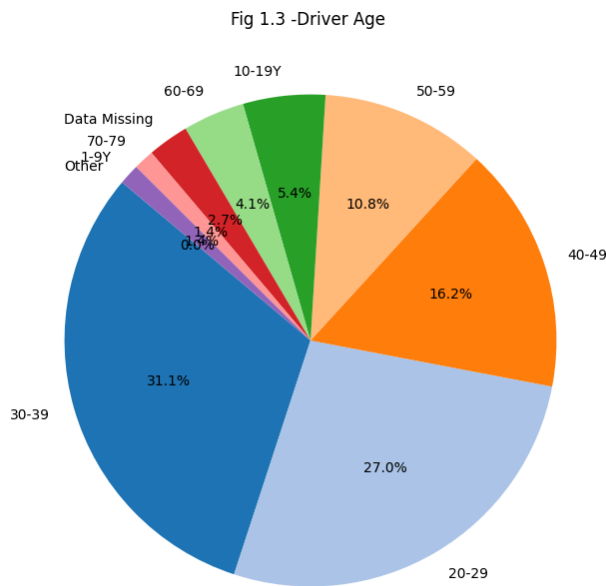


Figure 1.3 shows that 6.8% of drivers involved in accidents are below 19 years of age. In Sri Lanka, a citizen must be 18 years or older to obtain a driving license. This suggests that teenagers without a valid driving license are contributing to road traffic accidents.

1.4 Alcohol Consumption

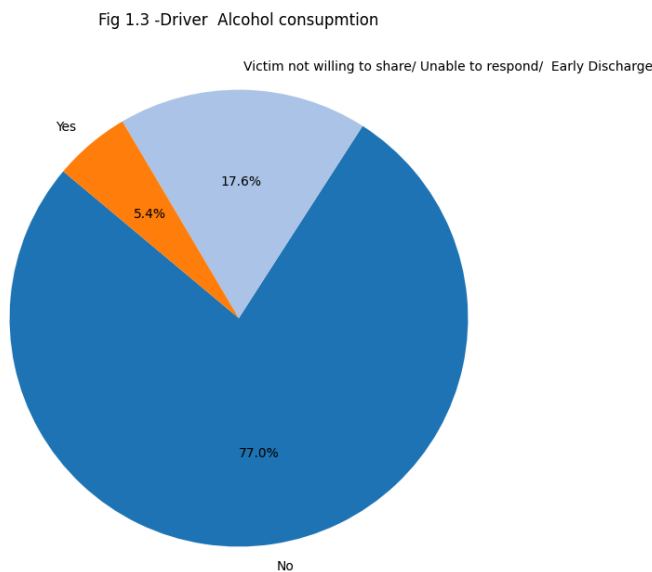
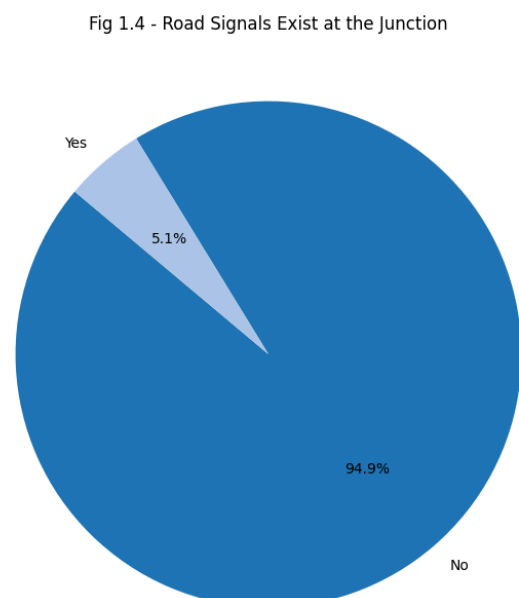


Figure 1.4 illustrates whether the drivers involved in accidents had consumed alcohol. According to their responses, 5.4% admitted to consuming alcohol. However, these responses may be biased, as some drivers might conceal the fact that they were under the influence. As a result, the 17.6% of responses could include drivers who were actually intoxicated while driving but did not disclose it.

1.5 Existence of Road Signals at Junction

The absence of road signals at junctions is a major cause of road traffic accidents (RTA).



1.6 Road Conditions

Fig 1.5- Road Condition

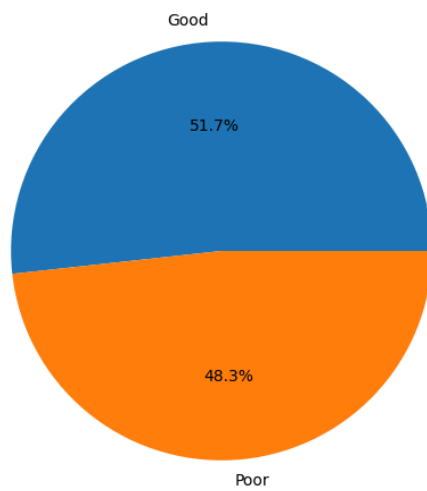


Figure 1.5 shows that nearly 50% of road accidents occur on poorly maintained roads.

2 . Accident Trend

2.1 During the Day

Fig 2.1 -Time of Collision

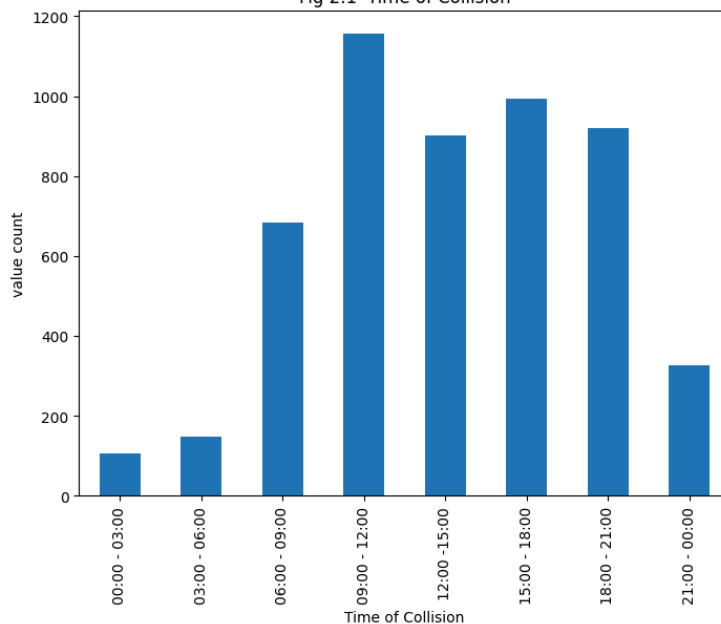
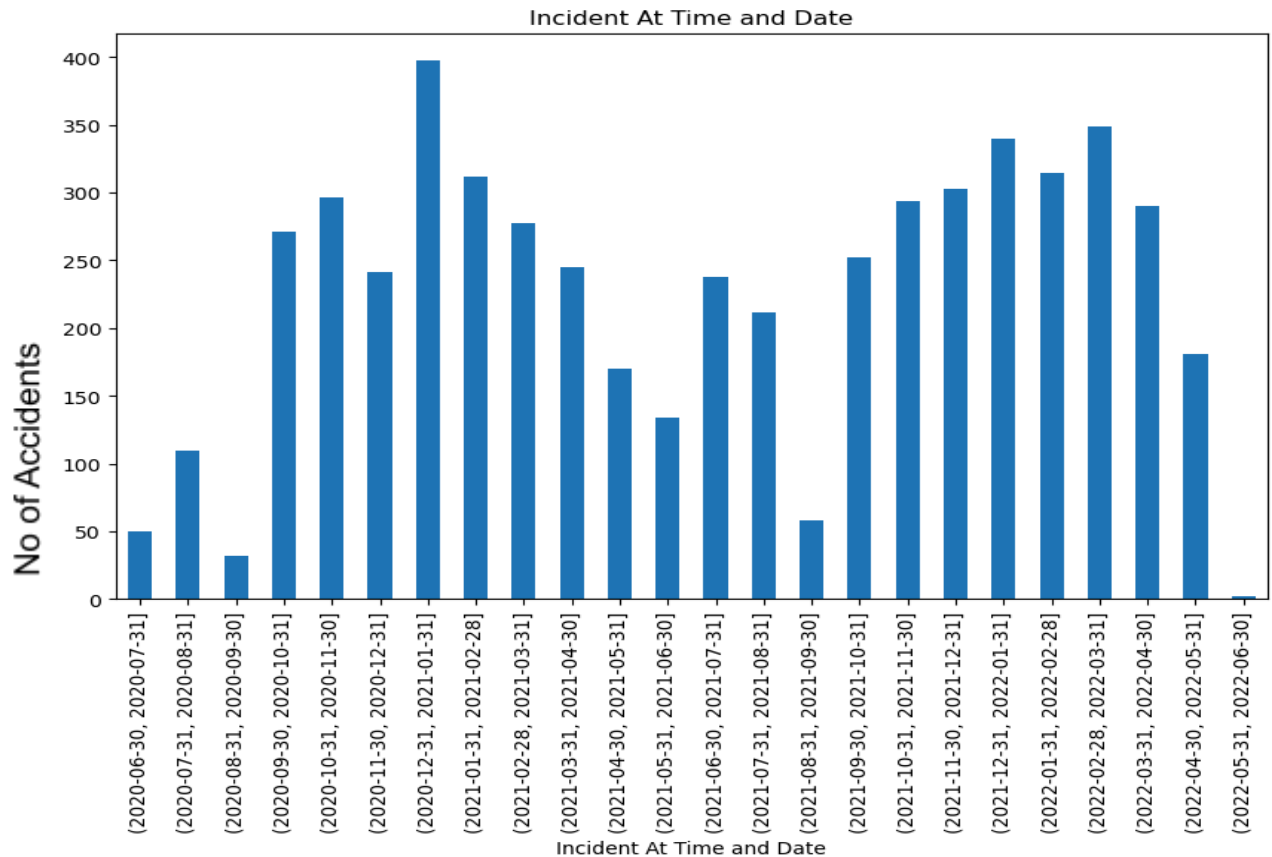


Figure 2.2 shows that most accidents occur during working hours, but a significant number also happen around midnight.

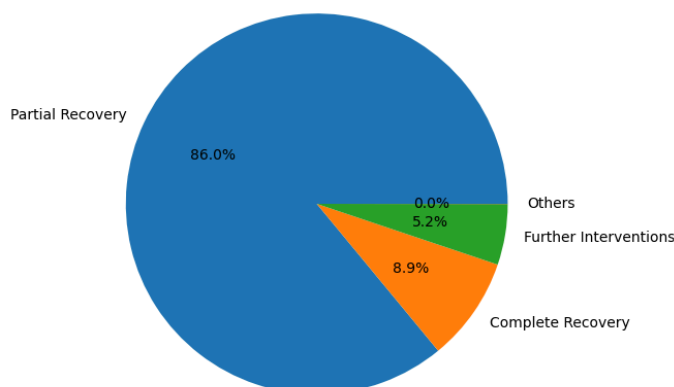
2.2 During 2 years from June 2020 - May 2022



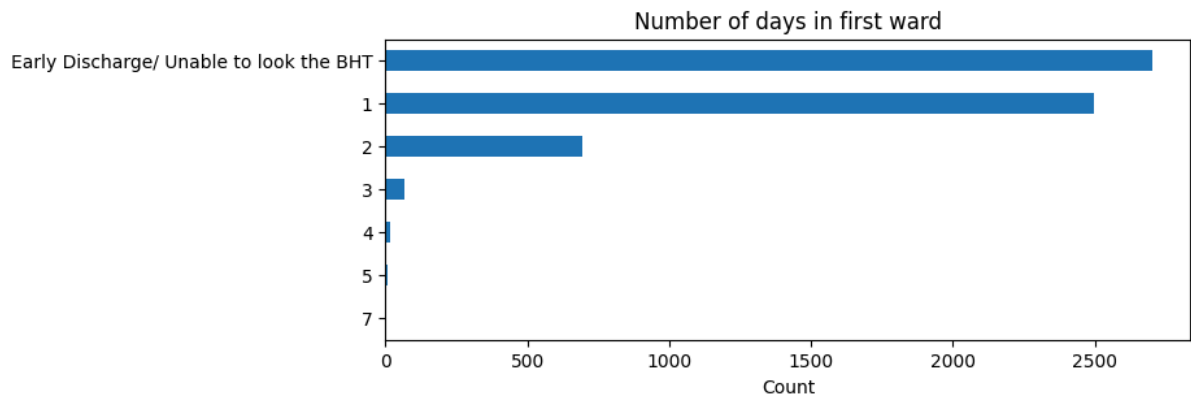
It can be noted that during the month of Septemeber in both years there is drop in the accidents . The no of accidents peak during the month of December and January in both years.

3. Discharge Outcome Analysis

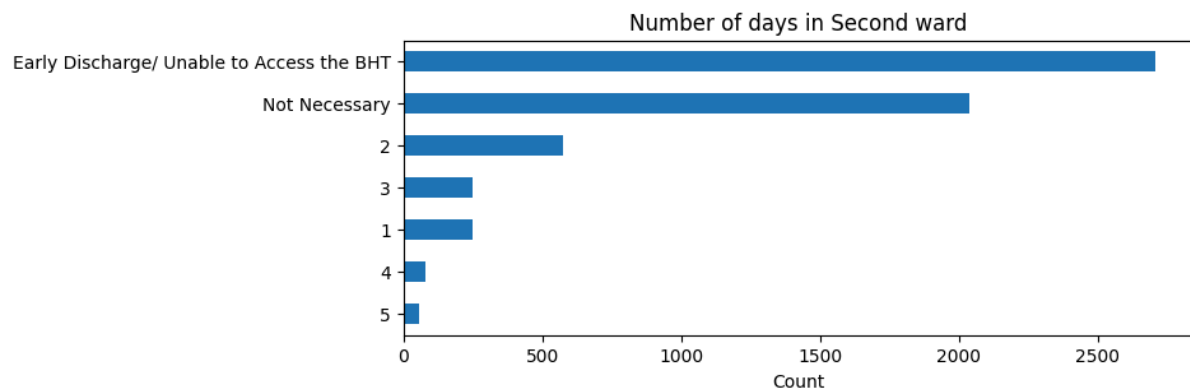
Fig 3.1 -Discharge Outcome



It is evident From Fig 3.1 , that 86.0% of the casualties discharge by recovering partially due to the scarcity of medical facilites and beds.

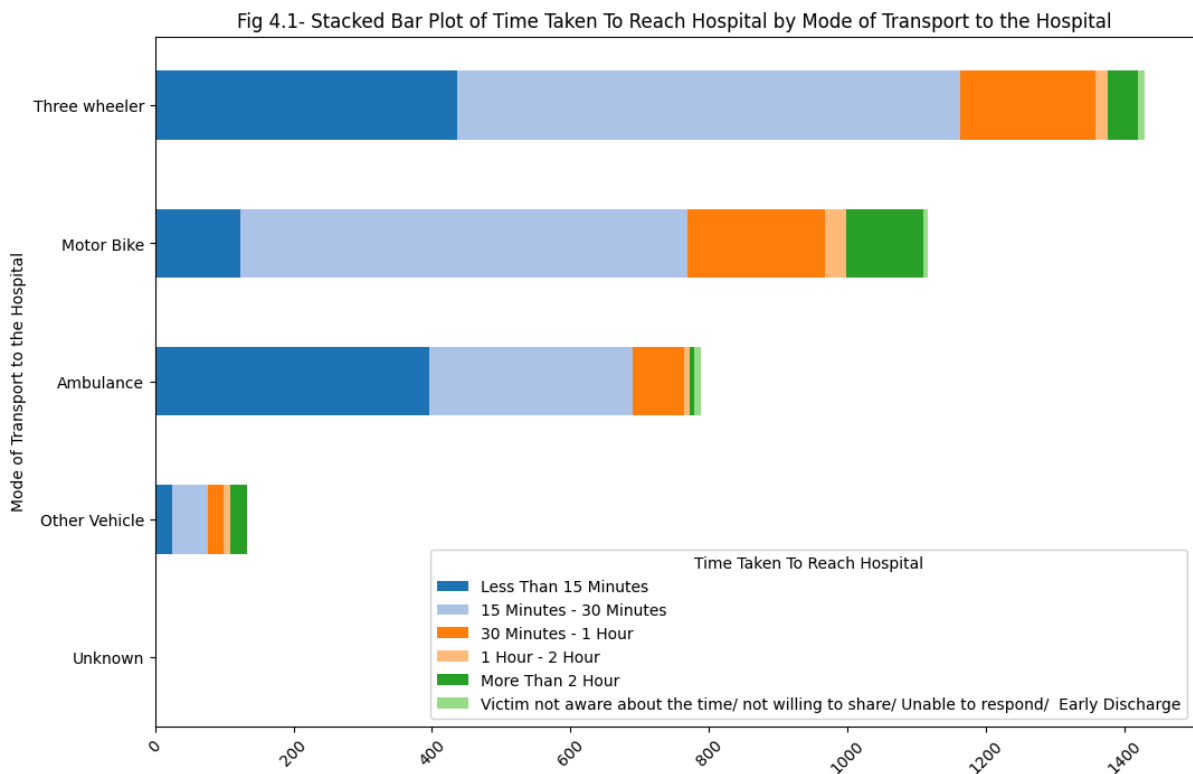


Due to limited beds in the hospitals, only 2 or 3 days a casualty can stay in the first ward and be shifted to the second ward.



Whereas in the second ward, a casualty can stay 4 or 5 days maximum . And then most of them are discharged with partial recovery.

4. Analysis of the Hospitals and Causality



The time taken to reach the hospital is a critical factor. We compared the mode of transport with the travel time to the hospital. When analyzing the mode of transport, the most common method is by three-wheelers. This is likely due to the practicality of flagging down a passing three-wheeler to transport the casualty to the hospital. However, the travel time with a three-wheeler tends to be longer compared to an ambulance, as ambulances are faster and are given priority on the road.

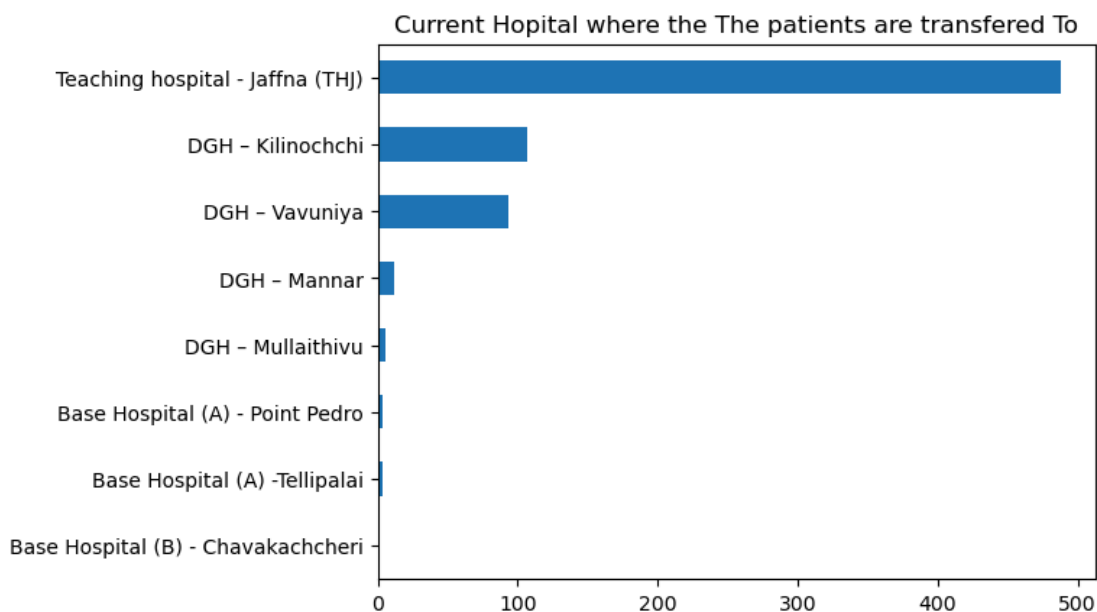
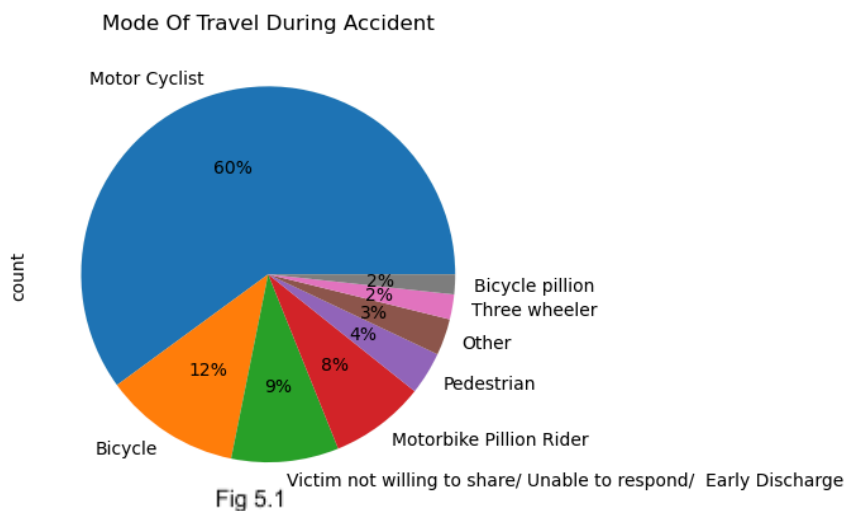


Fig 4.2

Approximately 11% of casualties are transferred to another hospital due to insufficient facilities. As shown in Figure 4.2, the majority of these 11% are transferred to Teaching Hospital Jaffna, District General Hospital (DGH) Kilinochchi, and DGH Vavuniya.

5. Injury analysis



Before analyzing the injuries, let's first examine the mode of travel during the accident, as this is a significant factor influencing the type of injury sustained. As illustrated in Figure 5.1, the majority of accidents occur while traveling on a motorcycle. However, it's

important to consider a potential bias in the data: this dataset was collected from rural areas, where most civilians primarily use motorcycles for transportation

fig 5.1 -Stacked Bar Plot of Type of injury No 1 by Site of Injury No1 for Motor Cyclist

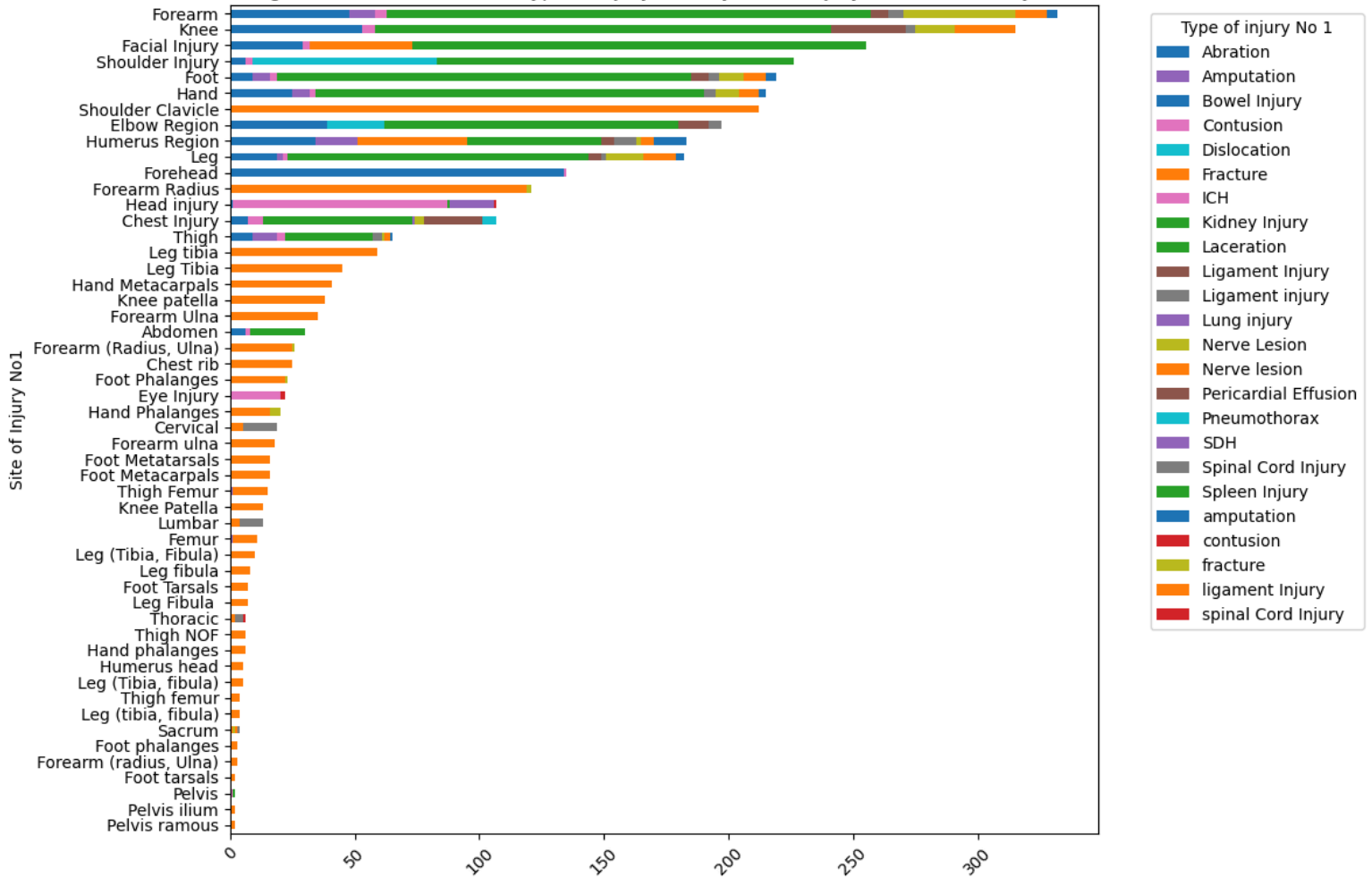
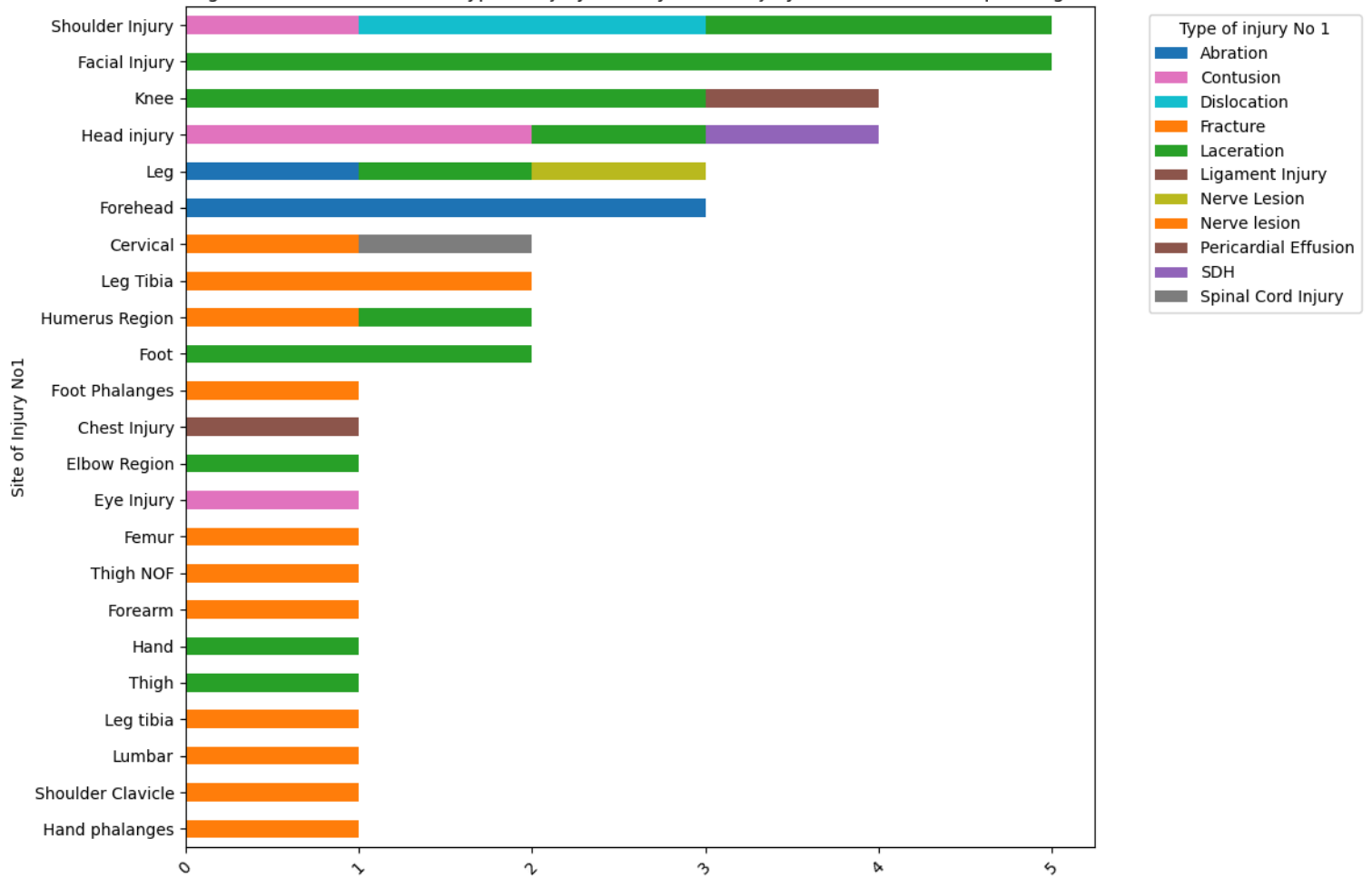


fig 5.2 -Stacked Bar Plot of Type of injury No 1 by Site of Injury No1 for car or van passenger



6. Social demographic patterns

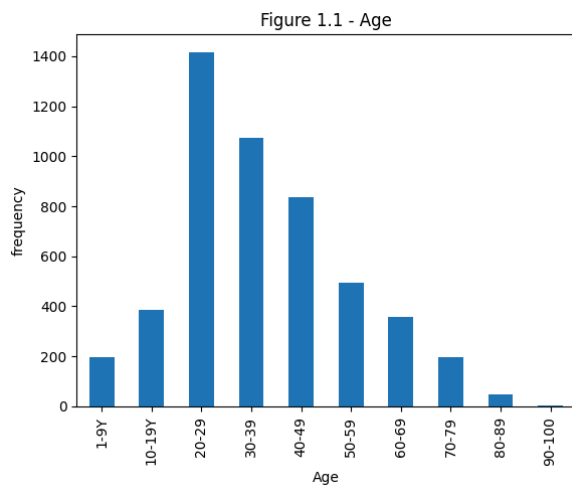


Fig 6.1

Figure 1.2 -Gender Distribution

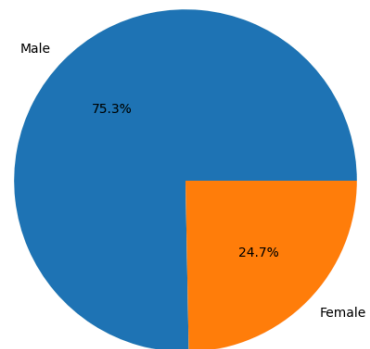


Fig 6.2

Age

Figure 6.1 shows the frequency of accident victims in each age category. It can be observed that most youngsters between the ages of 20-29 have met with accidents.

Gender

Most of the victims are Males.

Educational Qualification

From Fig 6.3, most of the casualties are OL/AL students.

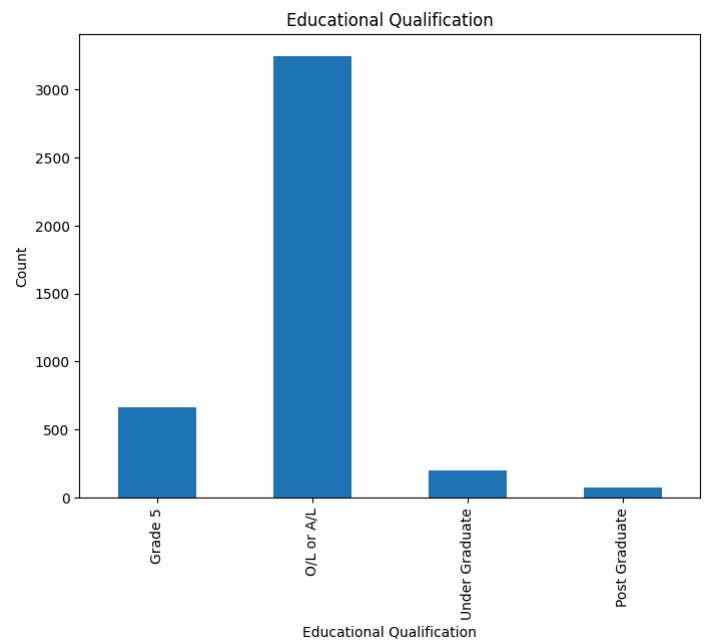


Fig 6.3

7. Financial Status

Analysis of income before and after the accident reveals that the financial status of most casualties declines.

