


PATTERN OF INJURIES AMONG VILLAGERS IN PADANG TERAP DISTRICT, KEDAH



**MBBS PHASE III A
SESSION 2004/05, CLASS 2002/07
COMMUNITY RESIDENCY PROGRAMME**

INTRODUCTION

Injuries:

- Major public health problem worldwide
- Cause potential life loss in both children and adults
- 3rd leading cause of admission in government hospitals and clinics in Malaysia¹

OBJECTIVES

- To understand various type and pattern of injuries among rural population
- To study the socio-demographic characteristics of the injuries
- To compare home and road injuries at the rural area
- To recommend control measures for further injury prevention

MATERIALS & METHODS

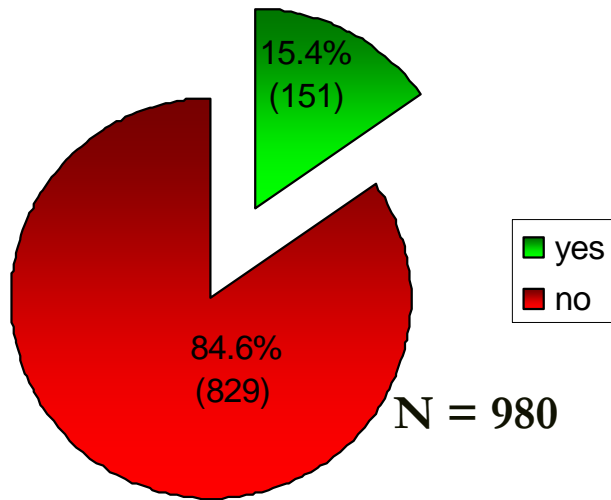
- Cross-sectional study: 4 assigned villages
- Households selected using simple random sampling (ballot)
- Sample size: 197 households
- Canvasser method using prepared questionnaire
- Interviewing head of household/cases who had injuries 1 year prior to the date of survey
- Data analysis: SPSS 11.0

ERRORS & LIMITATIONS

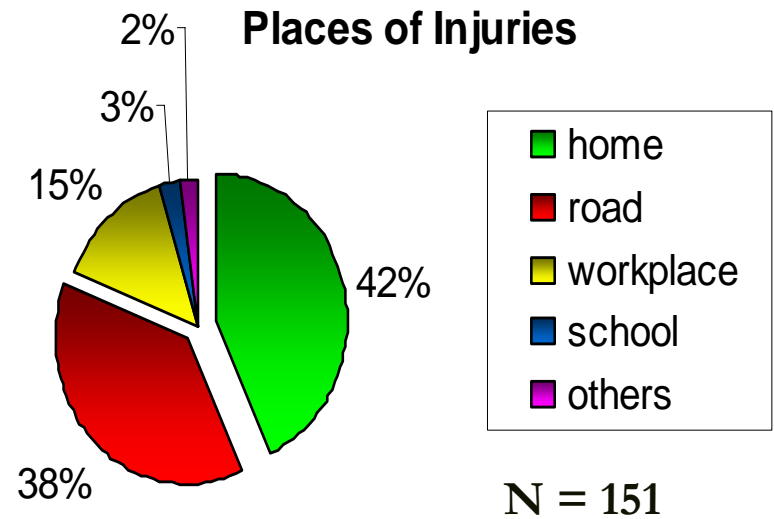
- Study sample was limited to 4 villages
- Villages were assigned (not randomly selected)
- Hence may not be representative of the population
- Failure to pretest questionnaire to the similar population
- Recall bias & language barriers (Siamese community)
- Human errors in data entry and analysis

RESULTS

History of Injury

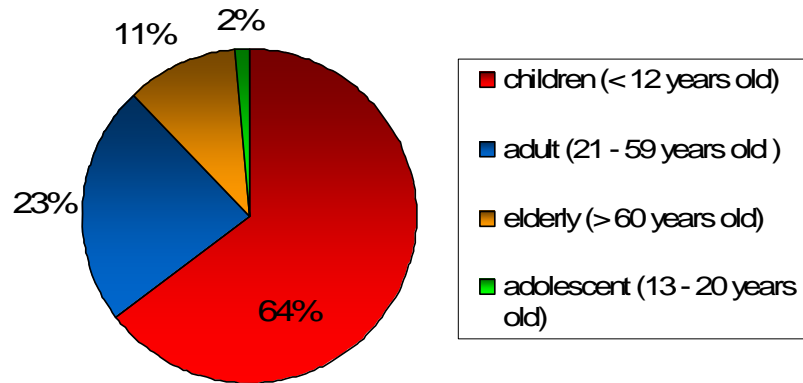


Places of Injuries



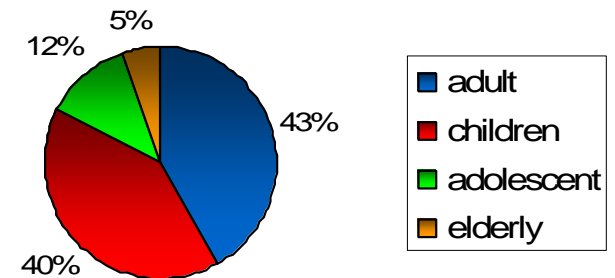
RESULTS

Home Injuries According to Age Group



N = 65

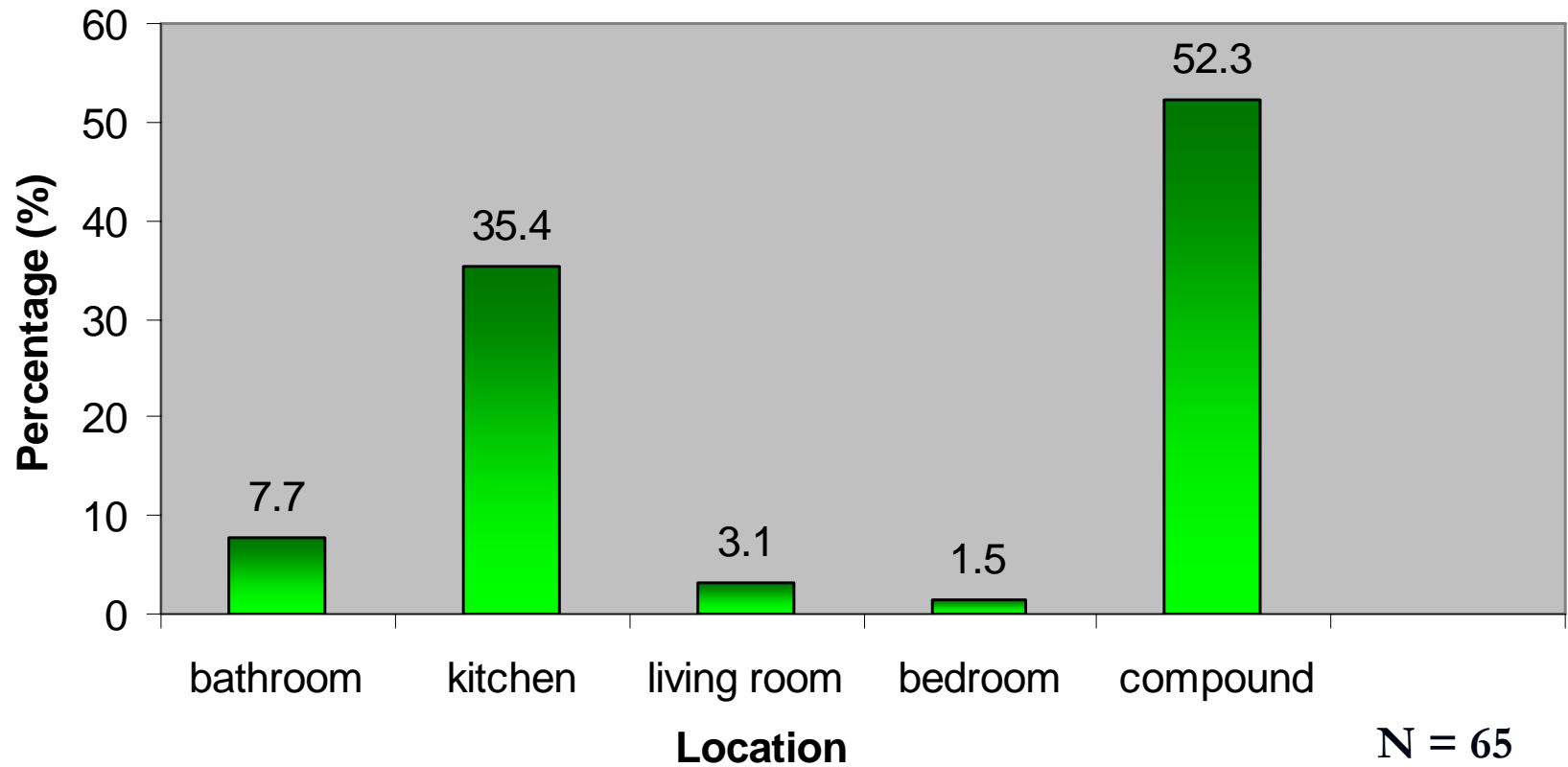
Road Injuries According to Age Group



N = 57

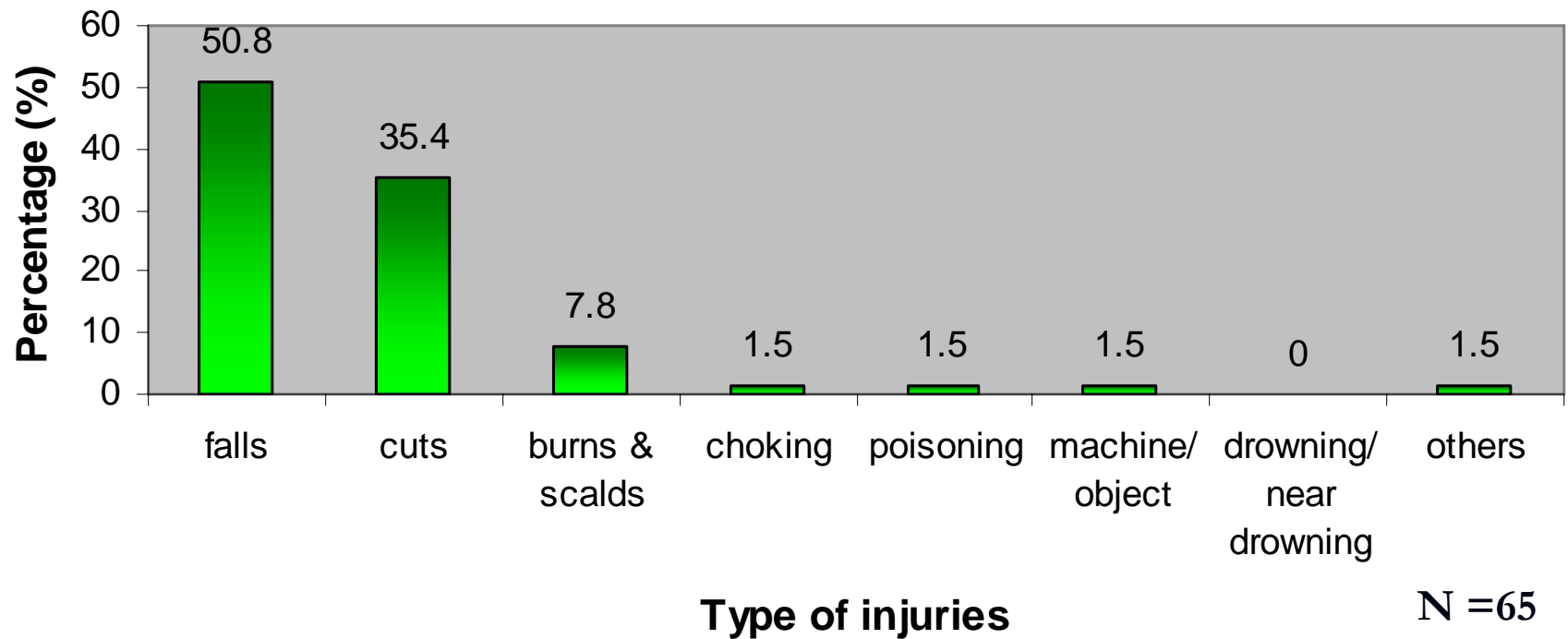
RESULTS

Location of Home Injuries



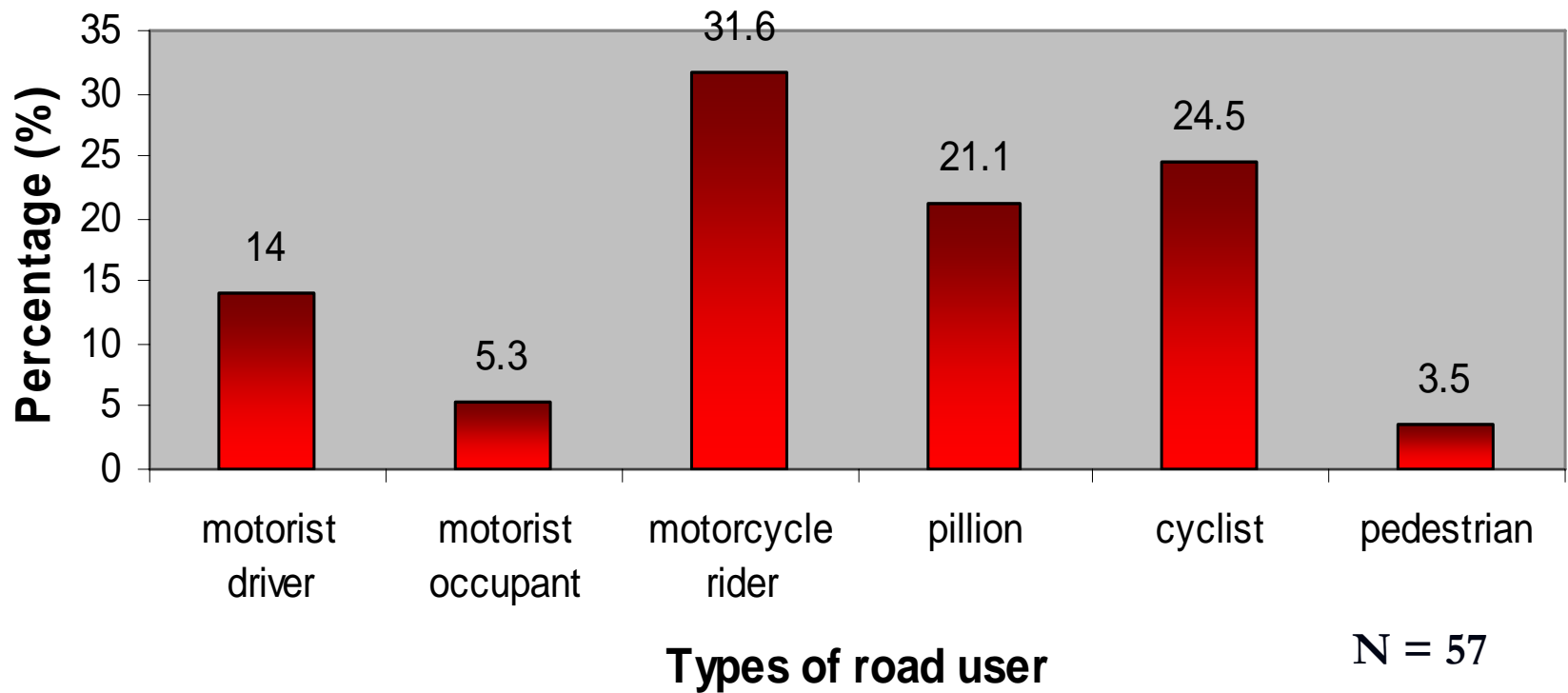
RESULTS

Type of Home Injuries



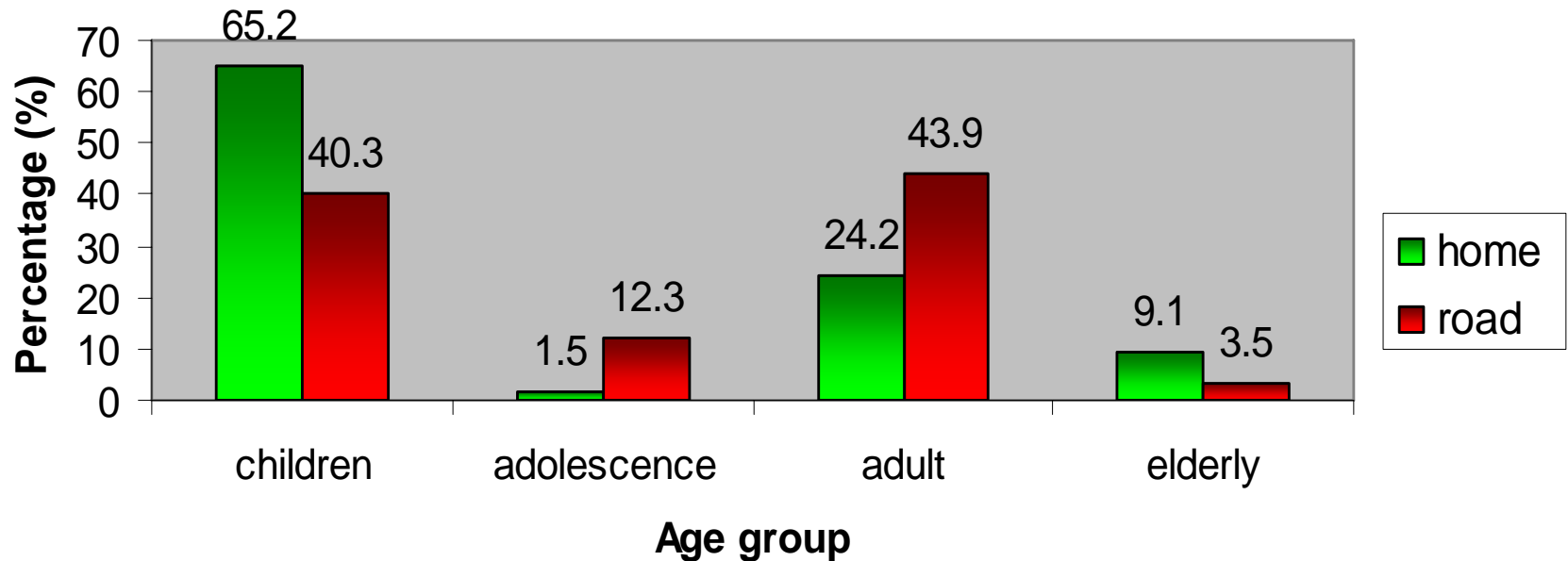
RESULTS

Types Of Road Users Involved In Road Injuries



RESULTS

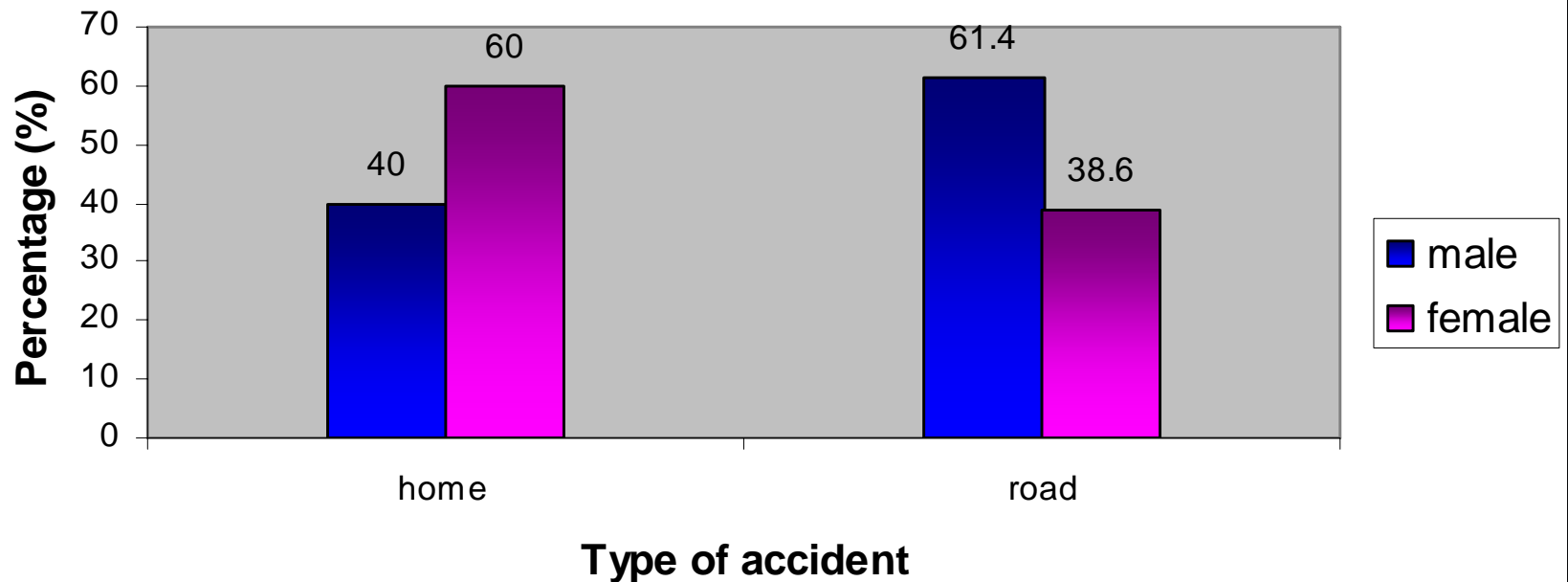
Distribution Of Home And Road Injuries According To Age Group



Home injuries = 65, Road injuries = 57, N= 122

RESULTS

Distribution Of Gender According To Home And Road Injuries



Home injuries = 65, Road injuries = 57, N= 122, $p < 0.05$

RESULTS

Distribution of Minor and Major Injuries According to the Home and Road Injuries

Severity		Minor	Major	Total
Home Injuries	Frequency	51	9	60
	%	85	15	100
Road Injuries	Frequency	31	23	54
	%	57	43	100

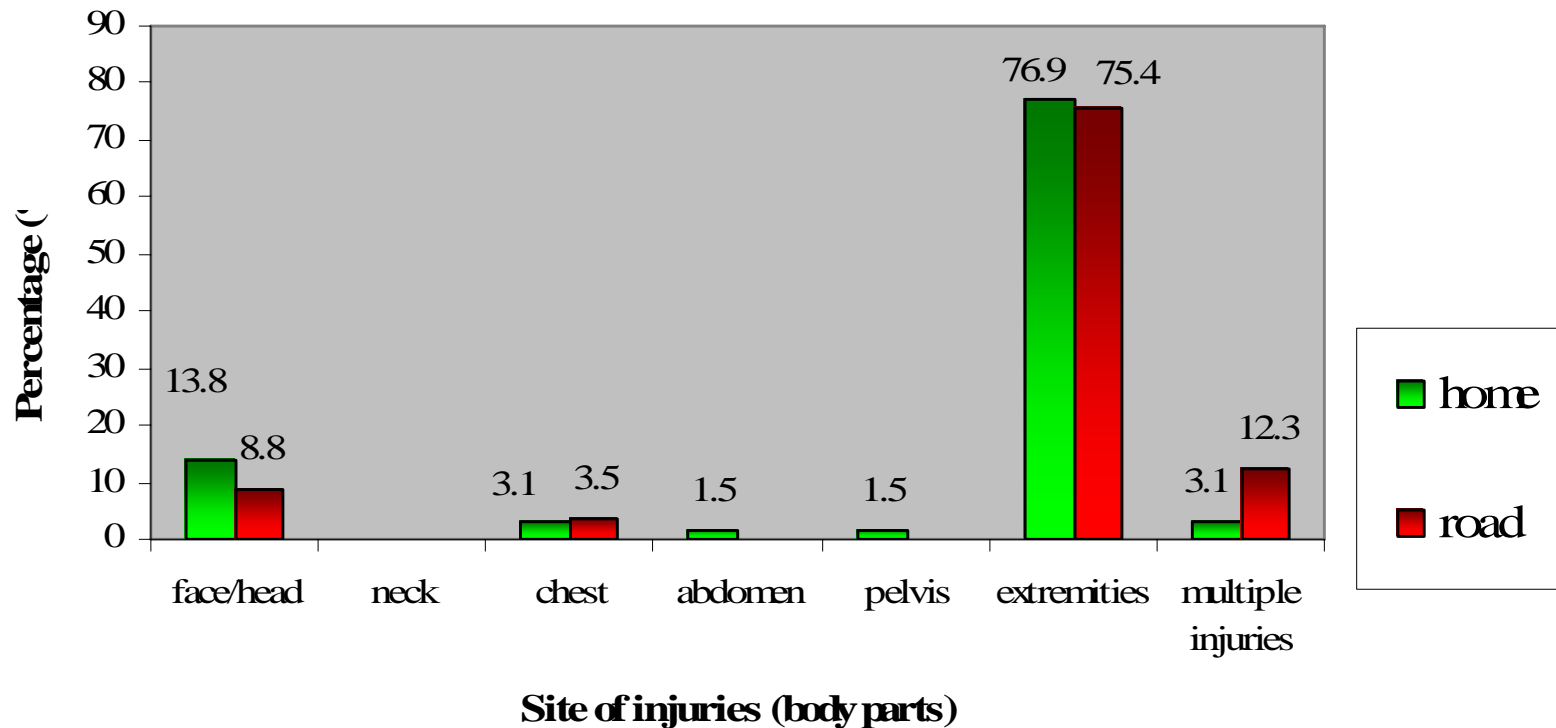
($p < 0.05$)

minor injuries : minor cut, minor bruises and sprain muscles/joints

major injuries : major haematoma, internal injuries, open wound cuts, lacerations, fracture, dislocation and head contusion

RESULTS

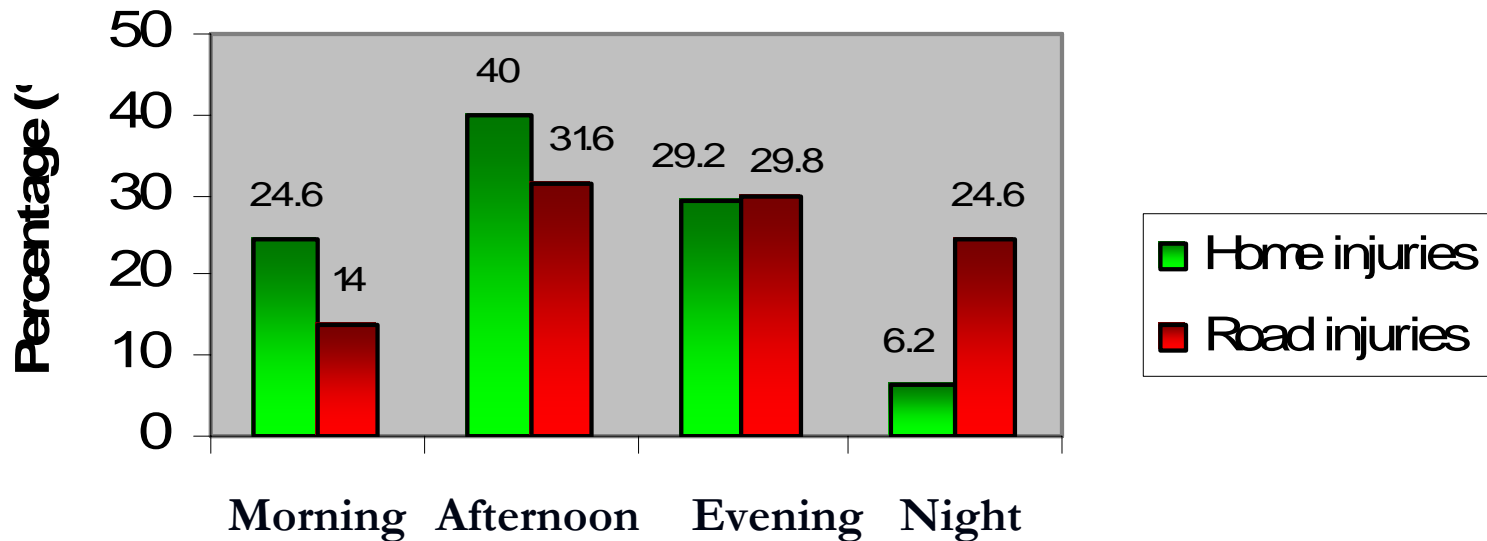
Distribution Of Home And Road Injuries According To Site Of Injuries (Body Parts)



Home injuries = 65, Road injuries = 57, N= 122

RESULTS

**Distribution Of Home Injuries and Road Injuries
According To Time**



Time of Injuries

Home injuries = 65, Road injuries = 57, N= 122

Morning: 0600-1200

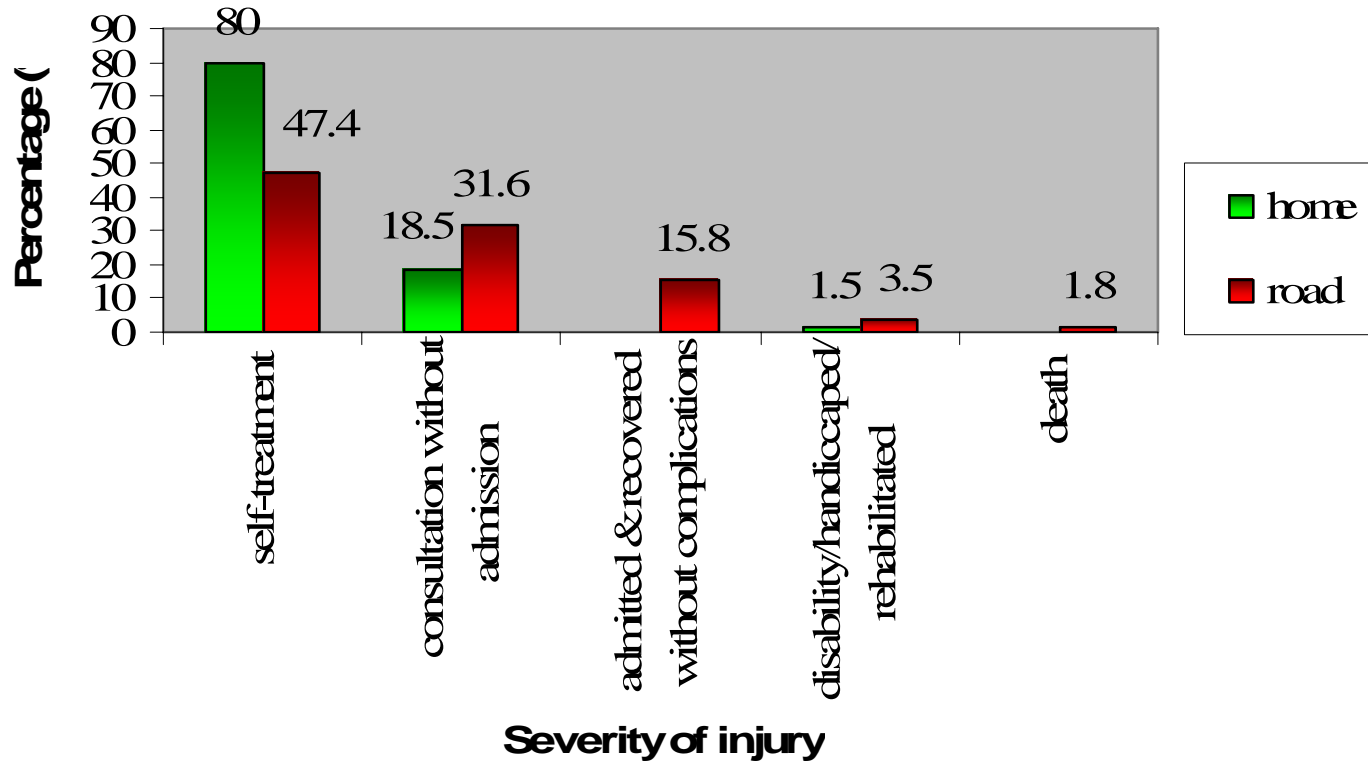
Evening: 1600-2000

Afternoon: 1200-1600

Night: 2000-0600

RESULTS

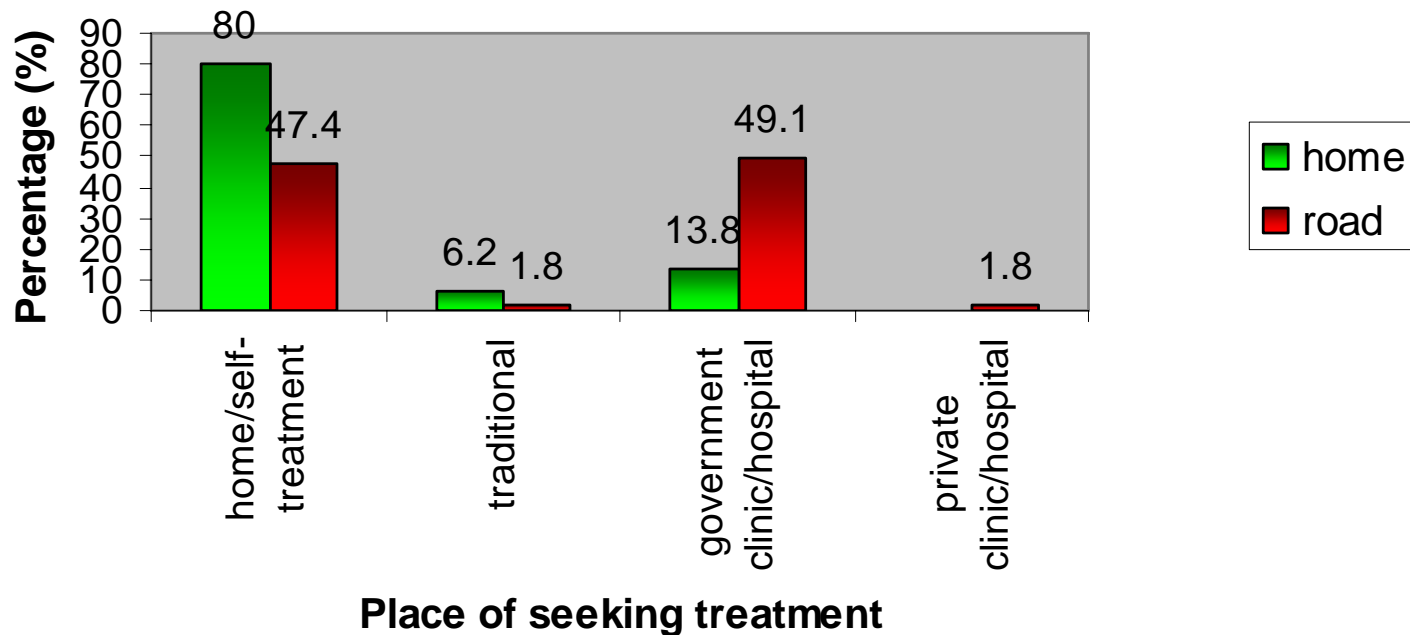
Distribution Of Home And Road Injuries According To Severity Of Injury



Home injuries = 65, Road injuries = 57, N= 122

RESULTS

Distribution Of Home And Road Injuries According To Place Of Seeking Treatment



Home injuries = 65, Road injuries = 57, N= 122

DISCUSSION

- 15% (151 cases) of the sample had a history of injury one year prior to the survey
- Home and road injuries occurred more frequent compared to other type of injuries
- Majority (64%) of home injuries involved children
 - ✓ Less anticipation of danger by children
 - ✓ Parents' negligence
- Most home injuries occurred in the compound
 - ✓ Majority of the samples were children
 - ✓ Rural children involved in outdoor activities (higher risk of injury)
- Falls account for the highest number of home injuries
 - ✓ Houses are elevated on stilts or split levels
 - ✓ Uneven flooring in house and compound
 - ✓ Limited space which is multi-serving

DISCUSSION

- Road injuries 2nd after home injuries
 - ✓ Low traffic in the district
 - ✓ Places of work closer to homes (less traveling)
- Most road users involved in accidents were motorcyclists
 - ✓ Low economic status – motorcycle more affordable
 - ✓ Higher risk of injury – lack of safety measures
- There is significant difference in the gender involved in home and road injuries
 - ✓ Females: home injuries because majority are housewives involved in house chores
 - ✓ Males: road injuries because majority of road users in villages are males who travels to work

DISCUSSION

- The nature of home injuries tend to be minor compared to road injuries
- Extremities being the commonest site injured
 - ✓ Protective reflex actions in anticipating and impending impact to shield from injury during fall
- For home injuries most occurred in the morning and afternoon
 - ✓ Housewives busy with house chores
 - ✓ Children lack of supervision because parents are busy
- For road injuries most occurred in the evening and night
 - ✓ Children come out to cycle in the evening
 - ✓ Poorly lit road predisposed to road accidents at night

CONCLUSION

- Children being the commonest age group involved in injuries
- Majority of injuries occurred at home and road
- The commonest type of home injuries was fall
- The majority of road injuries involved motorcyclist
- Home injuries tend to be more minor whereas, road injuries tend to be more severe
- Extremities being the commonest site injured

RECOMMENDATIONS

- A safe home environment
- Close supervision by principal care providers
- Safe and well-maintained playground by local authorities
- Upgrading the road conditions and providing street lights in the rural area
- Education/awareness at school and village level

REFERENCES

1. Ministry of Health, Malaysia, Department of Public Health. *Annual Reports, 1996-1999*.
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