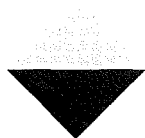


# **Study of Injury in Five Cape York Communities April 1997**

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AIHW National  
Injury Surveillance Unit



# Foreword

The National Injury Surveillance Unit (NISU) of the Australian Institute of Health and Welfare has utilised existing data on deaths and hospitalisation to document injury issues for indigenous people in Australia. During this process, limitations of the routine data collections became apparent. One of the main weaknesses appeared to be data for small communities, especially those in remote areas.

This report covers the documentation of injury in some small remote indigenous communities on Cape York. It shows how a range of information gathering techniques can provide a profile of injury that complements existing data sets, identifies areas where under-counting is likely in those collections, and provides a rich basis for the planning of injury prevention strategies at the local and regional level.

The Cairns-based Tropical Public Health Unit of Queensland Health prepared the report through the work of the project officer, Mr Douglas Gladman, supported by a steering group led by Dr Robyn McDermott. The Australian Institute of Health and Welfare's National Injury Surveillance Unit and the Commonwealth Department of Health and Family Services funded the project. Mr Jerry Moller managed the project at NISU.

It is hoped that the report will assist indigenous people and others to better understand injuries in the indigenous communities of Australia, as a basis for better prevention.

# Contents

Steering Committee .....	3
Acknowledgments .....	4
Abbreviations .....	5
Background .....	6
Summary of Findings .....	6
Conclusions .....	8
Injury Surveillance Issues in Remote Aboriginal Communities in Cape York Peninsula .....	9
Networking & Ice Breaking .....	10
 <b>Part One: Clinic File Audit (Community A)</b>	
Methodology .....	11
Findings .....	12
Evacuations .....	14
Injuries by Sex .....	15
Injuries by Age Groups .....	15
Age-Specific Rates .....	16
Injuries by Day of Week .....	17
Injury by Principal Diagnosis .....	18
External Cause of Injury .....	26
<b>Alcohol as a Contributing Factor to Injury</b> .....	33
Injury Numbers by Alcohol and Sex .....	35
Age-Specific Rates by Alcohol Status .....	37
Injury by Day of Week and Alcohol Status .....	38
Alcohol-Related Injury .....	42
Domestic Violence .....	43
Assault (excluding domestic violence) .....	45
Principal Cause of Injury With Alcohol Association .....	47
External Cause of Injury .....	51
 <b>Part Two: Case Studies</b>	
Methodology .....	55
Children .....	56
Younger Males (15 - 30 Years of Age) .....	58
Females .....	61
Older Males ( > 30 Years of Age ) .....	64

<b>Part Three: Comparison of Injuries at Two Cape York Communities</b>	
Methodology .....	67
Results .....	67
 <b>Part Four: Emerging Issues</b>	
Focus Groups .....	73
Workers Compensation .....	74
Third Party Insurance .....	74
Counselling Needs .....	74
Infrastructure and Equipment .....	74
 <b>Appendixes</b>	
A Consent Form .....	75
B Focus Groups .....	76
C1 Focus Groups .....	78
C2 Focus Groups .....	78
D1 Case Study 1 .....	79
D2 Case Study 2 .....	82
 References .....	 83

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Introductions into the communities by Mr Wilfred Gordon, Dr Ian O'Rourke, Ms Leanne Ramsamy and Mr Robert Cockatoo were greatly appreciated.

The efforts of the following people who have contributed to this project are gratefully acknowledged.

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The Directors of Nursing, Aboriginal Health Workers & Administrative Staff, & Registered Nurses in the Health Clinics of Hopevale, Kowanyama, Lockhart River Pormpuraaw & Wujal Wujal

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Kowanyama Refuge Centre  
Health Workers

Ms Veronica Williams  
Department of Social Security

Mr Chris Dodd  
Director of Nursing  
Pormpuraaw

## And Mostly

The Aboriginal community members who have participated in this project, from whose honesty and trust I have derived inspiration.

Douglas J. Gladman  
Project Officer

# Abbreviations

A.B.S.	Australian Bureau of Statistics
C.D.E.P.	Community Development Employment Project
E Codes	External Cause Codes
E.H.I.B.	Epidemiology and Health Information Branch, Queensland Health
I.C.D.-9-C.M.	International Classification of Diseases, Ninth Revision, Clinical Modification
N.I.S.U.	National Injury Surveillance Unit of the Australian Institute of Health & Welfare
T.P.H.U.	Tropical Public Health Unit
N.H.M.R.C.	National Health and Medical Research Council
N.O.S.	Not Otherwise Specified
R.F.D.S.	Royal Flying Doctor Service

# Background

During 1995 a group of community representatives and health professionals came together to plan a pilot project to address the large and increasing public health problem of injury in Aboriginal communities in the Cape York and Cairns District Health Services of Queensland Health. Between 1989 and 1994, injury (accidents, suicide and homicide) accounted for 51% of the excess deaths in Cape communities in the 15 - 44 year age group (I. Ring, EHIB, Queensland Health). At the community level there was very little awareness of, and very little information about the burden of injury in the community, underlying causes, adequacy of responses, need for prevention and legal matters relating to access to workers' compensation, third party insurance etc.

In a series of meetings involving senior members of community councils, Queensland Health, Apunipima Cape York Health Council and the Aboriginal Co-ordinating Council, a project design was agreed which would include case studies, focus group sessions and an epidemiological audit of injury events in one or two communities. A Project Officer position was funded by the National Injury Surveillance Unit (NISU) and the Tropical Public Health Unit (TPHU) agreed to be the lead agency and to support the project with accommodation, travel and data management. Professor Ernest Hunter provided leadership in the analysis of the case studies.

The project was approved by the Cairns Base Hospital Ethics Committee in March and the Project Officer commenced in August 1996. The Project Officer spent extensive periods in communities conducting focus group sessions, case study interviews and collecting clinical data on injury events. This report is divided into 4 main sections: epidemiology of injury in Community A (12 month case note audit), case narrative summaries, comparison of injury events in two remote communities, and major issues arising from the project.

## Summary of Findings

### 12 month Case Note Audit in Community A

Due to the poor quality of the daily clinic register data, a detailed case note audit covering 12 months was undertaken in one remote community which had a canteen (selling beer only). The main findings from this study were:

- Injury accounted for 24% of all initial clinic presentations and 34% of evacuations.
- Only a very small fraction of total injury events (1 out of 683) resulted in death.
- Only a small proportion (7.6%) of injuries resulted in evacuation to a larger centre (n=52).
- Assault including Domestic Violence accounted for 292 (42.8%) of injuries. Other leading causes of injuries were Falls, Transport accidents, Cutting and Piercing accidents, Dog Bites and Petrol Sniffing.
- Among under 16 year olds, injury rates were very high (40/100 for girls and 70/100 for boys).
- 51% of all injuries in the community were associated with alcohol.
- Among 16 - 44 year-olds, injury rates not associated with alcohol were also very high (44/100 for women and 73/100 for men).
- Among 16 - 44 year olds, rates of injury associated with alcohol were extremely high (99/100 for women and 116/100 for men).
- Injury events not associated with alcohol were spread evenly over the week.



- Injury events associated with alcohol were concentrated around pay-days (Thursday, Friday and Saturday) and canteen opening days.
- Injuries not associated with alcohol had a male:female (M:F) ratio of about 2:1 in all age groups (similar to national ratios).
- Injury associated with alcohol affected men and women nearly evenly in the 16 - 44 age group.
- Alcohol-associated injury was overwhelmingly due to assault by another person, including domestic violence.
- Approximately 93% of the over 15 year olds in Community A drink alcohol regularly.
- Average weekly alcohol consumption is 26 cans of full-strength beer per drinker (@\$2.50 per can = \$65 per week). This equates to approximately 40% of the total indigenous income for Community A being spent on alcohol (as defined in Table 7).
- Estimated weekly per capita income (this includes children 0 - 15) is \$103 from CDEP and Social Security.

## Case Studies and Focus Groups

Thirty three cases of injury events were recorded from 5 communities. These event narratives were analysed thematically in six domains: underlying, predisposing, and precipitating causes, the event, response and outcome. They were also grouped demographically into children, women and younger men for analysis. The focus groups identified the following issues as priorities in addressing problems of injury in the communities;

- Need for counselling after the event
- Need for social alternatives for young people in communities (apart from alcohol and violence)
- The issue of payback in injuries
- Access to worker's compensation
- Access to third party insurance redress
- Training of health staff and adequacy of emergency equipment and procedures

## Comparison of Two Remote Communities

Despite the known uneven quality of daily clinic register data, register data was gathered from two remote communities covering a 6 month period to compare reported injury rates, including alcohol-attributed rates in a community with a canteen (A) versus one without (D). This data is less reliable than the clinic note audit for Community A, particularly with respect to possible differences in recording of alcohol association. The main findings were:

- The overall and age-specific injury rates for Community A were double those for Community D
- The proportion of injury attributed to alcohol was similar in both communities
- In the 15 - 49 year age group the M:F injury ratio for all injuries was 1.2:1 in Community A and 1.6:1 in Community D. That is, Community D had close to the national ratio (about 2:1) but in Community A there were relatively more injuries in females.
- In the 15 - 49 year age group the M:F ratio for alcohol-attributed injuries was unexpectedly low in Community A (0.89:1) possibly due to systematic differences in alcohol attribution by gender.

- In the 15 - 49 year age group in Community D, the M:F ratio for alcohol-attributed injury was 2.1:1, similar to national ratios.
- These findings suggest that recording of injury and alcohol-related events in the current daily clinic registers is poor. However, the presence of a canteen in the community and remoteness from a town centre appear to be the main differences in the two communities which could account for the large apparent excess of injury in Community A.

## Conclusions

- This is the first comprehensive analysis of injury in Aboriginal communities in Australia to incorporate data collected from community health services. Previous assessments have relied on hospital separation and mortality data. In addition, important qualitative data was collected from focus groups and personal interviews.
- Rates of injury in Community A appear to be very high, particularly for young adults.
- Assault, including Domestic Violence, was identified as the most common cause of injury. Other important causes included Accidental Cutting and Piercing, Falls, Transport accidents, Petrol Sniffing and Dog Bites.
- Alcohol appears to play a major role in the high rates of injury noted in Community A. However, injury causation in Aboriginal communities is complex and many factors are involved.
- A series of strategies, both community-based and interdepartmental need to be directed at appropriate points of intervention. The strategies should address identified problems such as unemployment, interpersonal violence, transport accidents, substance abuse, workers' compensation, third party insurance payments, unsafe vehicles, and unsafe environments. Appropriate departments include the police, legal services, local government, health, transport and education as well as interested community members.
- Research is needed to further quantify the role of alcohol abuse in injury and other community health problems including malnutrition and poverty. This information should be presented to community councils in a meaningful way that can lead to appropriate intervention programs.
- Further research should be undertaken to examine the provision of appropriate services in communities with respect to the burden of injury and alcohol abuse.
- The construction of new canteens, or expansion of existing ones, have implications for injury in Aboriginal communities. There needs to be a process in place whereby concerned community members and other interested parties such as the police, health department, education department, health council and health action groups can participate in the decision making and planning process.
- The reliance on canteens as a major source of income in communities highlights the need to explore innovative alternative sources of income.
- The identification within case studies of violence resulting from trespass, highlights the need for additional space and measures to improve security (ie. larger house blocks, appropriate fencing and outer rural subdivisions).
- Issues of workplace health and safety as identified in the case studies (emergency equipment supply and maintenance in Queensland Health vehicles) should be addressed by the appropriate District Health Service.

- Case studies revealed poor knowledge of first aid principles among Aboriginal people. Community-based training programs in first aid should be implemented. Other issues including increased staff training and skills maintenance in first aid among health workers also need to be addressed by the District Health Service.
- Community-based information systems designed to accurately capture illness and injury data should be developed. This study highlighted deficiencies in the current system (such as identification of alcohol-associated injuries). The establishment of uniform injury registers to enable the collection of good quality standardised data on injury (including severity indicators, alcohol association and outcomes) as well as monitoring progress of interventions. Such an information system be used to inform the community periodically of injury events in a meaningful way and of community trends in injury.

## **Injury Surveillance Issues in Remote Aboriginal Communities in Cape York Peninsula**

Our experience with this project has highlighted several issues relating to the collection, analysis and reporting of injury information in remote communities. These stem from the main findings of the survey:

- 1) The burden of injury in the community with a canteen ('Community A') is extremely high (among males in the 16 - 44 age group, rates exceed 180/100 per year).
- 2) Only a very small proportion (less than 8%) of these injury events result in a hospital admission (and are therefore reported in routinely collected Health Department statistics).
- 3) Routinely collected hospital separation data shows that people from Cape York Aboriginal communities are admitted to hospital for injury at 3-4 times the rate of other Queenslanders.
- 4) Current daily clinic register information is of uneven quality and very limited in the information collected and cannot be used for reliable reporting.
- 5) Alcohol is a significant contributor to injury events (at least 50% of all injuries and 88% of Assault injuries were associated with alcohol).
- 6) A comparison of injury events from clinic registers in two communities suggested that, even controlling for reported alcohol-association, the community which had a canteen had a much higher rate of total injury events (including injuries not associated with alcohol) than the community with no canteen (very small sample of two).
- 7) Community groups are very interested in receiving this type of information.

There are limitations in the usefulness of injury information coded using the ICD-9 system:

- No information on the proximate or intermediate determinants of the injury event
- Does not readily identify precipitating factors, especially alcohol and other drugs
- No indication of the severity of the injury.

Therefore it is proposed that a clinic-based injury information system, to be useful as a tool for clinical quality assurance, health service planning and providing information to the community as a basis for possible community action, would need to have the following attributes:

- 1) Simplicity (able to be used by all health staff, particularly Health Workers)
- 2) Validity of data items (including standard definitions, reproducibility)
- 3) Include only data of use to the clinic staff and the community
- 4) Preferably able to be analysed locally, or well-supported by competent data managers
- 5) Easily integrated with existing functioning information systems.

Essential data items would probably include:

- Personal details: name, date of birth, unique record number, Aboriginality, sex, address (community)
- Date (include day of week), time
- Injury description or category code (a simpler coding than the ICD-9)
- Alcohol-association (as a Yes/No variable) defined as whether the victim (or perpetrator in the case of an assault) was noticeably affected by alcohol at the time. This is still problematic as it may vary according to the judgement of the staff member.
- Some index of severity (a very simple one), the easiest would probably coincide with the criteria for triage categorisation used in Emergency Departments of hospitals (eg.1,2,3).

These data items would generate a great deal of information which could be managed locally using Microsoft Access, Epi-Info or whatever program might be in place. A six monthly report could be generated for the community council, using mainly pictographs. Such systems have been developed in central Australian Aboriginal communities to relay community survey information to community groups.

## Networking & Ice Breaking

The design of this project made it necessary for the Project Officer to spend periods of up to 6 weeks in remote communities. To respect the culture and privacy of Aboriginal people, every effort was taken to ensure that agreed protocols were followed when visiting communities.

This initially involved networking with stakeholding organisations including the Apunipima Health Council who were extremely influential in creating additional links within organisations and communities.

The Aboriginal Co-ordinating Council were advised of the objectives of the project, and of all subsequent visits into the relevant communities. The Council Chairpersons and Council Clerks of all participating communities were contacted and permission sought for visits including advice on the purpose of the project, and the type of material being collected. The Cape York District Health Service of Queensland Health was kept informed of this process and progress.

The Directors of Nursing, the Aboriginal Health Workers and the Aboriginal administrative personnel within health clinics were also advised of impending visits, the material being sought and any intended community initiatives. Where possible, initial visits were in the company of Senior Aboriginal Health Workers or representatives from Apunipima Cape York Health Council.

Senior management of the Queensland Police Service were informed of the project. This promoted good working relationships with Police Officers at the community level.

A working relationship was also established with Officers from the Department of Social Security.

# Part One:

## Clinical File Audit for Community A 1st November 1995 to 30th October 1996

Community A is in a remote area of Far North Queensland. It has a single health centre staffed by Registered Nurses, Aboriginal Health Workers as well as visiting Doctors.

### Methodology

An initial analysis of clinical registers was undertaken within each health clinic. Statistical data derived from monthly clinical registers was found to contain inconsistencies making it insufficiently reliable for proper epidemiological analysis. Attempts were made in some clinics to edit the material by allowing for the identified discrepancies, however the resulting information was found to be still unreliable.

During a meeting which included Aboriginal Health Workers, the Director of Nursing and the Registered Nursing staff of a Community Health Clinic it was decided that the only way that good data could be obtained was through a complete file audit. It was also agreed that possible seasonal conditions contributing to injuries could only be identified by conducting the audit over a period of 12 months. Registered nursing staff then accessed all the clinical files for the Community and key data items from each file (age, sex, date of injury, type of injury, mention of alcohol-association, outcome (including evacuation and death)) were recorded manually.

To preserve confidentiality, names were deleted and each patient was allocated a number to allow for analysis of injuries at the level of individuals.

Aboriginal Health Workers assessed a printout of all members of the community currently filed in the clinic. Each person was assessed as to their current place of abode and all persons who had resided in the community during the period of the audit were included. Itinerant families who regularly returned to the community were included in the census.

The knowledge of the health workers was used to determine that all community members were currently recorded at the clinic. This resulted in a reasonably accurate population census for place of usual residence.

Each person identified by the census as being in the community was discussed individually by the Aboriginal Health Workers, and all persons who regularly consumed alcohol were recorded as consumers. Persons who drank alcohol only on special occasions were not included. Younger health workers identified the number of underage drinkers regularly consuming alcohol. This allowed a reasonably accurate assessment of the percentage of regular drinkers over the age of 15 in the community.

The audit analysis was derived from material entered into an Epi Info database which included the use of the International Classification of Diseases (Australian Version), 9th revision, Clinical Modification (ICD-9-CM) coding system which identified:

- The Principal Injury
- The External Cause (E codes)

## Findings

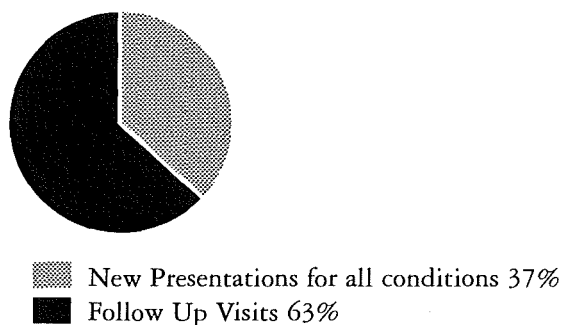
Only 1 injury in this community during the 12 month audit period resulted in death. Total clinical consultations averaged 11.9 visits per person annually. (Table 1)

**TABLE 1**

	No.
Total population	649.0
Total clinical consultations	7714.0
Average annual clinical consultations per person	11.9

**FIGURE 1A**

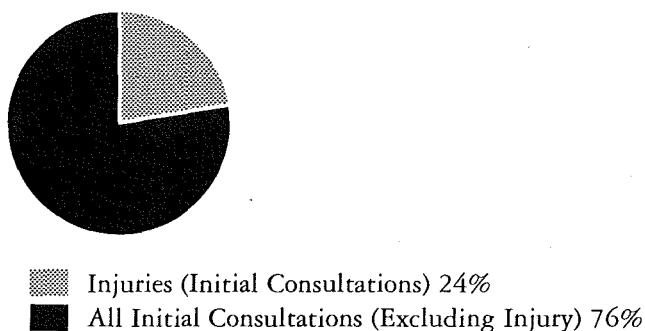
All Consultations for Community A, November 1995 to October 1996



An estimation of initial visits to the clinic for all conditions was undertaken. New presentations for treatment represented approximately 37% of the overall visits (see Figure 1A). In addition, there were 683 new visits for injury treatment which represented 24% of the estimated overall initial visits. (Figure 1B)

**FIGURE 1B**

Injury as a Proportion of all Initial Consultations for Community A, November 1995 to October 1996



A small number of injuries were examined and follow-up treatment varied from nil to 18 in some serious injuries. The absence of follow-up in some instances and the large number of subsequent visits in others, are areas that will need further investigation before the full impact of injuries on current infrastructure and resources are available.

**TABLE 2**

	No.
Number of new injury consultations	683
Estimated number of overall new consultations	2854
Total number of consultations	7714

Three hundred and twenty one people (49% of the population) had a total of 683 new injuries during the 12 month period. (Table 3)

**TABLE 3A**

	No.
Total no. of injuries	683
Total no. of patients	321
Range	1 - 9
Mean injury rate per person	2.1

**TABLE 3B**

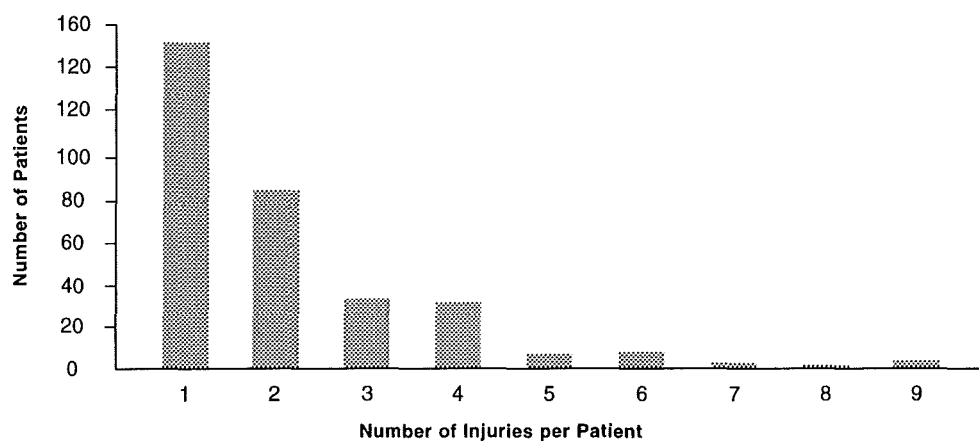
	No.
Total population	649
Total no. of patients	321

Percentage of community suffering injury annually = 49%

One hundred and fifty one patients were recorded as having only one initial visit for injury annually while the highest number of visits recorded for separate injuries by four patients was nine.

**FIGURE 2**

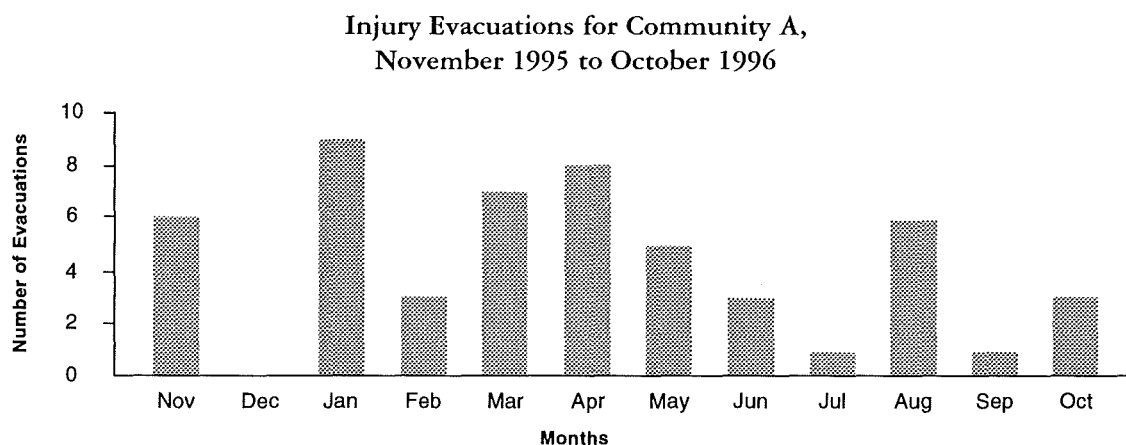
Frequency of Injuries for Individual Patients, Community A,  
November 1995 to October 1996



## Evacuations

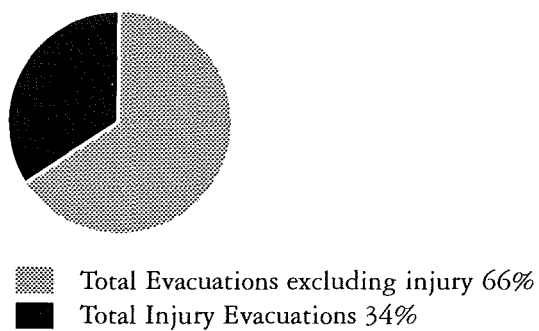
Injury accounted for 34% (52) of all evacuations (154) in the 12 month period. Monthly injury averages varied throughout the year. (Figures 3 and 4)

**FIGURE 3**



**FIGURE 4**

**Percentage of Injury Evacuations for Community A,  
November 1995 to October 1996**





## Injuries By Sex And Age Group

Four hundred and one (59%) injuries occurred in males, with 282 (41%) injuries in females. (Figure 5)

**FIGURE 5**

Injuries by Sex for Community A,  
November 1995 to October 1996

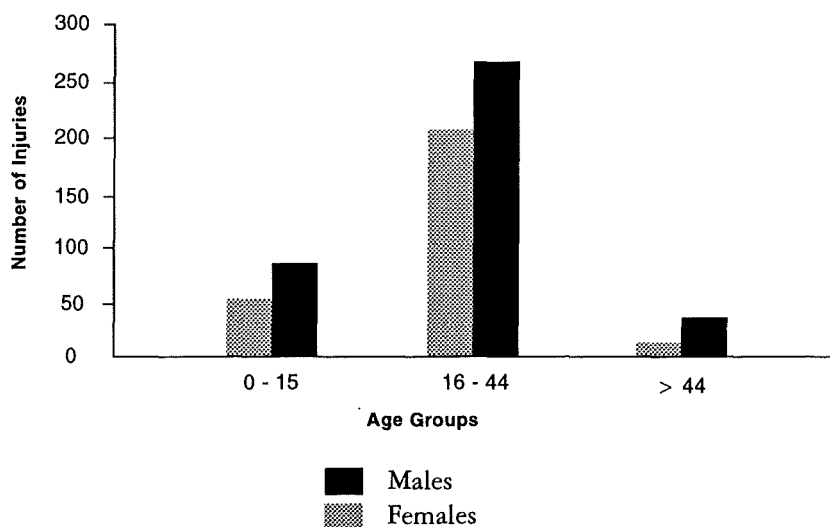


The numbers of injuries by sex and age group revealed that males are more likely to incur injuries in all age groups. (Figure 6)

Females in the over 44 year age group incurred only 17 (30%) of the injuries within that group, with females incurring 54 (37.5 %) injuries in the 0 - 15 age group and a noticeably higher recording of 211 (43.6%) in the 16 - 44 age group. (Figure 6)

**FIGURE 6**

Number of Injuries by Sex and Age Groups for Community A,  
November 1995 to October 1996



## Age-Specific Injury Rates For All-Causes

These are shown in Figure 7 and generated from the actual numbers in Table 4. Rates are particularly high in the 16 - 44 age group, where the M:F ratio is also smaller. The role of alcohol in the high rates of injury in this age group is prominent and accounts for the higher rates among women (see page 33, Alcohol as a Contributing Factor in Injury).

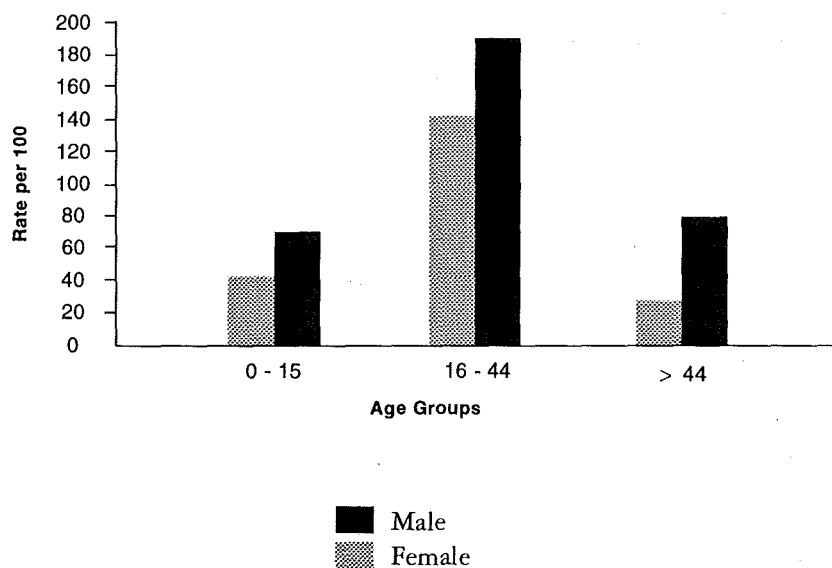
**TABLE 4**

**Age-Specific Injury and Population Numbers for Community A**

Age Groups	Female		Male	
	Injuries	Population	Injuries	Population
0 - 15	54	125	90	128
16 - 44	211	149	272	143
> 44	17	55	39	49
Total	282	329	401	320

**FIGURE 7**

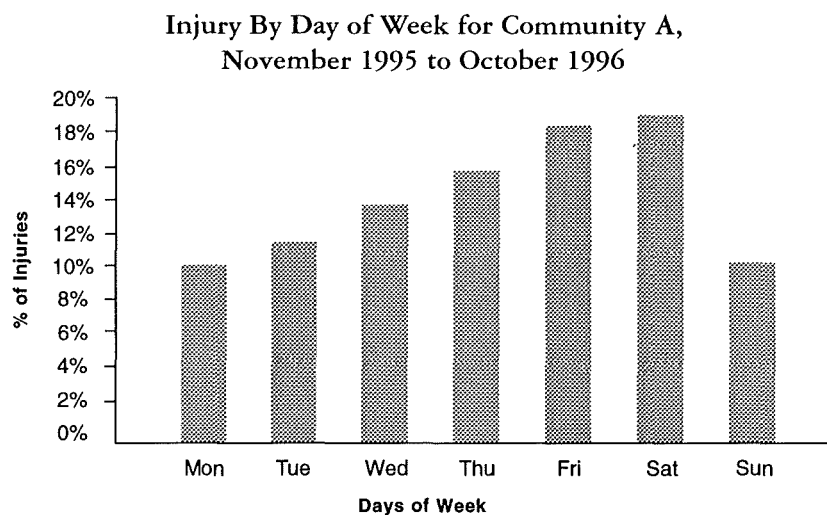
**Age-Specific Rates for all Injuries By Sex and Age Group for Community A,  
November 1995 to October 1996**



## Injuries By Day Of The Week

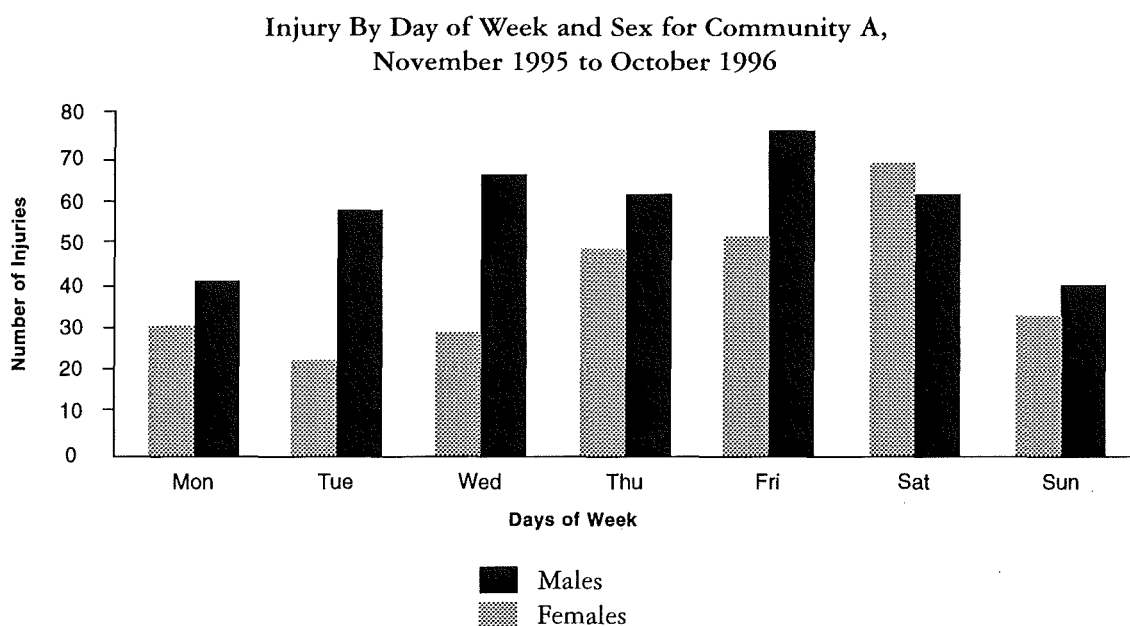
Analysis of injury by day of the week revealed that Sunday and Monday had the lowest percentage of injuries with 10.6% (73), and 10.2% (70) respectively. A daily increase in injury percentages was recorded from Tuesday with 11.5% (79) peaking on Saturday with 19% (130). (Figure 8)

**FIGURE 8**



Injury by day of the week and sex showed males as recording more injuries than women on every day except Saturdays when males recorded 61 (15%) injuries compared to 69 (24.5%) suffered by females. (Figure 9)

**FIGURE 9**



The number of injuries sustained by males were lowest on Sunday and Monday with 40 injuries (9.9 %) respectively, whilst the highest was recorded on Friday with 76 injuries (18%). Male injuries were more evenly distributed across the weekdays than females. (Figure 9) Females were less likely to suffer injuries on a Tuesday when 22 (7.8%) injuries were sustained, whilst sustaining more injuries on a Saturday when 69 (24.5%) injuries were recorded. (Figure 9)

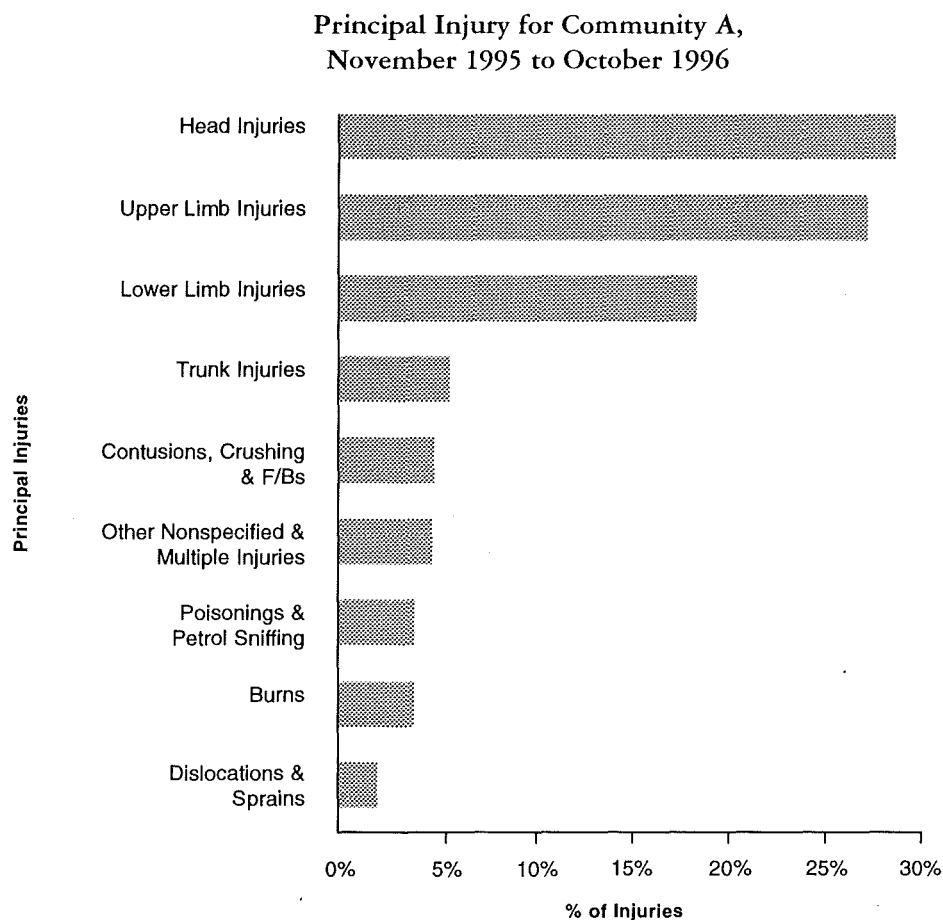
## Injuries By Principal Diagnosis

The study showed high numbers of head injuries (n= 198, 29%)

Upper limb injuries also appeared high (n=187, 27.4%)

There were 127 lower limb injuries (18.6%). (Figure 10)

**FIGURE 10**



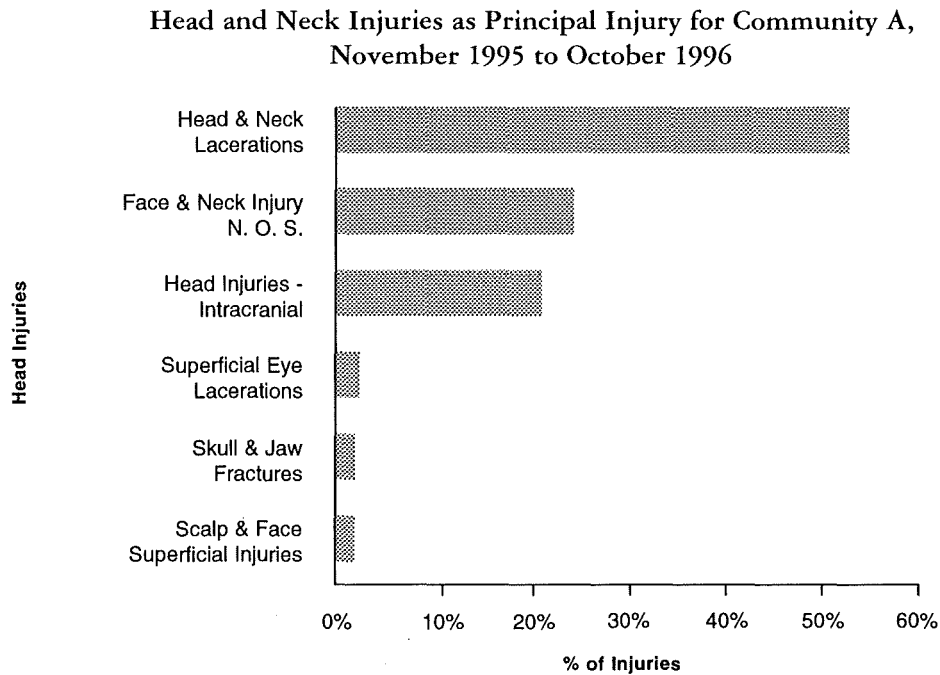
Review of the principal diagnosis revealed that of the 198 head and neck injuries recorded (Figure 10), lacerations accounted for half of them (n=101, 51%). (Figure 11)

Analysis of head and neck injuries revealed that 20.2% (40) were intracranial injuries (including "head injury N.O.S.") whilst face and neck injuries with no other specification recorded 23.7% (47). (Figure 11)

By comparison superficial head injuries were relatively low with a combined superficial scalp, face and eye lacerations recording only 3.5% (7). (Figure 11)

There were 3 skull and jaw fractures (1.5%). (Figure 11)

**FIGURE 11**

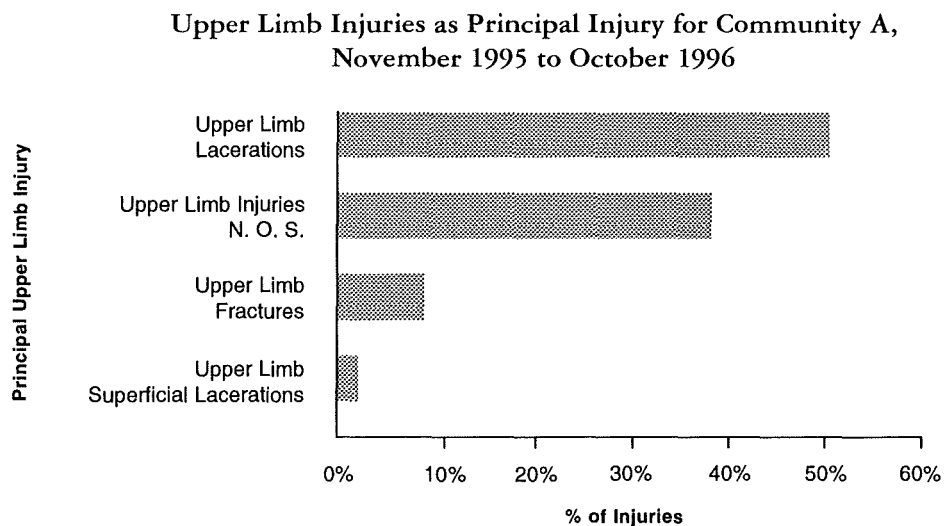


Analysis of the upper limb injuries by type showed lacerations (including one amputation) as the highest principal diagnosis (n=95, 51%). (Figure 12)

There were 8.5% (16) of fractures among the upper limb injuries, with superficial injuries again relatively low at 1.6% (3). (Figure 12)

Upper limb injuries "not otherwise specified" were recorded at 39% (73). (Figure 12)

**FIGURE 12**

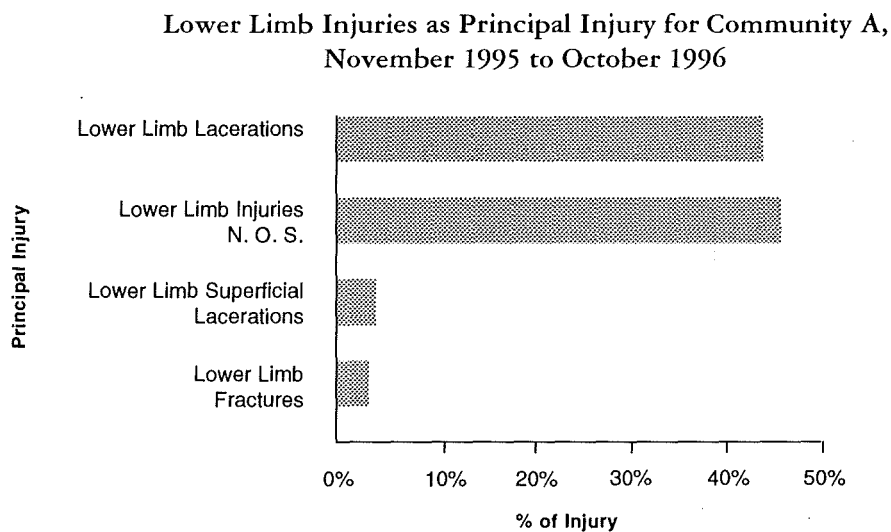


Analysis of lower limb injuries revealed a high number of injuries Not Otherwise Specified at 47.2% (60). (Figure 13)

Lacerations and amputations were again the major principal diagnosis with 45.6% (58). (Figure 13)

Lower limb fractures recorded 3.1% (4) with superficial lacerations again low at 3.9% (5). (Figure 13)

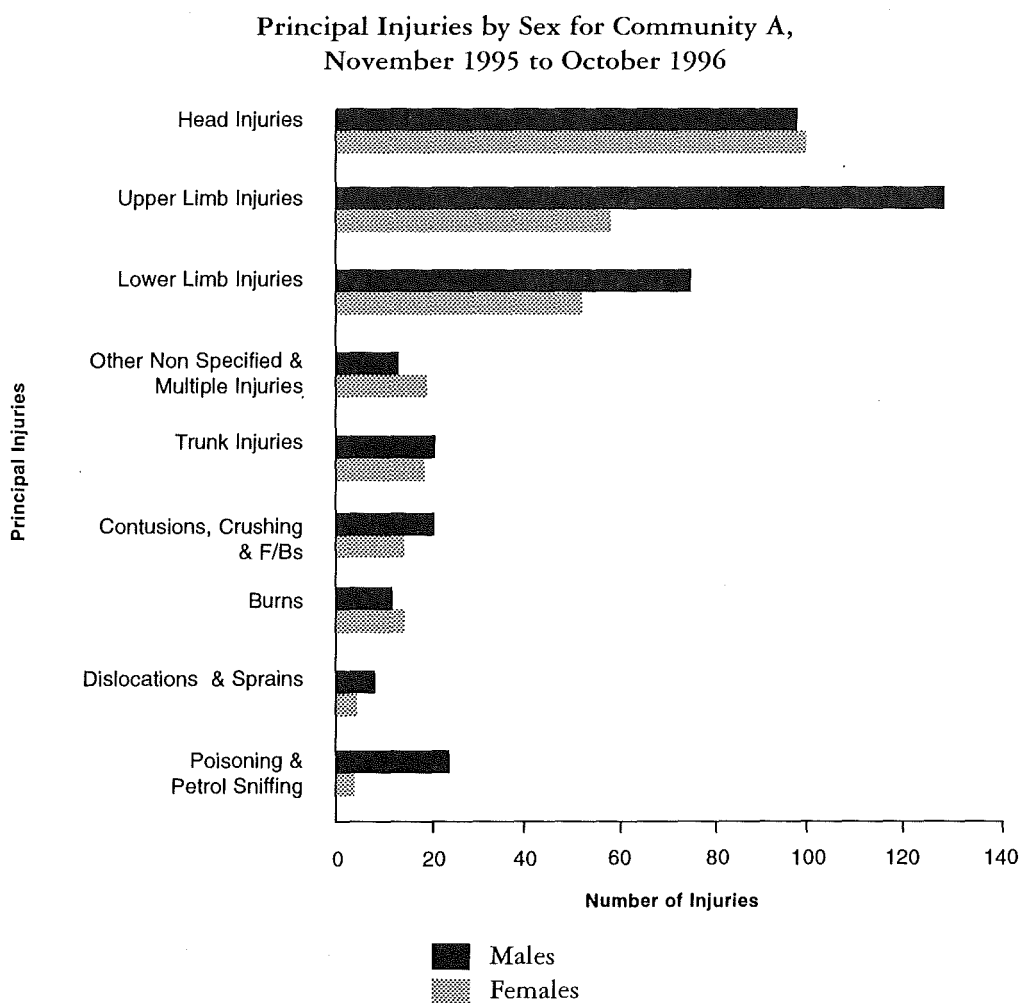
**FIGURE 13**



Analysis of principal injury by sex for all ages showed a similar number of head injuries among males and females with upper limb injuries double for males compared to females. (Figure 14)

There were a higher number of lower limb injuries among males than females. (Figure 14)

**FIGURE 14**

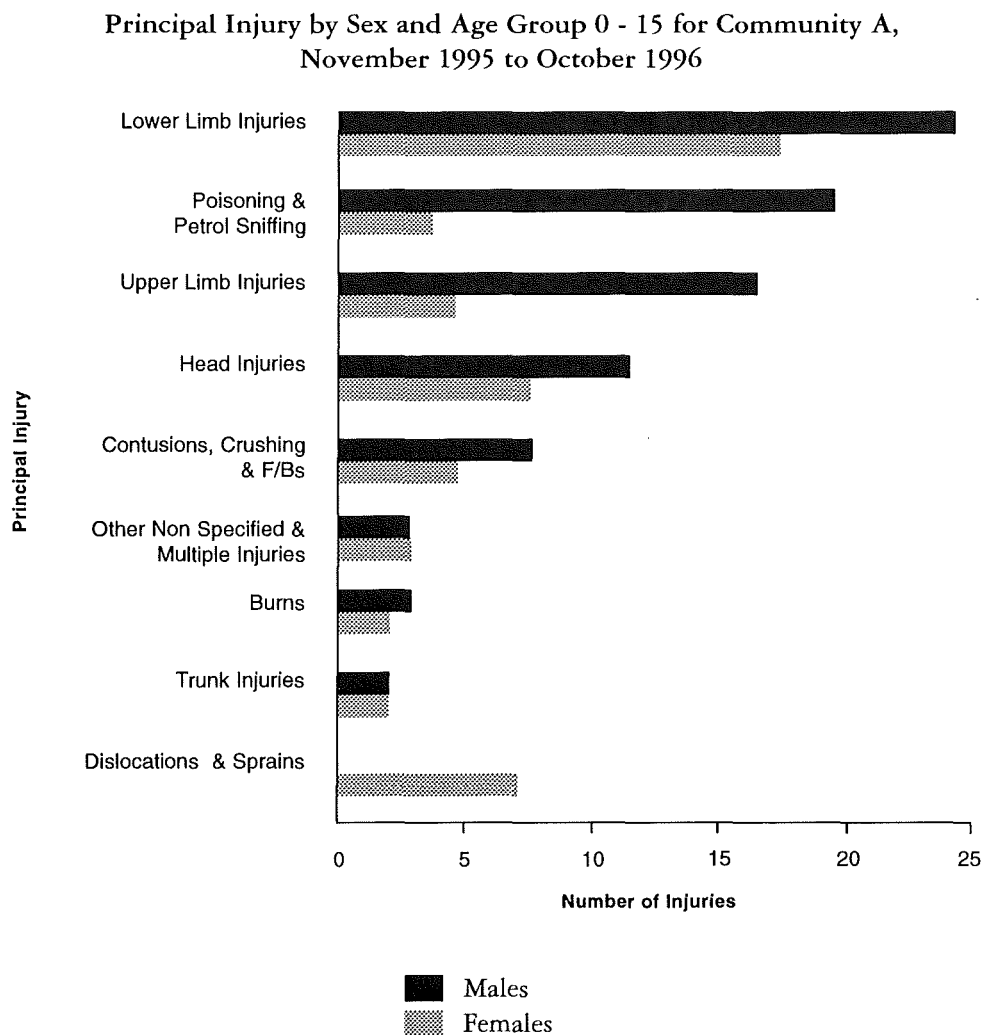


## Principal Injury for 0 - 15 Age Group (Figure 15)

Injury by principal code within the age group 0 - 15 years was dominated by lower limb injuries (Figure 15). All injuries showed a higher number of male injuries except for 7 dislocations and sprains, all incurred by girls. More than half (51%) of injuries to the lower limbs in boys and girls were open wounds to the foot including toes. (Figure 16)

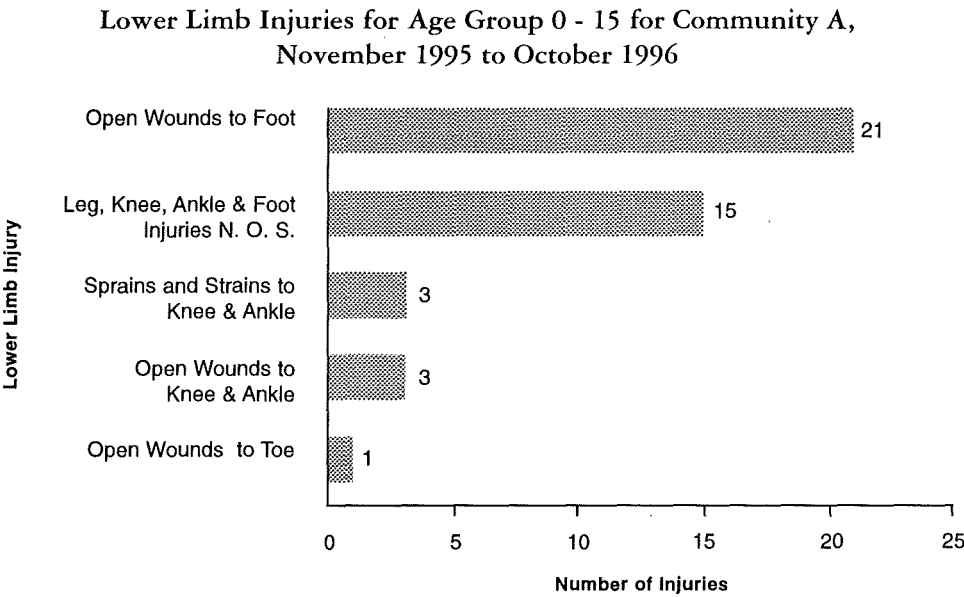
Poisonings including Petrol Sniffing were mostly in boys (n=24). (Figure 15)

**FIGURE 15**



Breakdown of lower limb injuries in children showed that nearly half were open wounds to the foot, probably caused by sharp objects on the ground to barefoot children. (Figure 16)

**FIGURE 16**



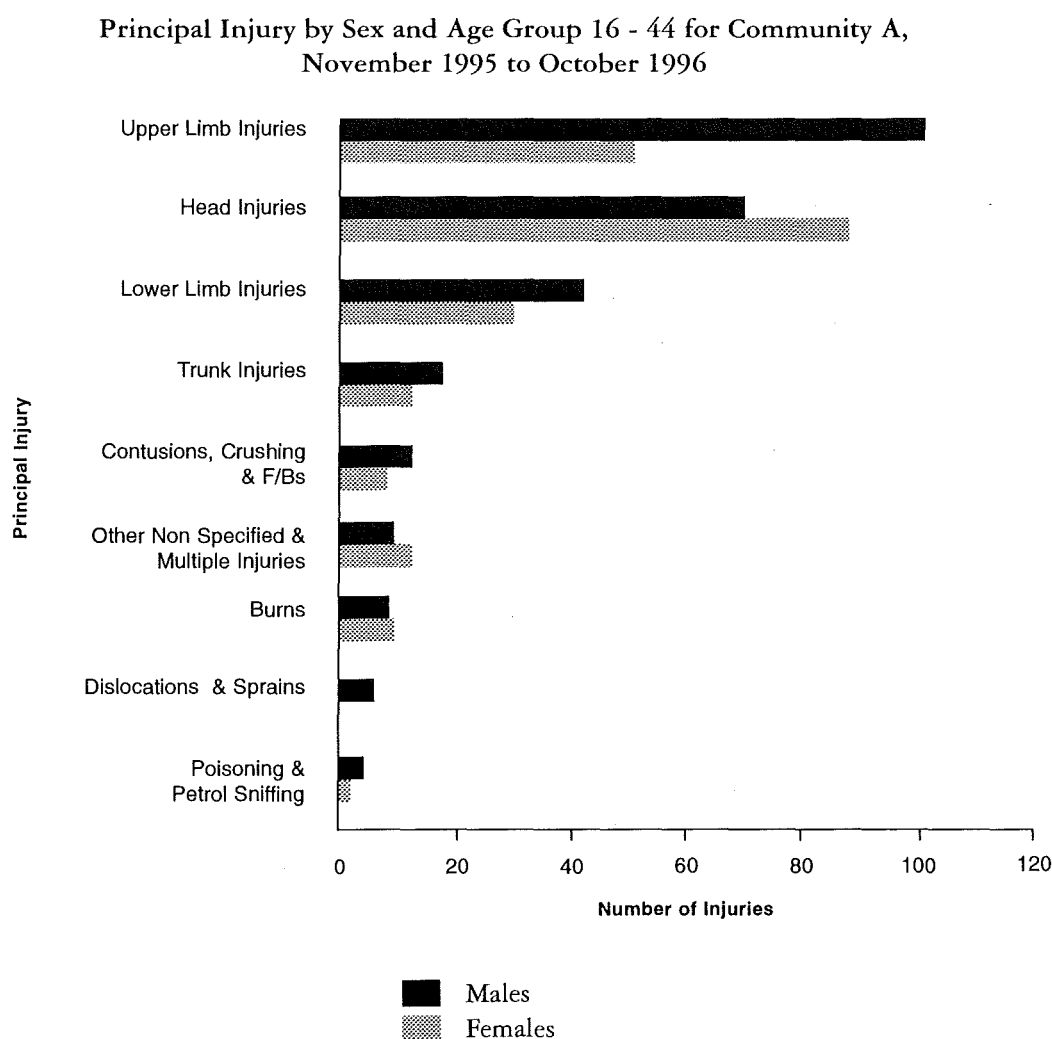


## Principal Injury for Age Group 16 - 44 years (Figure 17)

Injuries in this age group are dominated by head and upper limb injuries. There is a higher number of males involved in all types of injury except head injury, where females had nearly 30% more injuries than males (Figure 17). These types of injury are due mainly to assault (see E-Codes, Figure 20), where male upper limb injuries are mainly of the "tooth-knuckle" type and female injuries are mainly defensive. Head injuries are mainly due to assault by another person and alcohol was associated with most of these (see next section).

For both sexes, a total of 17 (3.5%) injuries were recorded as contusions to the face and eye as well as 2 burns to the face and eye.

**FIGURE 17**



## Upper Limb Injuries in the 16 - 44 Year Age-Group (Figure 18)

For both sexes combined, open wounds to the hand (including tooth-knuckle injuries) accounted for 58 (35.2%) of the total upper limb injuries.

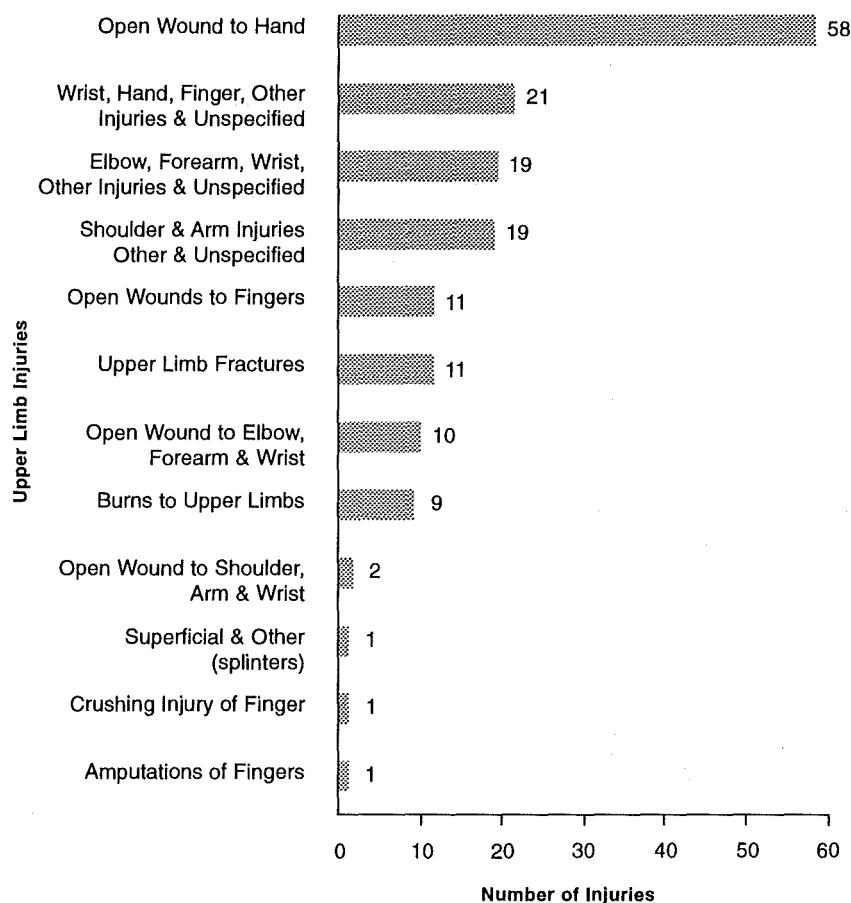
There were 11 upper limb fractures (6.7%) with one finger amputation (0.6%).

Nine (5.5%) burns were recorded.

Fifty-eight (35.2%) other and unspecified injuries were sustained to the shoulder, arm wrist, hand and fingers within this group. (Figure 18)

**FIGURE 18**

Upper Limb Injuries for Age Group 16 - 44 for Community A,  
November 1995 to October 1996



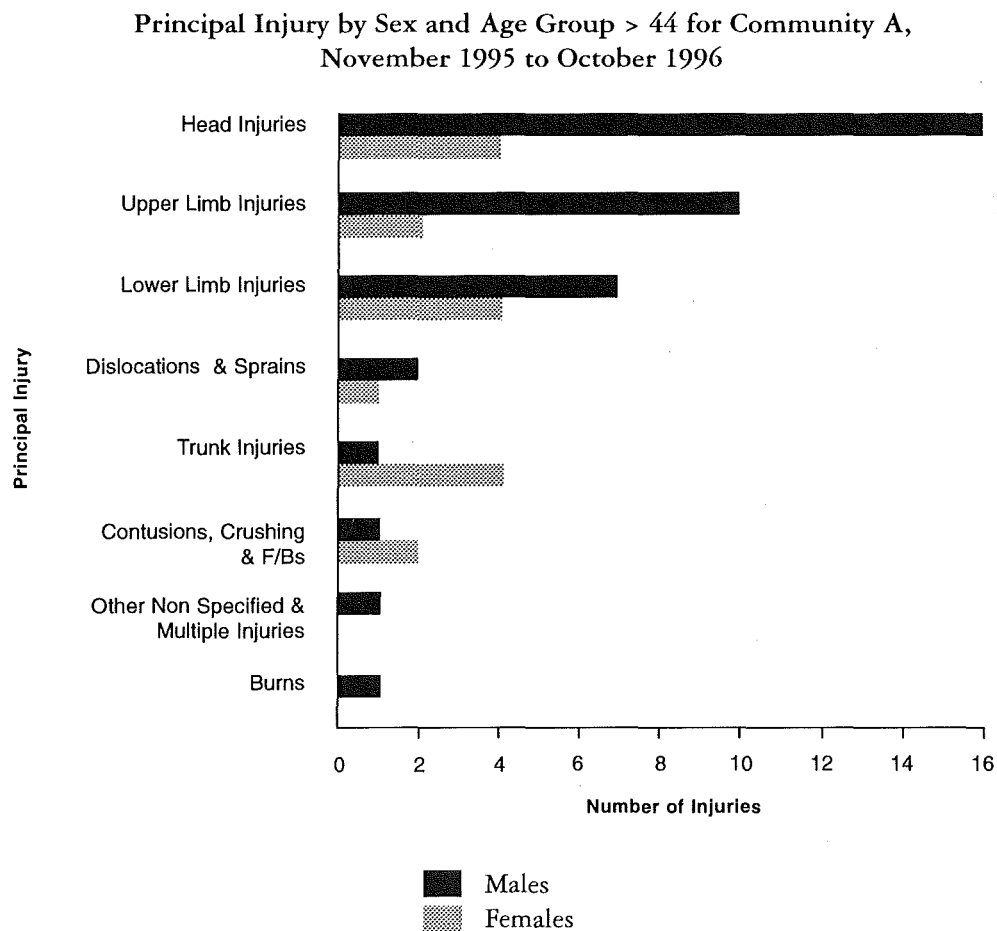
## Principal Injury for Over 44 Years Age Group (Figure 19)

Except for injuries to the trunk, males dominate every category in this age group, with head injuries accounting for the majority. However, total numbers are low.

Thirteen (23.2%) injuries were open wounds to the head, with 6 (10.7%) open wounds to the hand and fingers being recorded.

The only other significant injury numbers recorded within the over 44 year age group were knee, ankle and foot injuries recorded at 11 (23.5%), as well as trunk injuries N.O.S. at 5 (8.9%). (Figure19)

**FIGURE 19**



## External Cause Of Injury (all ages and both sexes)

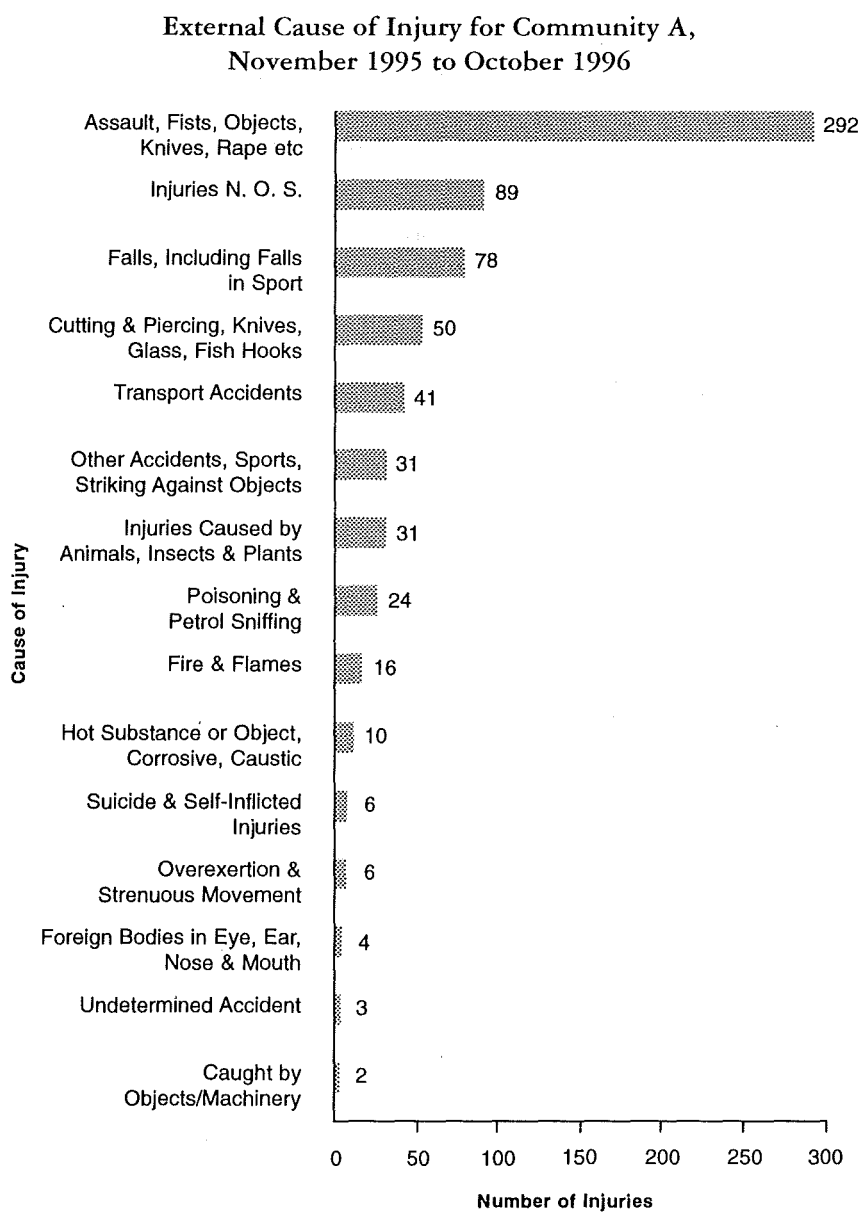
Assault (with fists, objects, knives, rape etc.), including Domestic Violence, was the principal external cause of overall injury (n=292, 42.8% of all injuries).

Accidental Cutting and Piercing (with knives, glass and fishhooks etc.) accounted for 7.3% of all injuries (n=50).

There were 78 falls (11.4%) and 41 (6.0%) Transport Accidents.

There were 6 Self Inflicted injuries (0.9%), whilst injuries caused by Animals, Insects and Plants were surprisingly high at 31 (4.5%) whilst participating in fishing and hunting activities. (Figure 20)

**FIGURE 20**

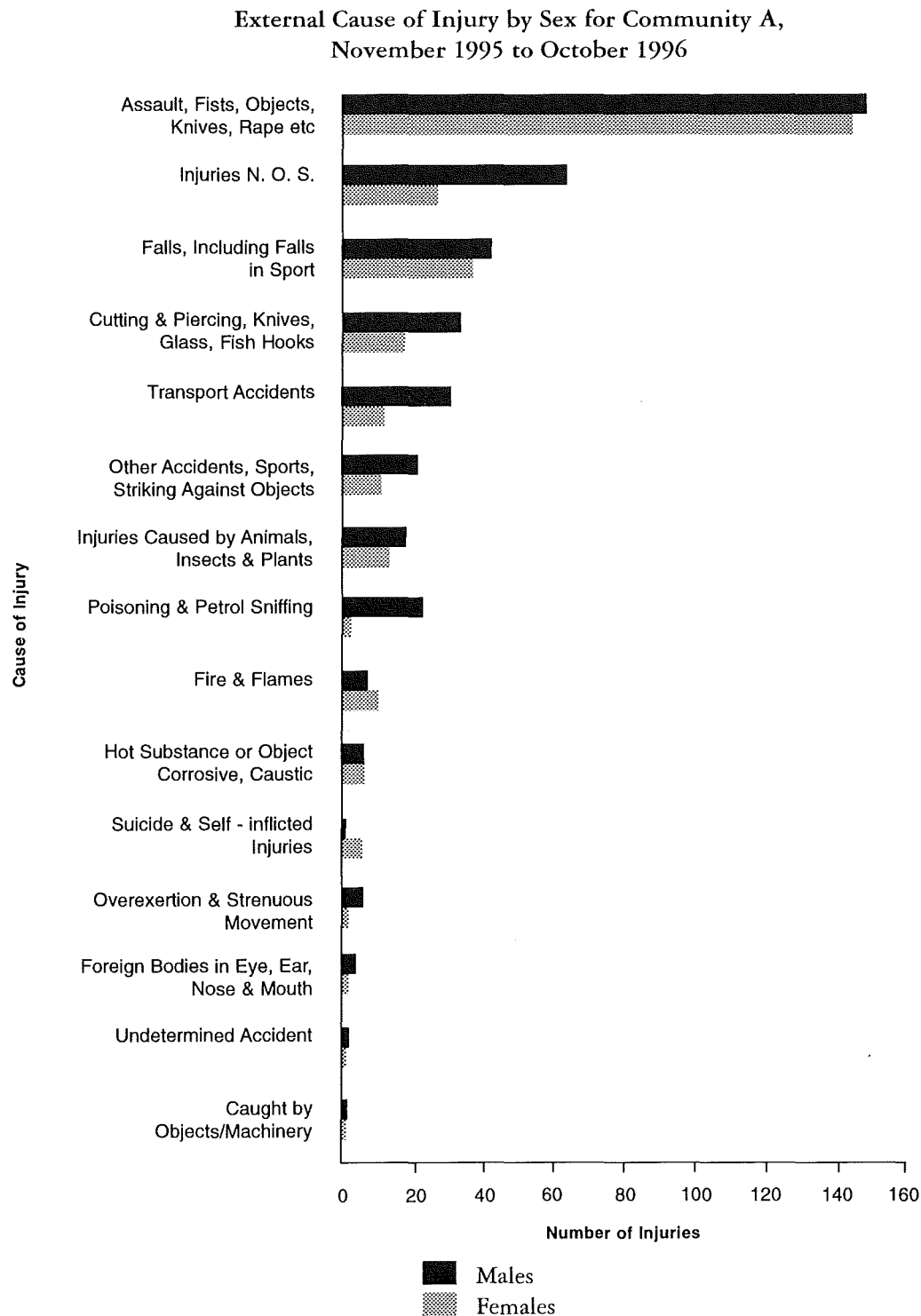


## External Cause of Injury by Sex

External cause of injury is dominated by Assault, of which there were almost equal numbers for males and females. Self Inflicted injuries were higher among females (n=5, 1.8%) than males (n=1, 0.2%).

Sport-associated injuries were similar for males and females and Transport accidents were higher among males. (Figure 21).

**FIGURE 21**



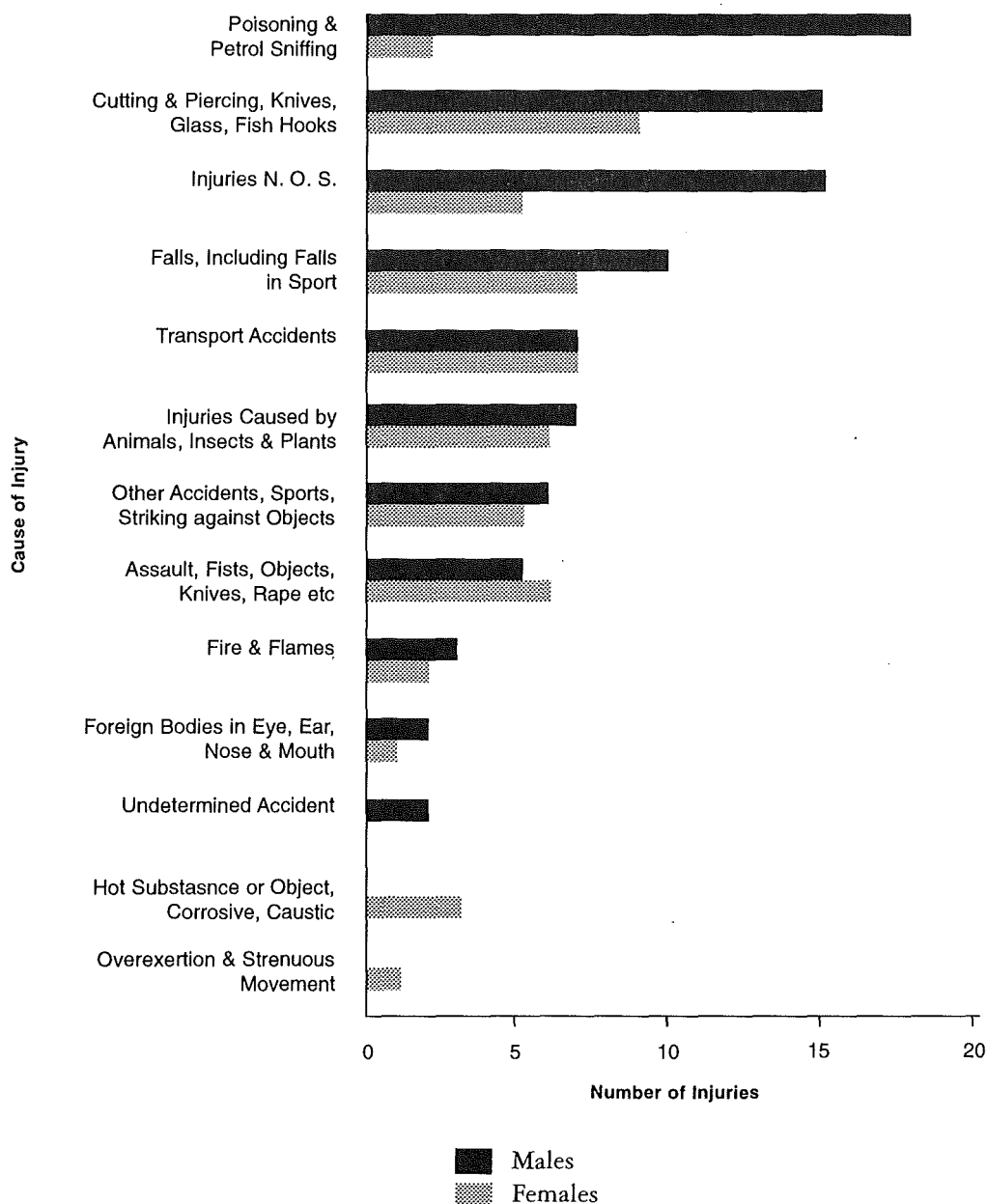
## External Cause of Injury Ages 0 - 15 years (Figure 22)

Injuries in this age group are dominated by Poisoning and Petrol Sniffing, Cutting and Piercing injuries and Falls in sport. There are more male injuries sustained in every area except Transport Accidents, Assault, Burns by Hot or Corrosive Substances, and Overexertion and Strenuous Movement.

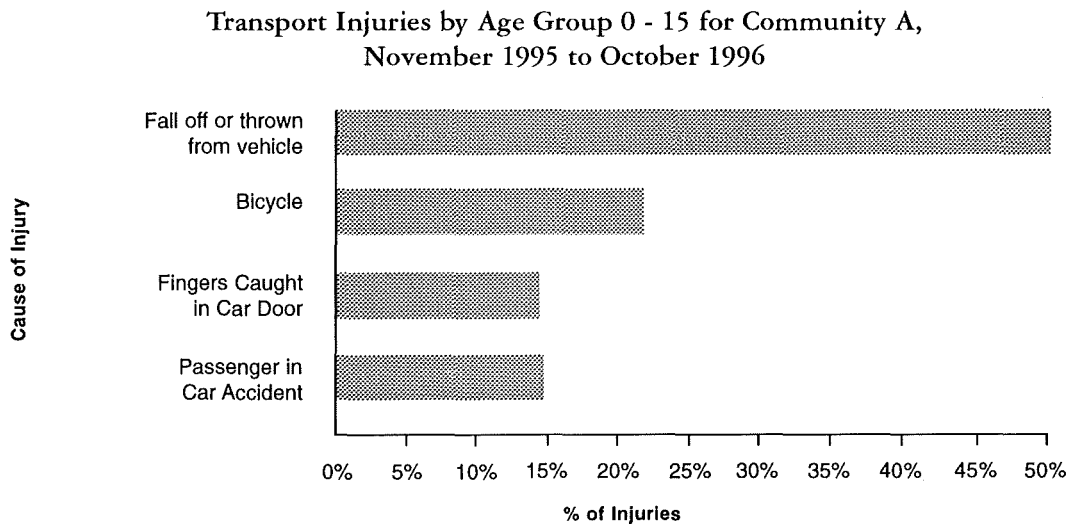
Transport accidents appear to be quite high, and evenly distributed between boys and girls. Half of these accidents involve falling off or being thrown from vehicles, reflecting the common practice of large groups of people travelling in the open backs of vehicles. (Figure 23)

**FIGURE 22**

External Cause of Injury by Sex & Age Group 0 - 15 for Community A,  
November 1995 to October 1996



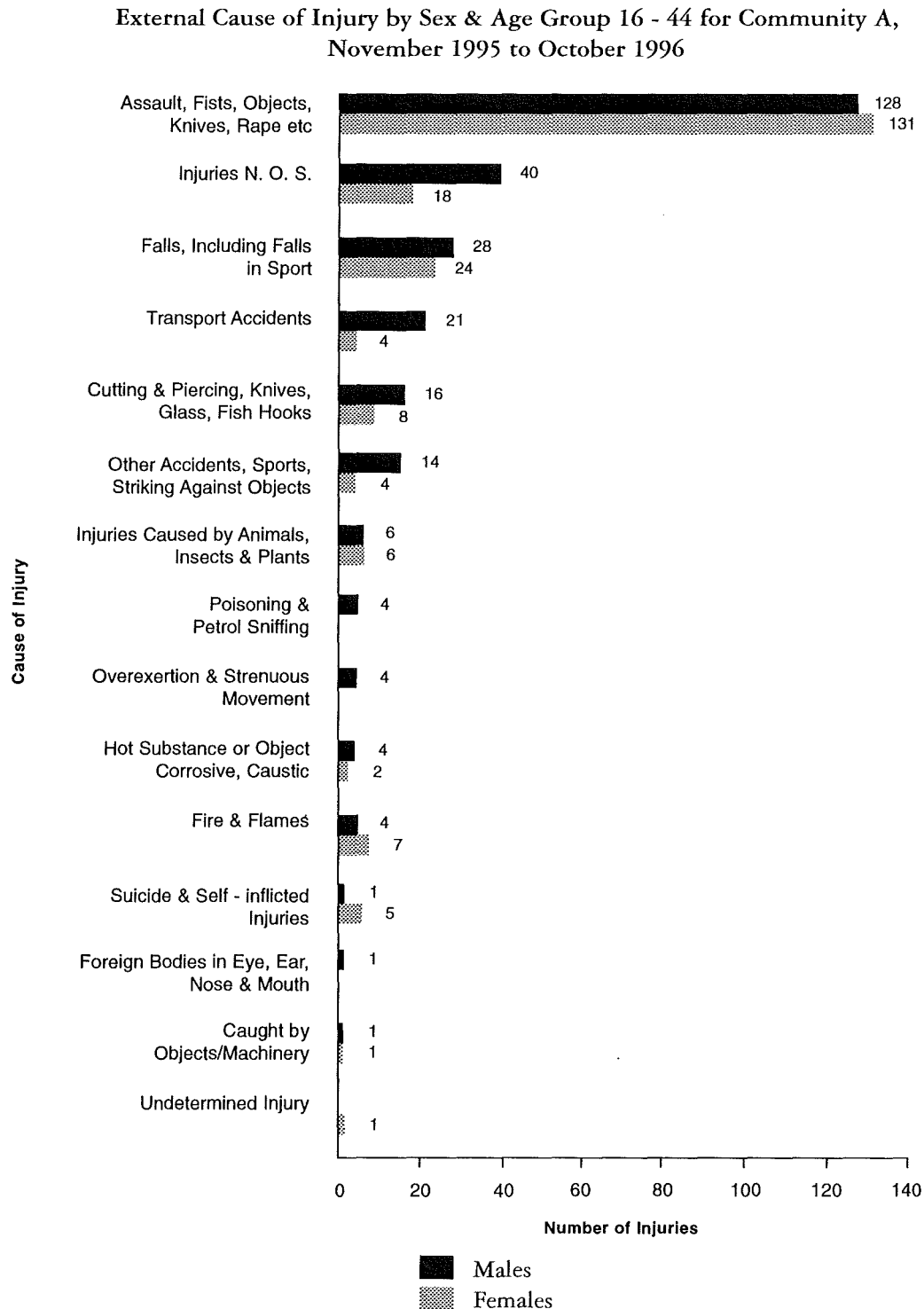
**FIGURE 23**



## External Cause of Injury Ages 16 - 44 years (Figure 24)

Injury in this group is dominated by Assault and males and females were equally affected. Otherwise, there is the usual higher number of male injuries among other causes except for Suicide and injuries due to Fire and Flames, where numbers are small (Figure 24). Analysis which takes alcohol into account (see next section) makes this clearer.

**FIGURE 24**



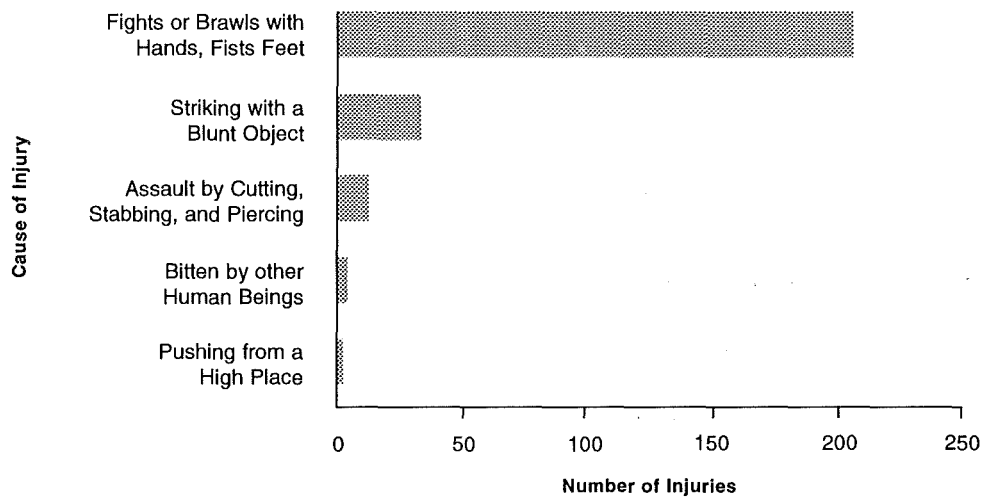


Analysis of the injuries caused by Assault (with fists, knives and objects etc.) in the age group 16 - 44 showed the vast majority of these assaults were without weapons (i.e. with hands, fists and feet). (Figure 25)

Human Bites accounted for 3 (1.2%) injuries with 1 (0.4%) injury caused by being pushed from a high place. (Figure 25)

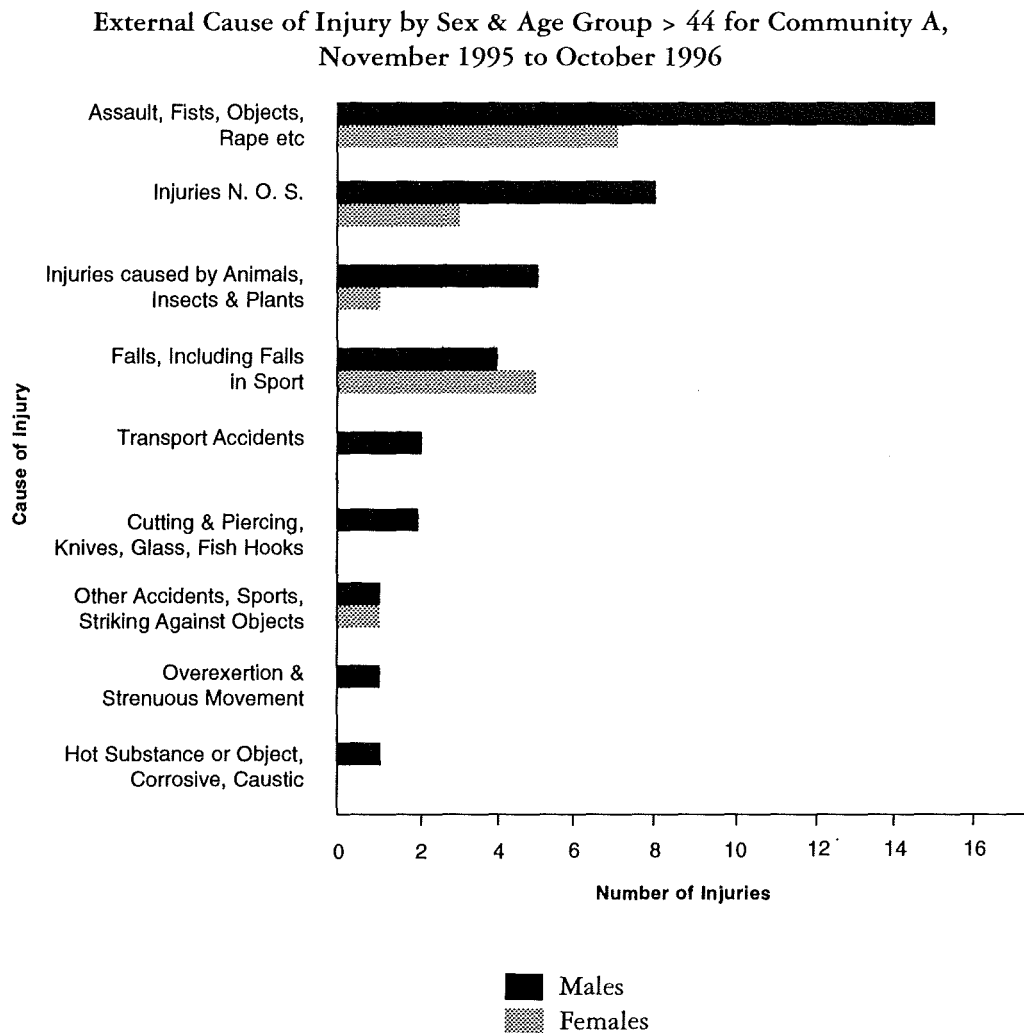
**FIGURE 25**

Assault (Fists, Objects, Knife Injuries etc.) Age Group 16 - 44, Community A,  
November 1995 to October 1996



## External Cause of Injury in Over 44 Years Age Group (Figure 26)

**FIGURE 26**



Injuries in this age group are still dominated by Assault, but with more males sustaining injuries (about double), reflecting high levels of violence in the community. There are more males involved in all causes of injuries, except for falls, where females are slightly higher. (Figure 26)

## Alcohol as a Contributing Factor to Injury - Community A, November 1995 to October 1996

The contribution of alcohol to morbidity and mortality in indigenous communities was noted by Alexander (1990:32) in a review for the Royal Commission into Aboriginal Deaths in Custody:

*Alcohol has been implicated as a direct cause of approximately 10 per cent of deaths among Aboriginal people. A further proportion of Aboriginal deaths is considered to be partly alcohol related. The proportion of deaths considered to be alcohol related among Aboriginal people is three to five times higher than among the general Australian Population. Among middle-aged Aboriginal males, the proportion of deaths related to alcohol exceeds 30 per cent. The limited data available suggests that approximately one-quarter of admissions of Aboriginal people to hospital are alcohol related. Excessive use of alcohol by Aborigines has also been associated with psychological disturbances including psychoses and self-harmful tendencies.*

The Community A study examined alcohol consumption in the community and the association of this consumption with injuries.

The high percentage (93%) of regular drinkers over the age of 15 in this community differs from other studies (Hunter Hall & Spargo 1991; National Drug Strategy 1996), which found that the proportion of drinkers in the Aboriginal population is substantially less than in the wider society. In Community A, of the 442 people over the age of 15, 411 (93%) were regular drinkers. (Table 5)

**TABLE 5**

### Population - Regular Alcohol Consumers, Community A

Total population, Community A	649
Total population over the age of 15, Community A	442
Total number of regular drinkers over the age of 15, Community A	411
Percentage of the population over the age of 15 as regular drinkers Community A	93%

This estimate applies only to the legal alcohol sales within the community and no account has been taken of the illegal sales of alcohol which have been identified as an issue in case studies within this report. In addition, no account has been taken of the substantial bonuses paid to the communities by breweries in recognition of sales. These bonuses are paid in alcohol which are not recorded here.

The community has consumed an average annual legal alcohol intake of 208,944 litres (557,184 cans) of full strength beer over the past 2 years. This represents an average annual beer intake of 508.5 litres (1356.0 cans) for each regular drinker over the age of 15 (Table 6), assuming only locals drink regularly at the canteen. These figures were obtained from the local Aboriginal Community Council who identified the purchases of legal alcohol from the two identified breweries over the previous two years. These were the only legal purchases of alcohol resold in the community.

**TABLE 6****Alcohol Consumption Community A**

	<b>Litres</b>	<b>Cans</b>
Total legal average annual beer consumption Community A	208,944	557,184
Number of regular drinkers over the age of 15 (n=411)		
Average individual annual consumption	508.37	1,356
Average individual weekly consumption of legal beer	9.77	26

No 'legal' alcohol is available on Sundays from the canteen and this study has identified that canteen attendances on Monday and Tuesday are relatively low. The bulk of this alcohol is consumed on the remaining 4 nights of the week which suggests an average individual alcohol intake for these days which exceeds NHMRC recommendations. This information was obtained from the canteen management and personal observations of canteen attendances over a six-week period.

Patterns of injury show a relationship between paydays for CDEP and Social Security and canteen opening times. That is, high injury rates on Payday (Thursday and Friday) and the next day off (Saturdays) with a fall-off on Sundays when the canteen is closed. (Table 7, Figure 33).

Table 7 identifies the total income derived by the community over a two week period. This information was obtained from the Department of Social Security (Cairns Branch) and the local Aboriginal Community Council who identified the weekly CDEP payments. The only known indigenous income not recorded in this census was the income of the Aboriginal health workers at the clinic, one indigenous worker at the school and one other indigenous person employed by the church. It is believed that these indigenous people earn an annual income greater than annual CDEP income. It should also be noted that an amount of \$6,000 identified in Week 1 of Table 7 refers to CDEP payments to non indigenous people. Also, this is the amount of CDEP payment paid directly into bank accounts by electronic transfer. All other payments were made in cash.

Considerable income is alleged to be derived from "sly-groggers", both indigenous and non-indigenous. No account of this alleged income is included in this report.

**TABLE 7****Community A Weekly Income**

Week 1	Family allowance	Paid Thursday	\$19,047.65	
	C.D.E.P	Paid Friday	\$52,000.00 - \$6000	\$46,000.00
<b>Total</b>				<b>\$65,047.65</b>
Week 2	Pensions	Paid Thursday	\$32,608.00	
	C.D.E.P.	Paid Friday	\$24,000.00	
				<b>\$56,608.47</b>
	Miscellaneous Pension Payments (anytime)			<b>\$12,424.80</b>
	<b>Total Fortnightly Income Community A</b>			<b>\$134,080.92</b>

## Frequency of Injury by Alcohol Status

Alcohol-related injuries affected 172 individuals with 346 injury events (an average of 2.0 injuries per patient for the 12 months).

Injuries not associated with any alcohol were recorded for 218 patients during the period under study with 337 injury episodes (an average consultation rate of 1.6 visits per patient).

Most people who had any injury during the study period were injured on only one occasion. A substantial minority (n=69) were injured on more than one occasion during this period. For those receiving multiple injuries where alcohol was involved there were 17 patients with more than two injuries (with one patient sustaining 8 injuries). This is compared to only 8 patients with more than 2 injuries where there was no associated alcohol intake (highest injury count was 4).

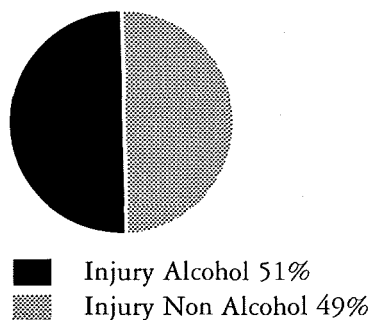
## Percentage and Numbers of Injury by Alcohol and Sex

The numbers of alcohol related injuries are slightly higher at 346 (50.7%) injuries, against 337 (49.3%) injuries without alcohol association. (Figure 27)

Analysis of injury by sex and alcohol association revealed that females had fewer injuries not associated with alcohol (121 (35%) compared to 216 in males (65%)), (Figure 28A). However, when alcohol was a contributing factor to injuries, females had nearly the same number of injuries as males (n=161, 47% versus 185, 53% for males) (Table 8, Figure 28B). Fifty seven percent (n=161) of all injuries incurred by females have a contribution of alcohol.

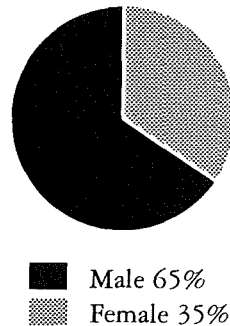
**FIGURE 27**

**Injury by Alcohol Status for Community A,  
November 1995 to October 1996**



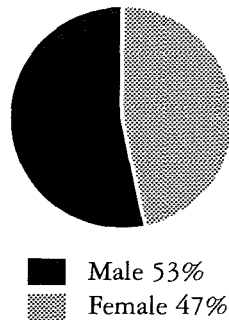
**FIGURE 28A**

Injuries Not Associated With Alcohol by Sex for Community A,  
November 1995 to October 1996



**FIGURE 28B**

Alcohol Associated Injuries by Sex for Community A,  
November 1995 to October 1996



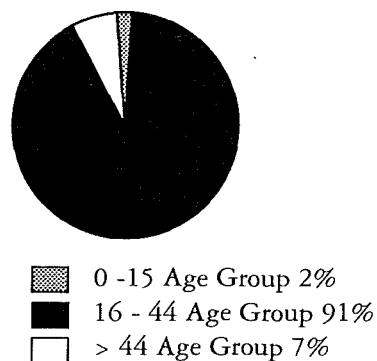
Alcohol-related injury disproportionately affects the 16 - 44 age group (and women in that group), but other groups are also affected. The 0 - 15 age group showed quite low numbers of alcohol related injuries at (n=7, 4.8%). In the over 44 year age group there were relatively low numbers of injuries (n=25) however, nearly half of these are alcohol-related. (Table 8)

Overall, there were 346 injuries associated with alcohol and the vast majority of these (91%) occurred in the 16 - 44 year age group. (Figure 29)

Alcohol is implicated in 65% of injuries in the 16 - 44 year age group, where overall injury rates are already extremely high. (Figure 30)

**FIGURE 29**

Alcohol Associated Injury By Age Groups, Community A,  
November 1995 to October 1996



## Age-Specific Injury Rates by Alcohol Status

For injury not associated with alcohol, the distribution is relatively even across age groups with a decline in the over 44 year-olds. This preserves the sex ratio of about 2:1 males to females which characterises national figures. The picture changes dramatically for alcohol-related injury where rates in the 16 - 44 age group are excessive and the usual m:f ratio is lost, with females suffering injuries at rates similar to males. (Figures 30A and 30B, and Figure 31)

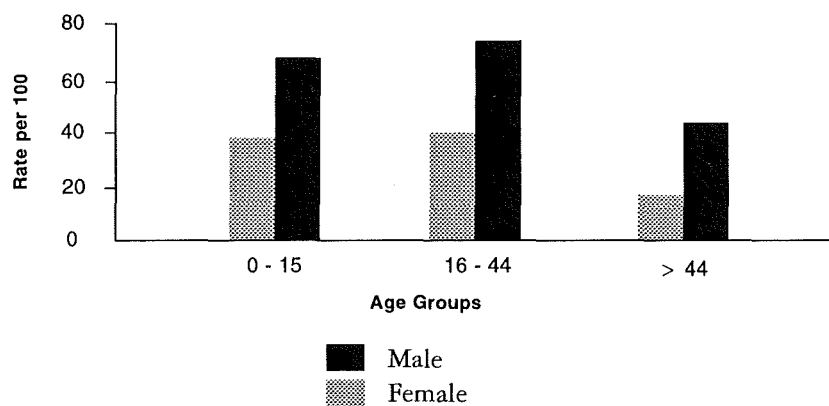
**TABLE 8**

**Injury Numbers by Alcohol Status, Sex and Age Group, Community A,  
November 1995 to October 1996**

Age Group	NON ALCOHOL				ALCOHOL RELATED				Total Nos. of Injuries
	Females	Rate	Males	Rate	Females	Rate	Males	Rate	
0 - 15	49	39.2	88	68.7	5	4	2	1.6	144
16 - 44	63	42.2	106	74.1	148	99.3	166	116	483
> 44	9	16.4	22	44.9	8	14.5	17	34.7	56
Total	121		216		161		185		683

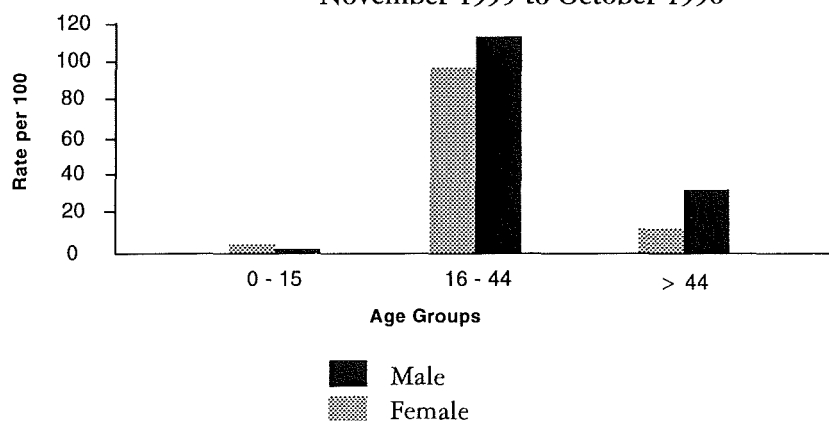
**FIGURE 30A**

**Age-Specific Rates for Injury Without Alcohol, Sex and Age Group for Community A,  
November 1995 to October 1996**



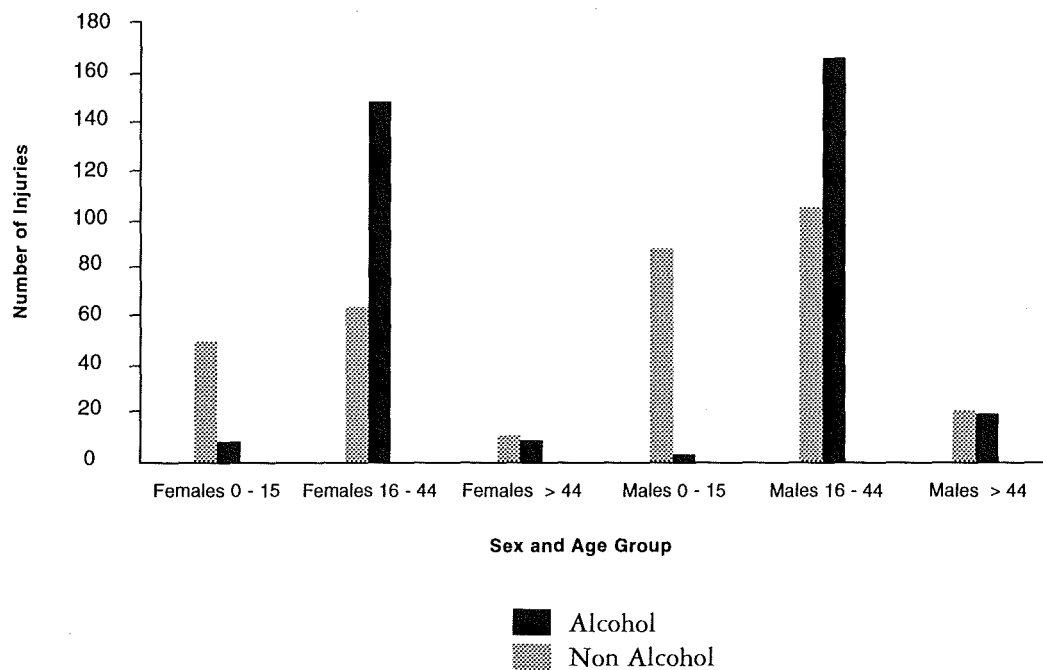
**FIGURE 30B**

**Age-Specific Rates for Alcohol Associated Injury by Sex and Age Group for Community A,  
November 1995 to October 1996**



**FIGURE 31**

Injury Numbers by Alcohol Status, Sex and Age Group for Community A,  
November 1995 to October 1996

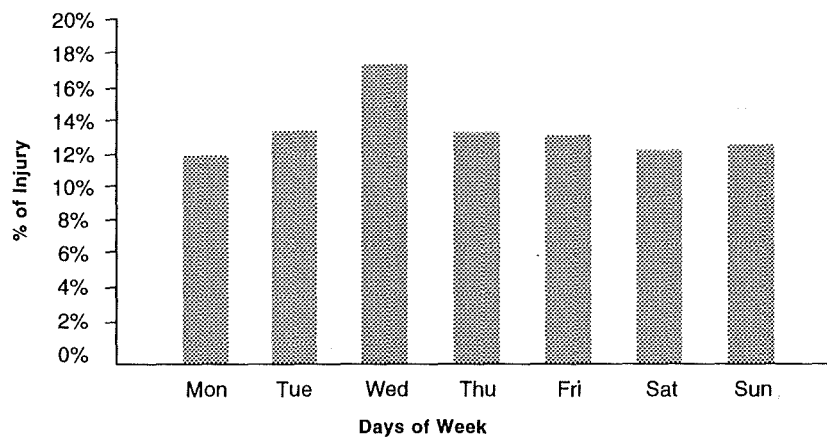


## Injury by Day of Week and Alcohol Status

Presentations for injury not associated with alcohol were relatively even in distribution throughout the week with a slight excess on Wednesdays when the doctor visited. (Figure 32)

**FIGURE 32**

Injury Without Alcohol by Day of Week for Community A,  
November 1995 to October 1996

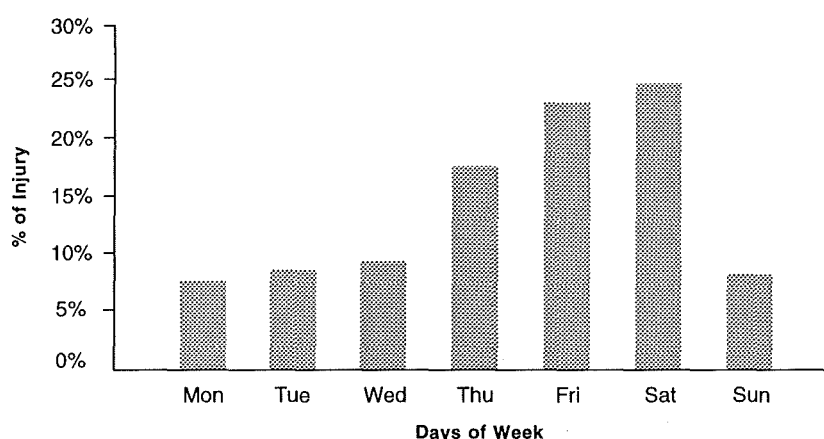




By comparison, the daily pattern of alcohol-associated injuries is influenced by canteen opening hours and “days of” and “days following” CDEP and Social Security payments. The canteen is closed on Sundays and has low attendance on Mondays and Tuesdays. This is reflected in the numbers of alcohol-associated injuries on those days, with Sunday recording 28 (8%) injuries, and Monday and Tuesday recording 27 (7.8%) and 31 (9%) respectively. (Table 6, Figure 33)

**FIGURE 33**

**Injury Numbers by Alcohol Status, Sex and Age Group for Community A,  
November 1995 to October 1996**

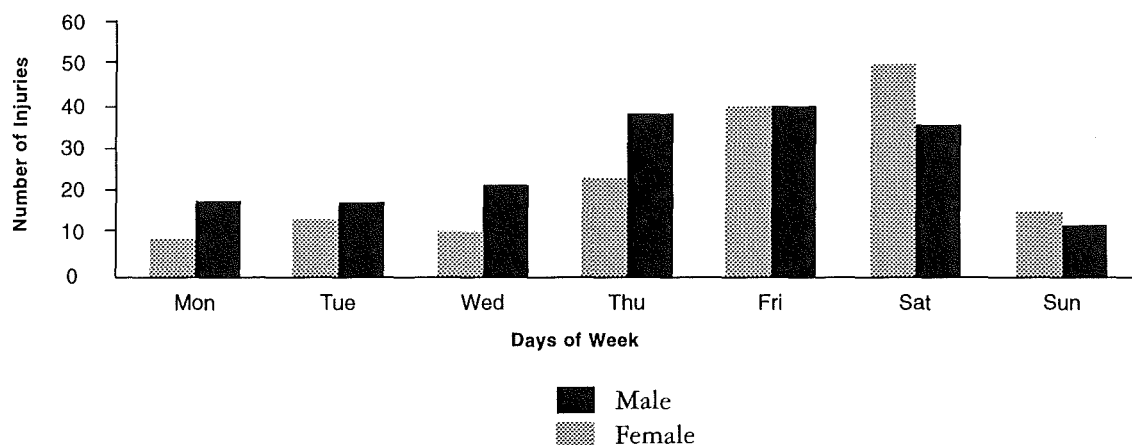


Alcohol-associated injury by day of the week and sex showed females having substantially less injuries than males on Monday, Tuesday, Wednesday and Thursday. Fridays were shared evenly by the sexes with females recording 40 (24.8%) and males 40 (21.6%). However, on Saturdays females suffered 50 (31.1%) injuries and males 36 (19.5%). On Sundays, males and females had relatively fewer injuries (13 and 15 events respectively). (Figure 34)

By comparison, males recorded a higher incidence of injuries on Monday and Tuesday, both at 18 (9.7%), Wednesday at 22 (11.9%), Thursday at 38 (20.5%), and Saturday at 36 (19.5%). (Figure 34)

**FIGURE 34**

**Alcohol-Related Injury by Day of Week & Sex for Community A,  
November 1995 to October 1996**

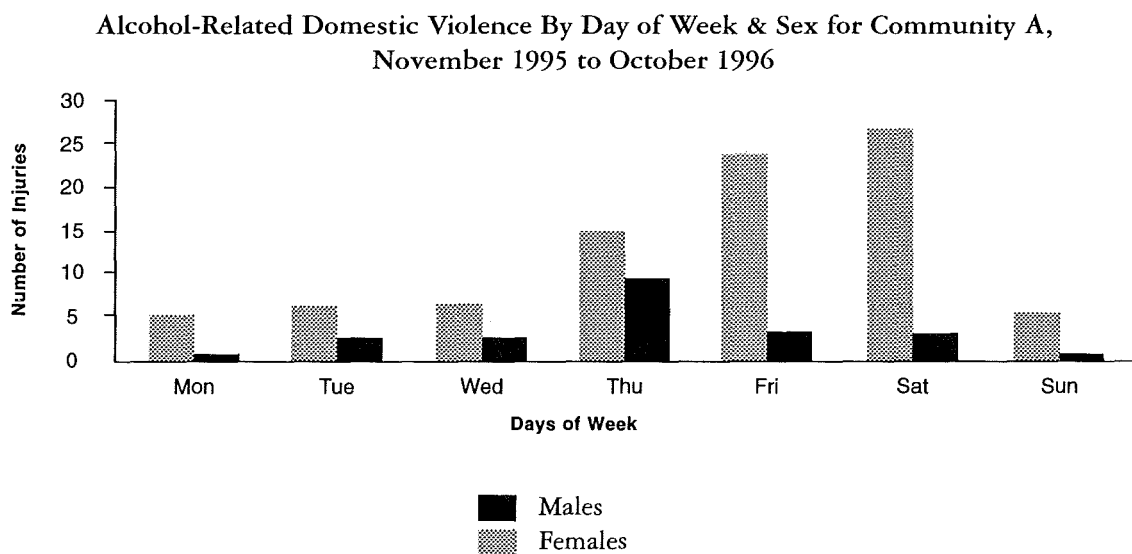


Assault (with fists, objects, knives and rape etc.) accounted for 257 events (74%) of injury associated with alcohol. Of these assaults, 116 events (45%) were described as “domestic violence” where the assault is by a partner or family member.

Injuries resulting from alcohol-associated Domestic Violence incurred by females by day of the week shows a similar pattern to other alcohol-associated injuries, with the highest number 27 (30%) on Saturday and the lowest on Monday at 5 (5.6%). (Figure 35)

By contrast, males suffered 38.5% (10) of Domestic Violence injuries on a Thursday with the remainder occurring on the other 6 days with the lowest on Sunday and Monday. (Figure 35)

**FIGURE 35**

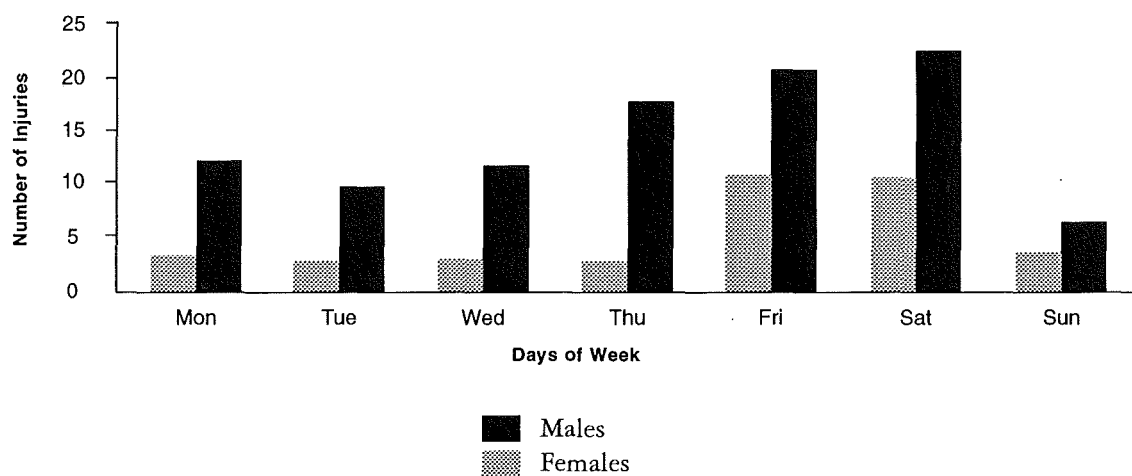


Alcohol-associated Assault suffered by males followed a similar pattern to Domestic Violence suffered by females with the highest number of male injuries recorded on Saturday at 23, (22.3%) and the lowest on Sunday at 7 (8.7%) with Monday having 12 (11.7%) and Tuesday also low at 10 (9.7%). (Figure 36)

In contrast, females recorded 22 (57.9%) Assault injuries on two nights with Friday at 11 (29%) and Saturday at 11 (29%) and the remaining 16 (42.1%) being incurred over the other five nights of the week. (Figure 36)

**FIGURE 36**

Alcohol-Related Assault Injuries By Day of Week & Sex for Community A,  
November 1995 to October 1996

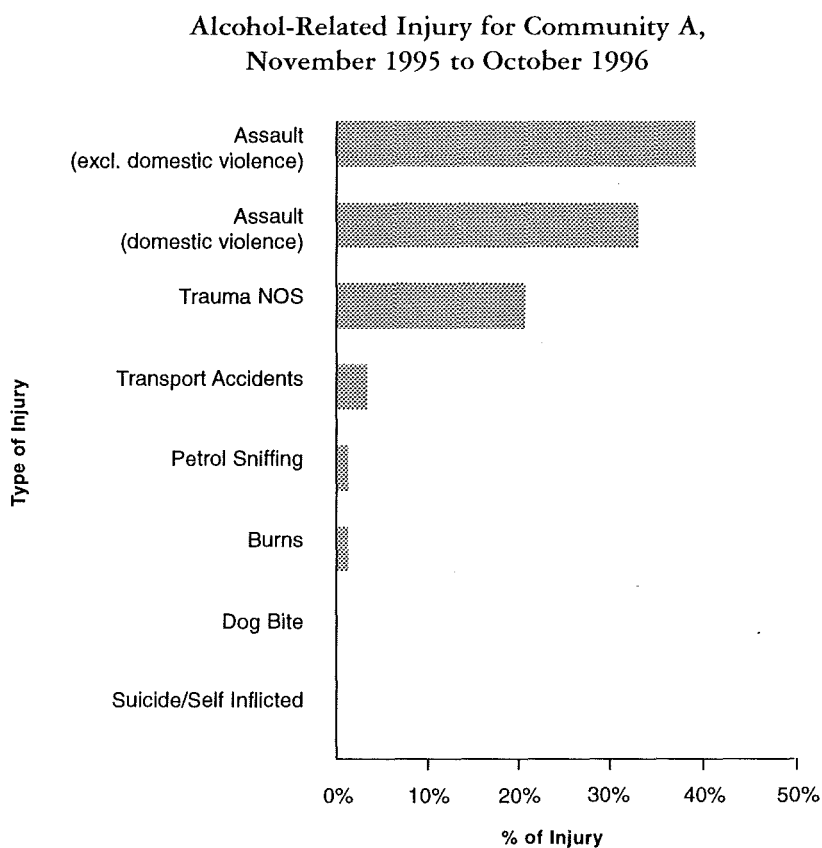


## Alcohol-Related Injury

Person to person conflict was the Principal Cause of injuries accounting for 74% (257) of the total alcohol-associated injuries. This includes both Domestic Violence (n=116, 45%) and Assault (n=141, 55%). (Figure 37)

Injuries Not Otherwise Specified (NOS) accounted for 27 (7.8%) with Transport Accidents (n=12, 3%) and Burns (n=4, 1%) quite low. (Figure 37)

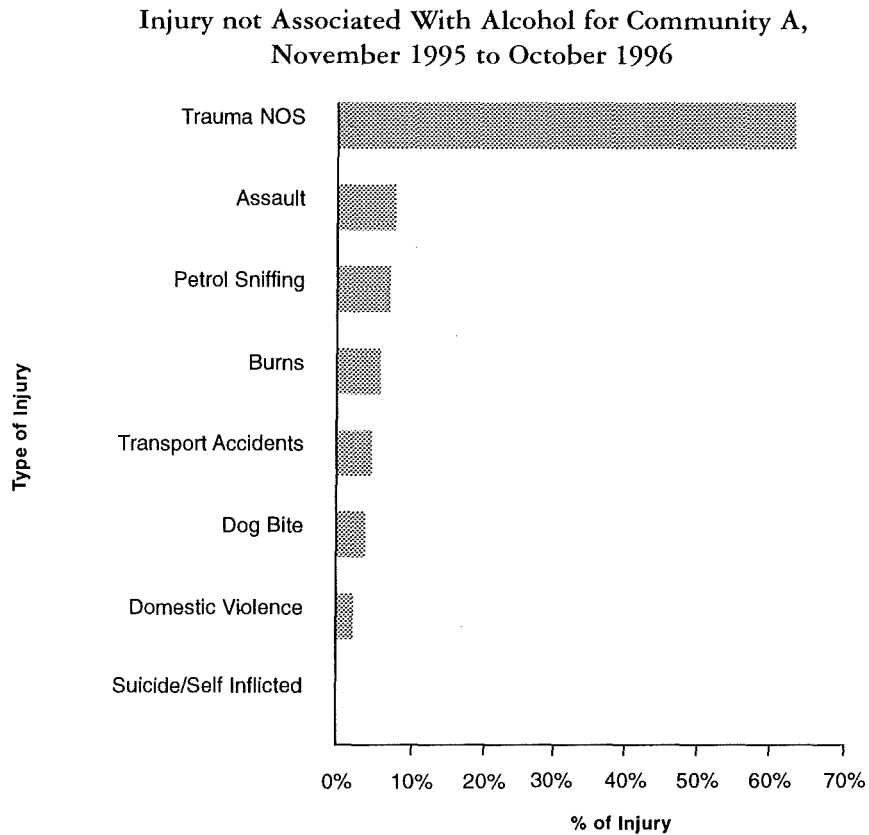
**FIGURE 37**



By contrast, injuries without a contribution of alcohol recorded a much lower number of Assault at 25 (7.4%) and Domestic Violence at 10 (2.9%) with a proportionately high number of Transport Accidents at 20 (6%) and a high number of Petrol Sniffing injuries (n=23, 6.8%). (Figure 38)

Dog bites were also noticeable at 17 (5%) of non alcohol-associated injuries with one self inflicted injury being recorded. (Figure 38)

**FIGURE 38**



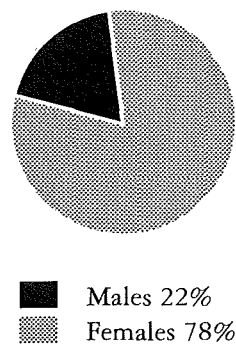
## Domestic Violence

Domestic Violence was defined as assault by any family member or specified partner.

Domestic Violence was mostly experienced by women (78% in all ages). (Figure 39) and that most (86%) episodes happened in the 16 - 44 year age group where women suffered 91% of these injuries. (Figure 40)

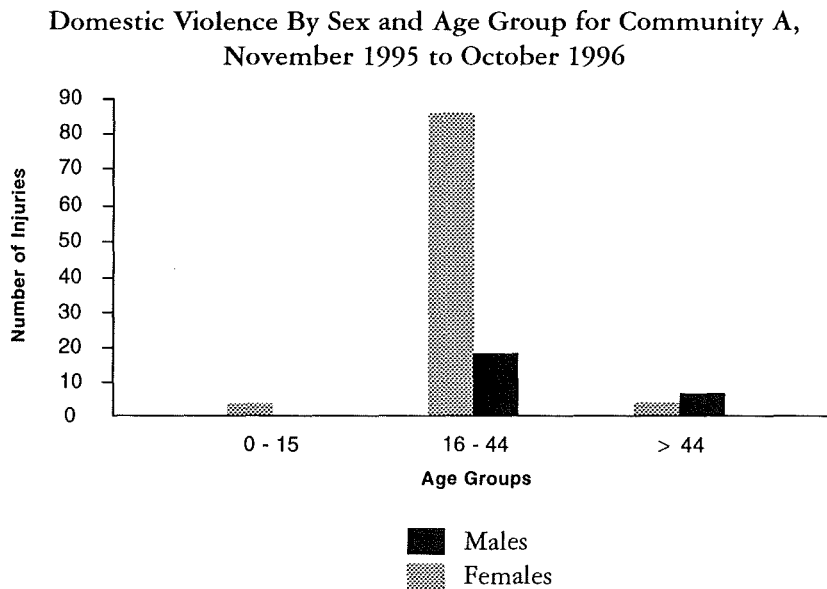
**FIGURE 39**

**Domestic Violence Injuries by Sex for Community A,  
November 1995 to October 1996**



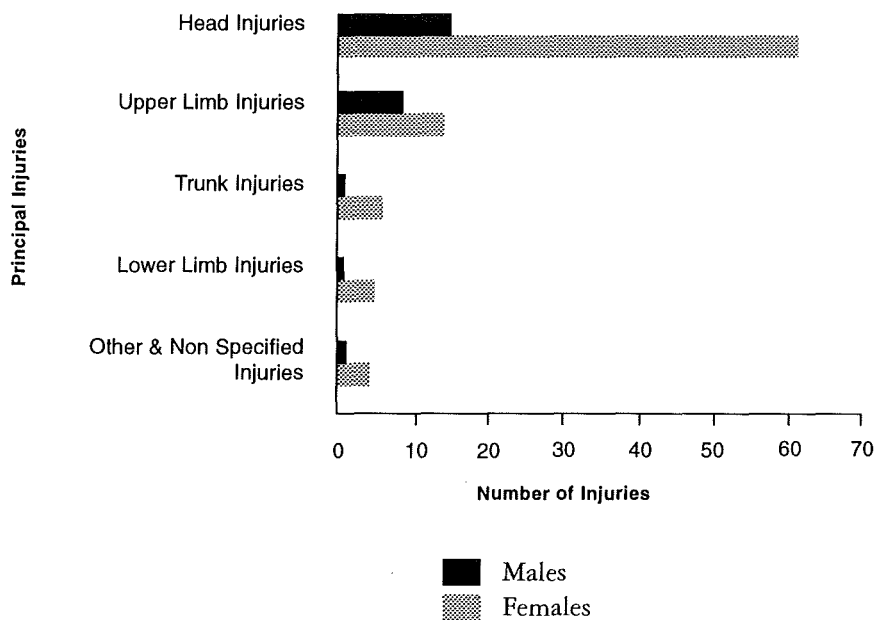
**FIGURE 40**

Alcohol-associated Domestic Violence in females by Principal Injury was dominated by head and upper limb injuries. (Figure 41)



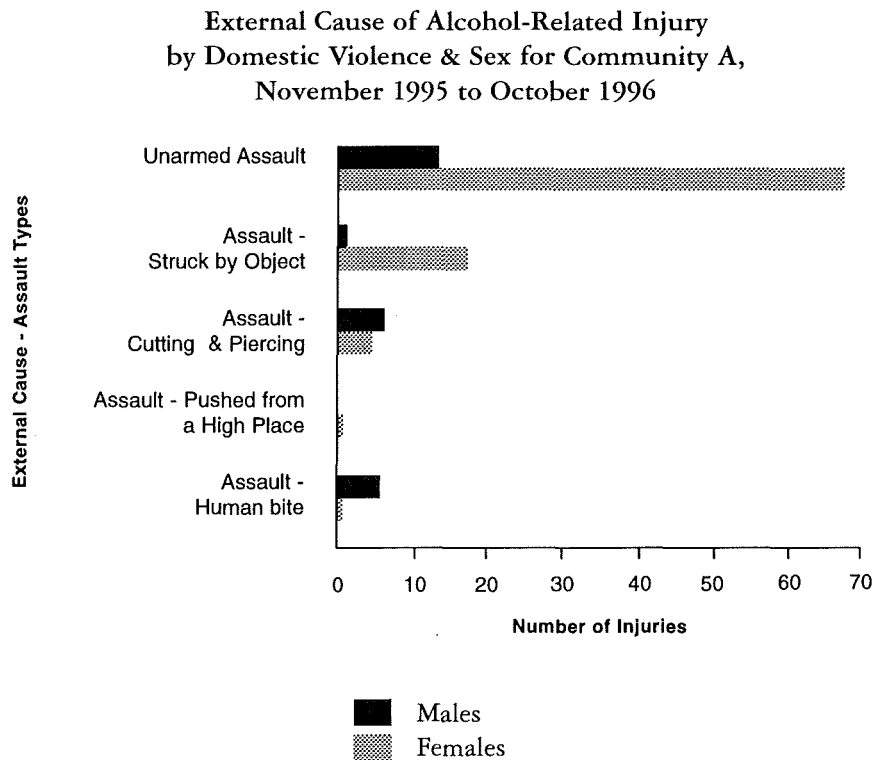
**FIGURE 41**

**Alcohol-Related Domestic Violence by Principal Injury & Sex for Community A,  
November 1995 to October 1996**



Analysis by External Cause showed that unarmed assault was the most common injury, but Assault by Objects and Cutting and Piercing were also significant. (Figure 42)

**FIGURE 42**

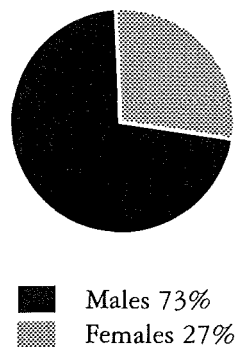


### Assault (excluding domestic violence)

Other Assault, excluding Domestic Violence, (with fists, knives, objects, & rape etc.), has shown a contrasting gender effect to Domestic Violence with males recording 103 injuries (73 %) against females at 38 (27%). (Figure 43)

**FIGURE 43**

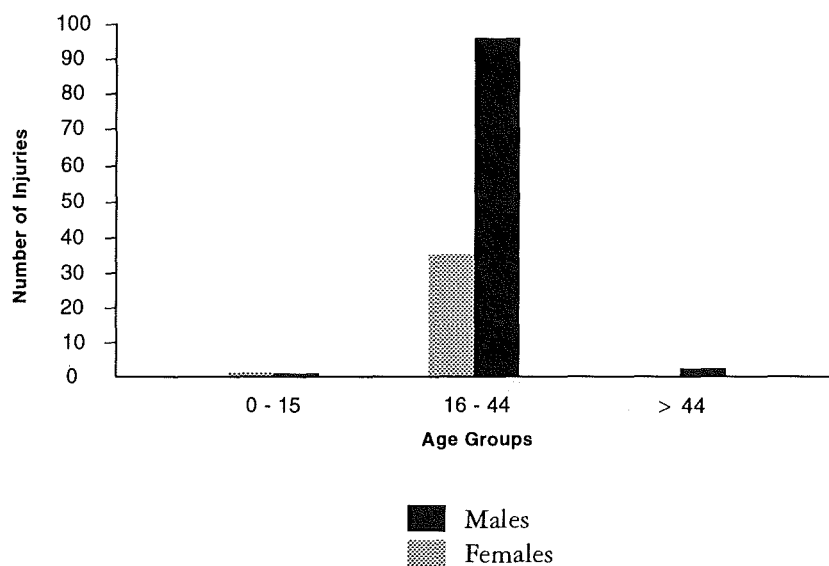
**Alcohol-Related Assault Injuries by Sex for Community A,  
November 1995 to October 1996**



Analysis by age group revealed that of the 141 injuries sustained in alcohol- associated assault with fists, objects, knives and rape etc., most (n=135, 95.7%) injuries occurred in the 16 - 44 age group with a male preponderance. Males in the > 44 age group recorded just 4 (2.8%) injuries whilst females over the age of 44 were not affected. (Figure 44)

**FIGURE 44**

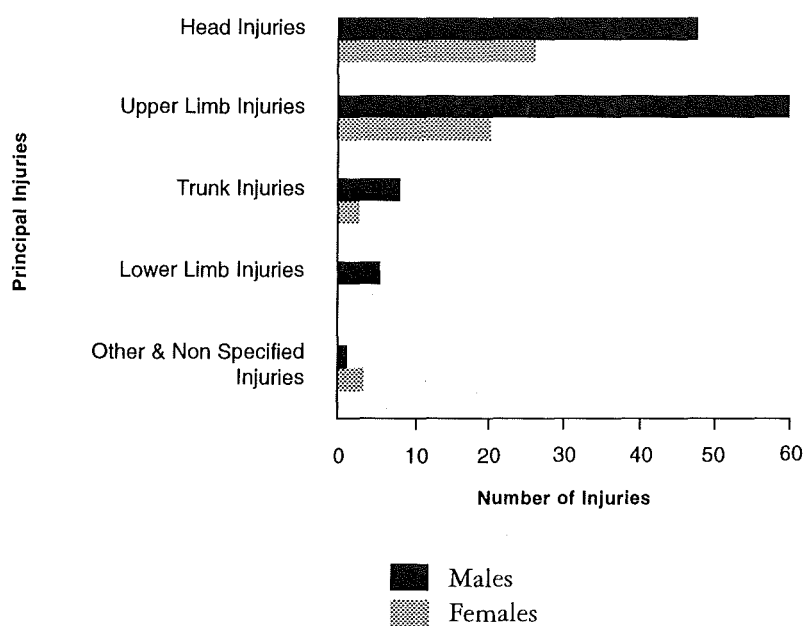
Alcohol-Related Assault by Age Group and Sex for Community A,  
November 1995 to October 1996



Among males, alcohol-related assault (excluding domestic violence) resulted mainly in head and upper limb injuries. (Figure 45)

**FIGURE 45**

Alcohol-Related Assault by Principal Injury & Sex for Community A,  
November 1995 to October 1996

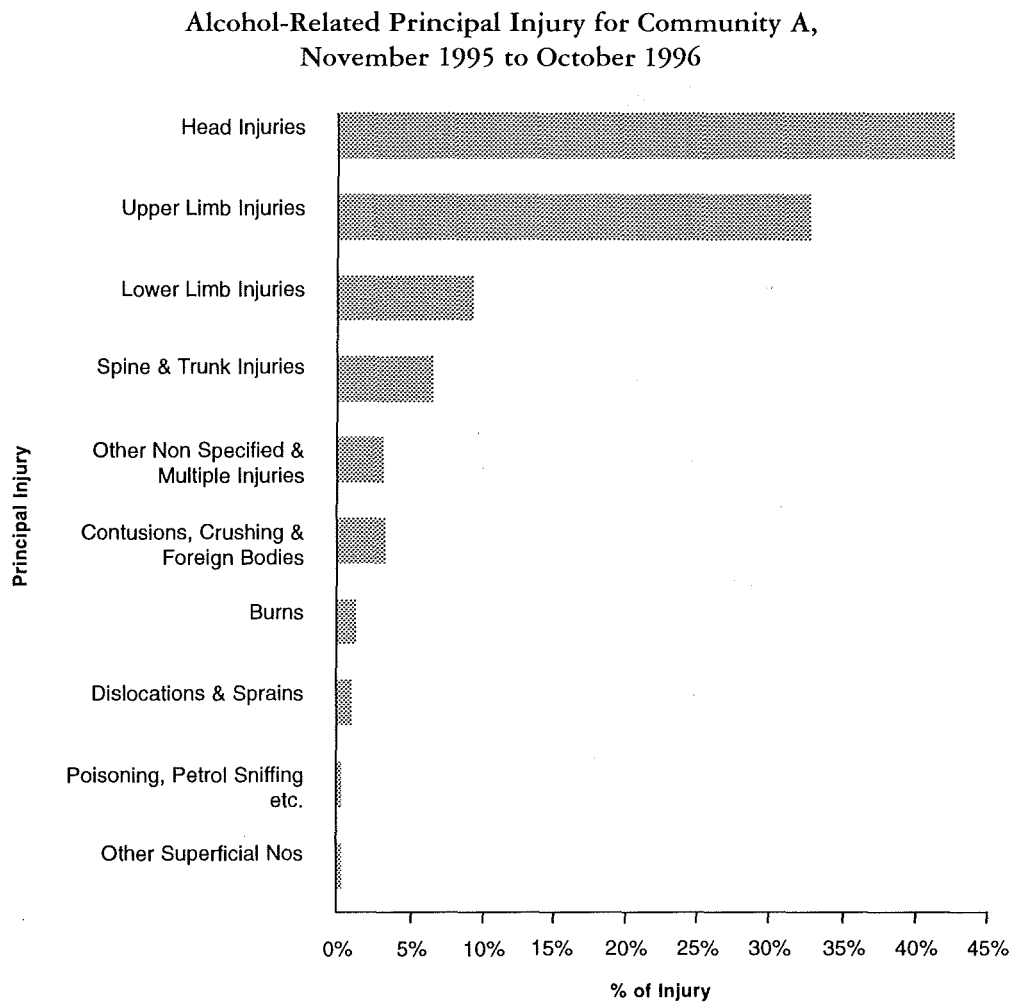




## Principal Injury by Alcohol Association

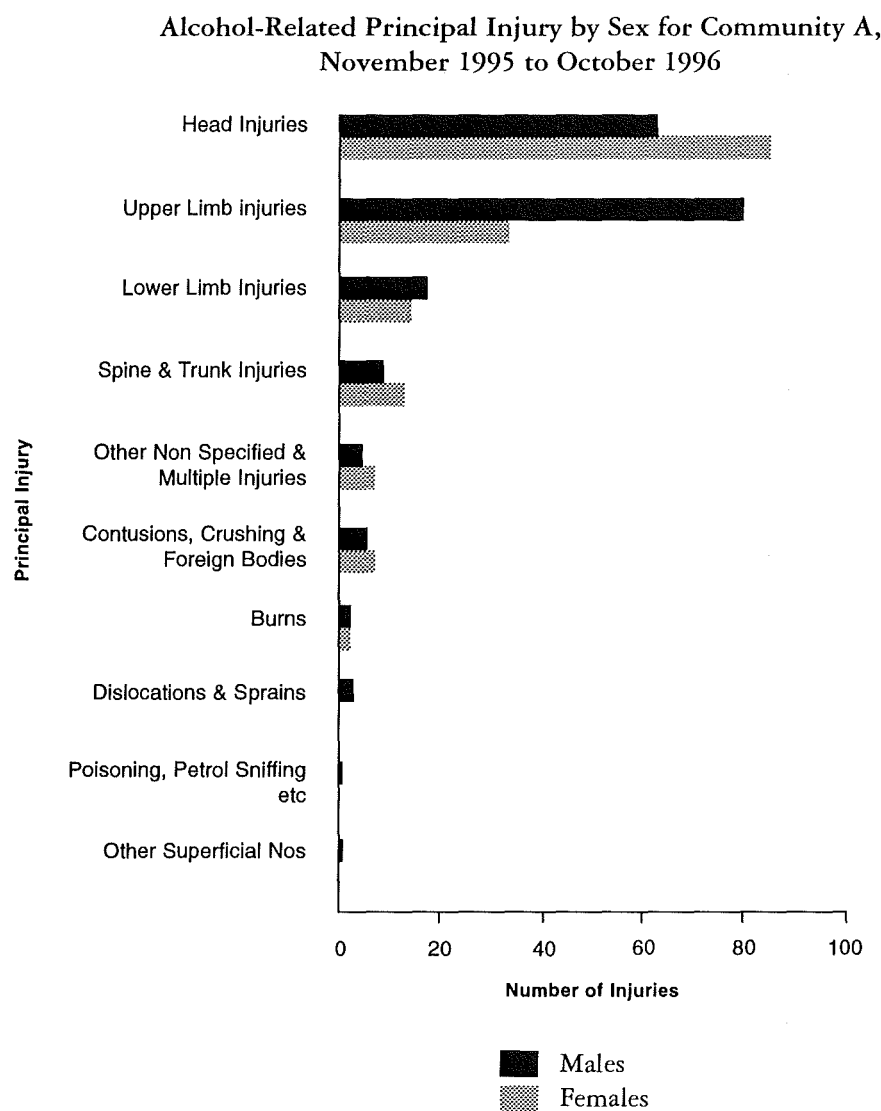
Head and upper limb injuries dominate alcohol-associated injury for all ages, due to the excess of alcohol-related assault among the 16 - 44 year age group. (Figure 46)

**FIGURE 46**



Alcohol-associated principal injury analysed by sex showed a great excess of head injuries among females and of upper limb injuries (including 43 tooth-knuckle injuries) among males. (Figure 47)

**FIGURE 47**



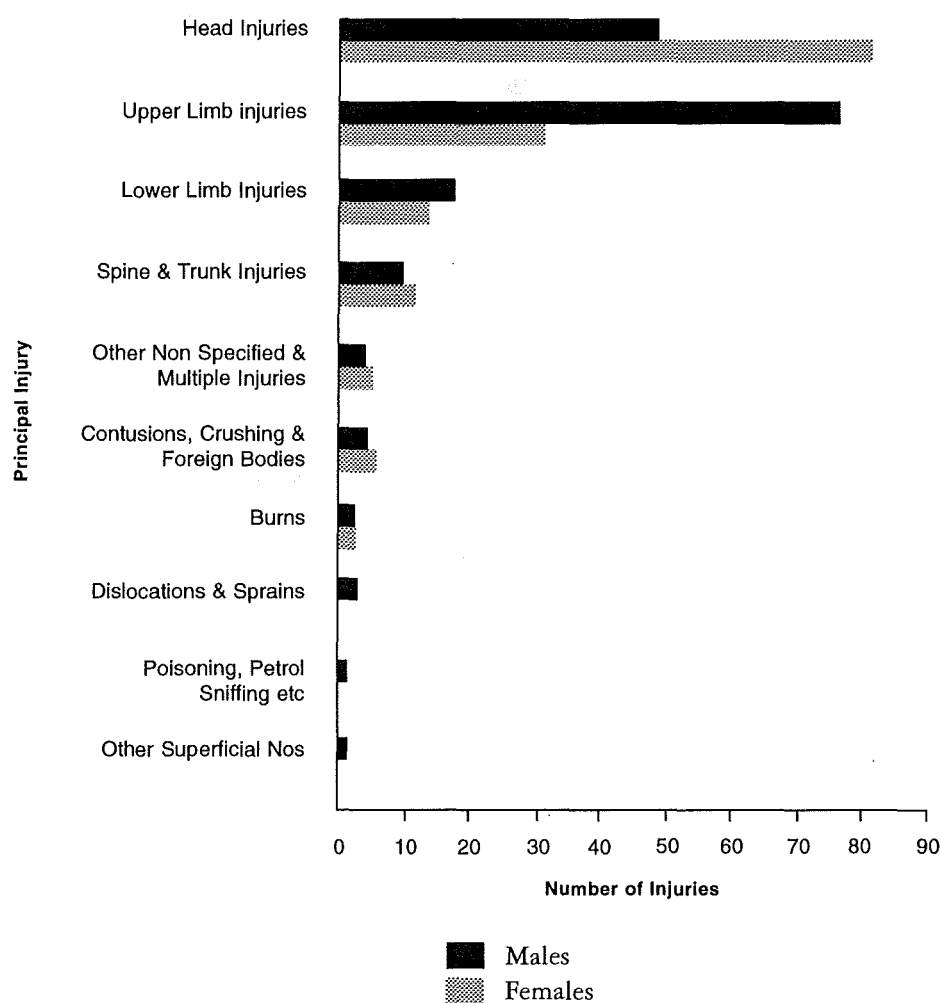
## Principal Injury by Alcohol Association, Ages 16 - 44

Head and upper limb injuries dominate this group and Figure 48 shows a similar pattern to Figure 47.

Males recorded slightly higher lower limb injuries at 17 (10%) to females 13 (8.7%). (Figure 48)

**FIGURE 48**

Alcohol-Related Principal Injury by Sex & Age Group 16 - 44 for Community A,  
November 1995 to October 1996

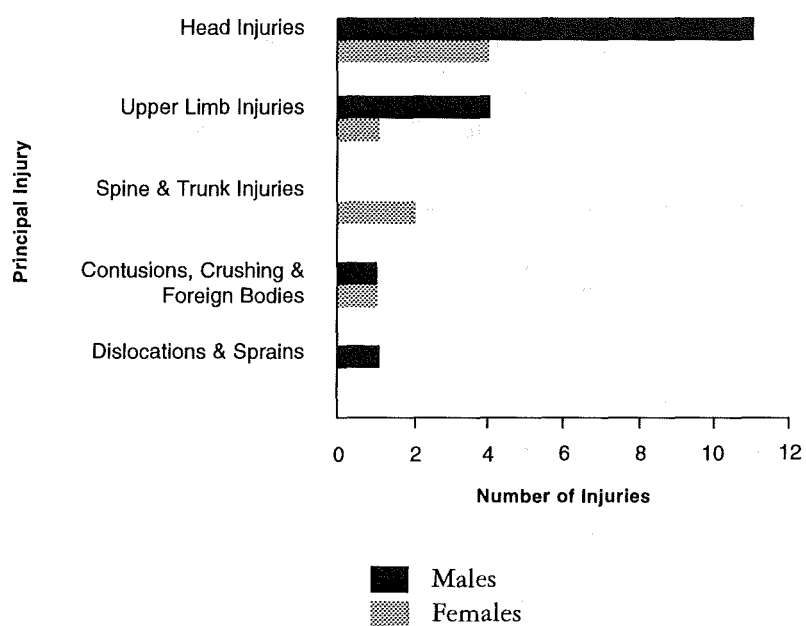


## Principal Injury by Alcohol Association, Over 44 Years Age Group

Numbers in this group are much smaller than in the 16 - 44 year age group but the pattern of head and upper limb injuries predominating is the same. The difference in this age group seems to be that women are not at such high risk, with most injuries occurring among men. (Figure 49)

**FIGURE 49**

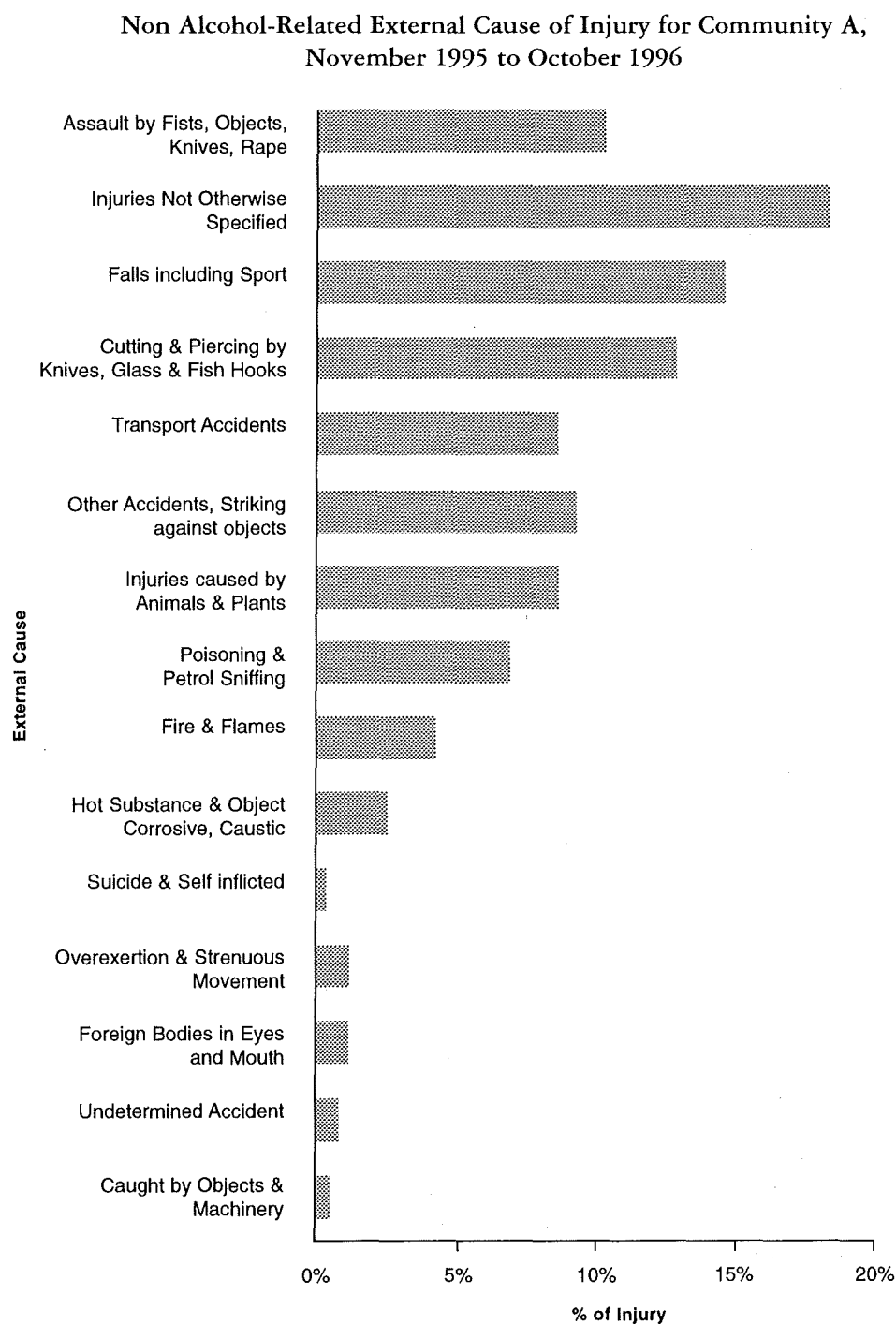
Alcohol-Related Principal Injury by Sex & Age Group > 44 for Community A,  
November 1995 to October 1996



## External Cause of Injury

For all ages, injury not associated with alcohol analysed by External Cause identified a high number of injuries within the N.O.S. category (n= 62, 18.4%) and Assault (by fists, objects, knives, rape etc.) not featuring prominently. Falls, Other accidents and Transport injuries feature here. (Figure 50)

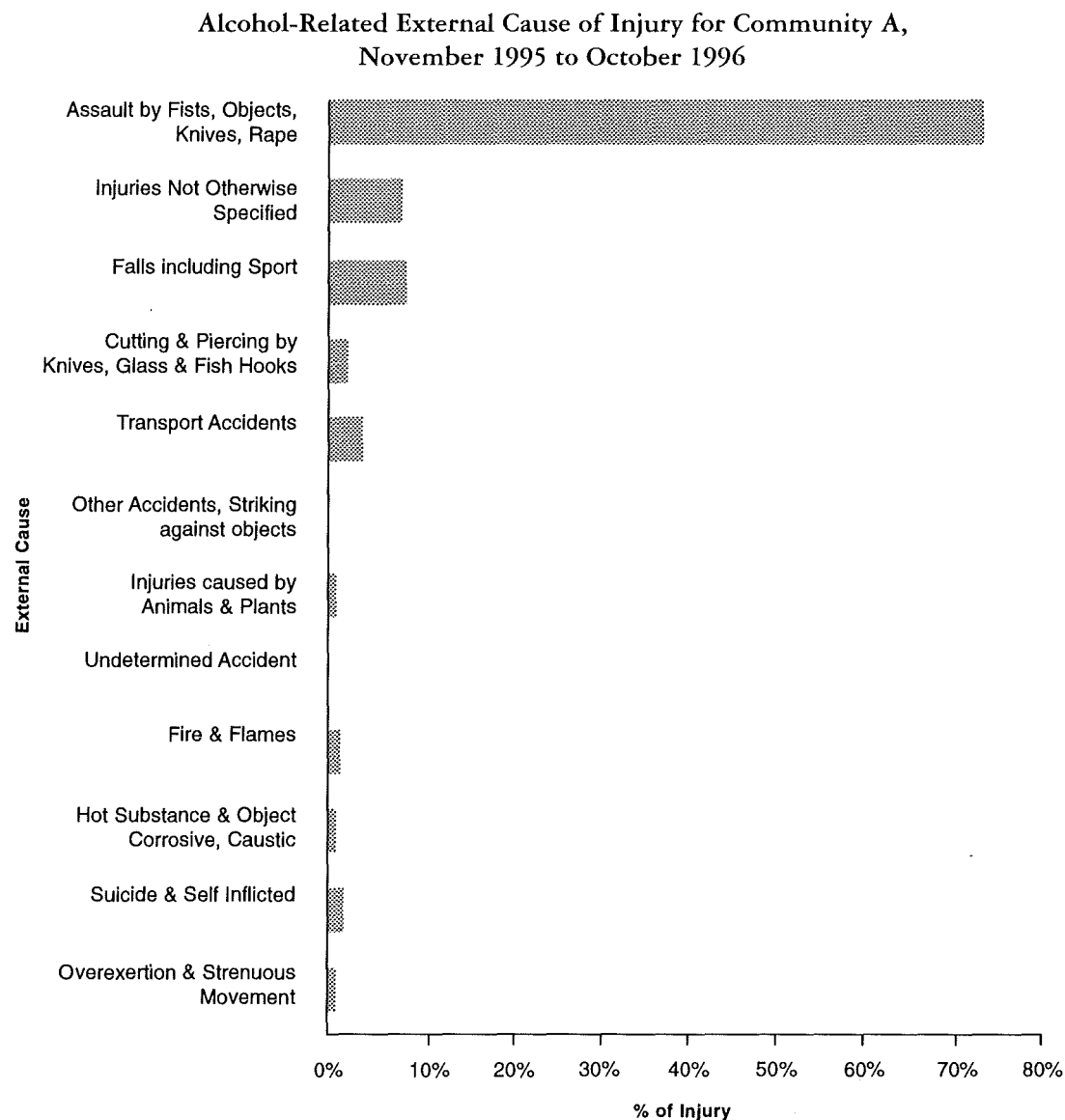
**FIGURE 50**



## Alcohol-Related Injury by External Cause, All Ages

Alcohol-associated injuries are overwhelmingly dominated by Assault. (Figure 51)

**FIGURE 51**

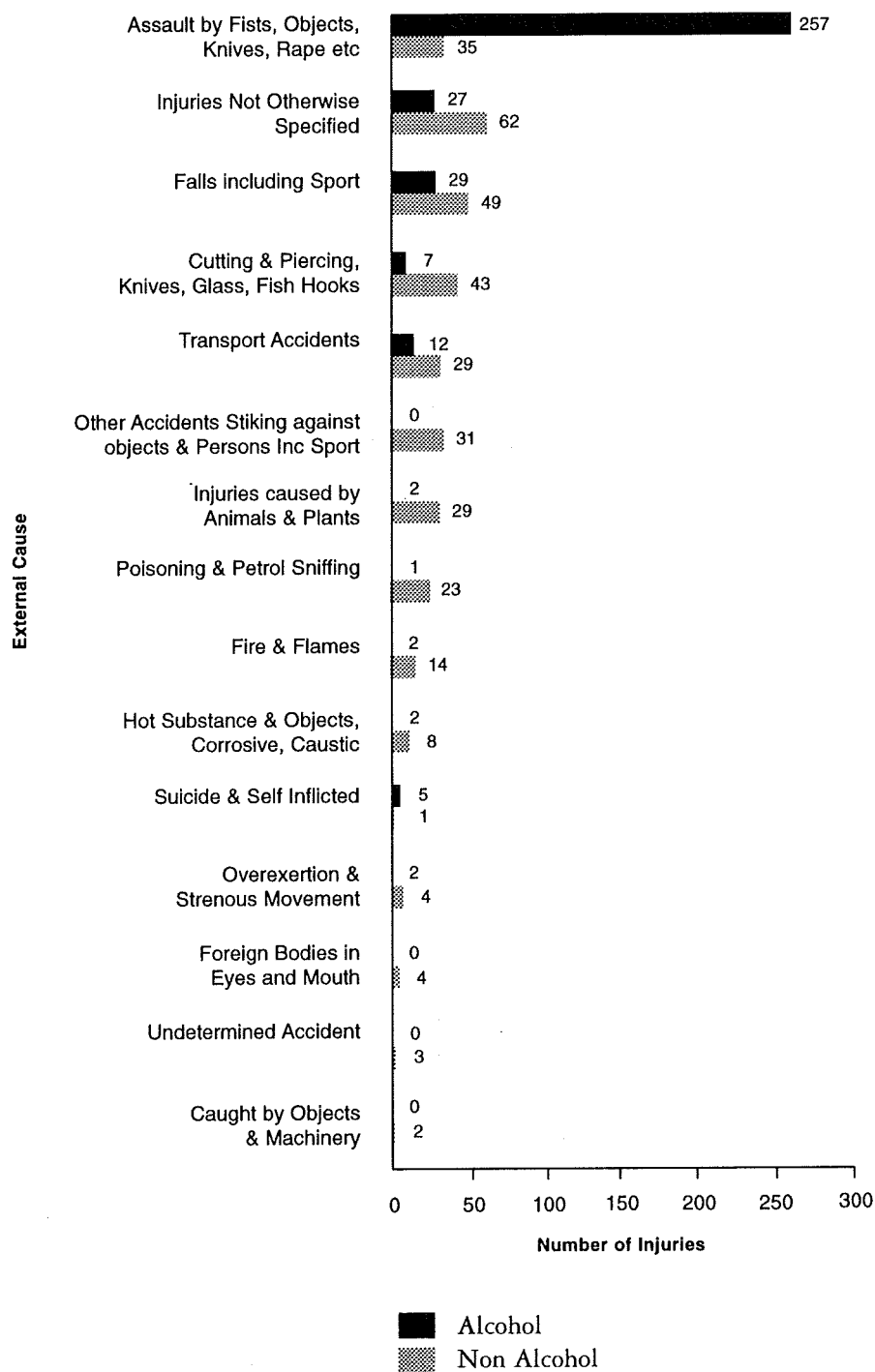


External causes of injury for all age groups are compared by association with alcohol in Figure 52. Again, alcohol-related Assault dominates the burden of injury in the community.

A similar comparison for ages 16 - 44 showed that, of the 483 injuries in this age group, 259 (53.6%) were caused by person to person conflict. However, when alcohol is identified as a contributing factor, the percentage of injury caused by person to person conflict rises to 74% (236 injuries). (Figure 53)

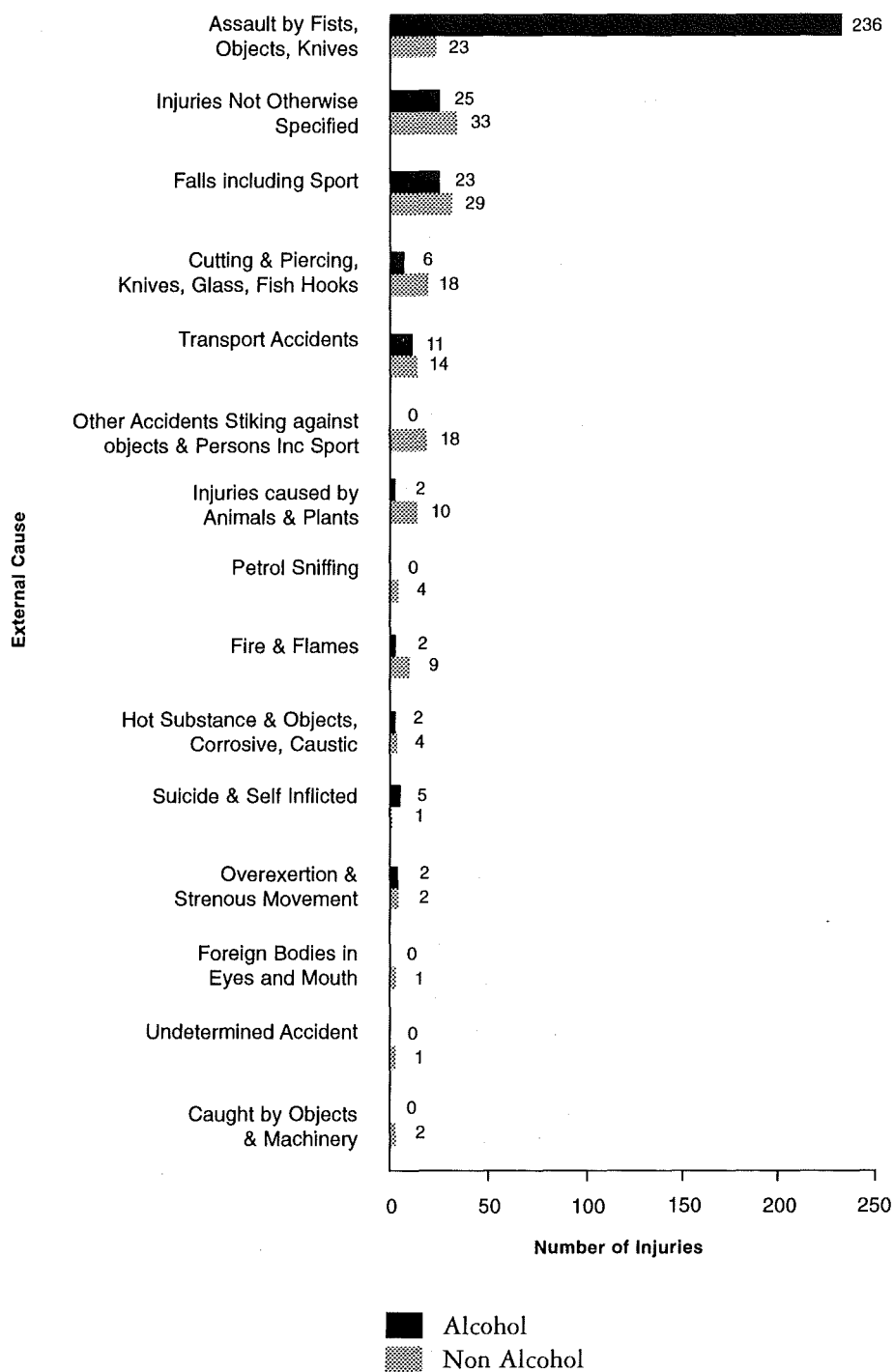
**FIGURE 52**

**External Cause of Injury by Alcohol Status for Community A,  
November 1995 to October 1996**



**FIGURE 53**

**External Cause of Injury by Alcohol Status, Age Group 16 - 44 for Community A,  
November 1995 to October 1996**





# Part Two:

## Case Studies

### Methodology

Early in the course of the project the Project Officer collected a series of descriptions of accident/injury events from 5 different remote Aboriginal communities in Far North Queensland. The accounts were collected opportunistically during these periods when the Project Officer was in one of the involved communities. Individual cases were identified by a variety of means including attendance at the clinic, self referral by individuals who had been involved in an accident or violence, when the purpose of the Project Officer in the community became known and, in two instances, following self-inflicted injuries resulting in death. Permission was sought from all injured parties, their parents in the case of children, and the next of kin of those who had died. Where appropriate, other informants were interviewed and clinic charts reviewed.

The amount of information obtained regarding these events varied considerably as a result of the nature of the injury, the complexity of antecedent circumstances, and the willingness and ability of informants to discuss matters at length. The Project Officer sought only to identify information that appeared to pertain directly to the injury rather than to develop individual case studies.

These event narratives were subsequently examined and specific constituent elements identified which were, in turn, located within a general sequence of events in the injury process. This produced six domains of factors: underlying; predisposing; precipitating; event; response and outcome.

Following the breakdown of each injury event narrative and assignment to these six domains, specific subgroups were selected for further examination from the total of thirty-two histories. These groups included children (9), males between 15 and 30 (8), females (11), males over the age of 30 years (5). In each instance, the elements of each factor domain for all members of the group were examined together to allow for the identification of common themes.

Given the nature of selection, the small numbers of cases in each group, and the limited range of information inquired of by the Project Officer, the aim of this process was to supplement the quantitative information that had been gathered during the study. Further depth was added in particular instances by the presence of the Project Officer in the immediate aftermath of the injury as the clinical and other responses evolved, thus allowing for participant observation. Depth was also added by the participation in this process of analysis of an individual with considerable clinical experience in the communities from which these event histories were drawn. In summarising these findings the aim is not to present these individual histories but to identify common factors and themes, and to explore the manner in which these are linked through the circumstances and incidents leading to and following from an injury event.

## Group 1: Children

There were nine event histories of children aged between one and eleven years of age with all save one being male. These incidents included several falls, petrol sniffing, lacerations from stepping on glass, being savaged by a hunting dog, and a gunshot injury sustained as a result of a weapon being discharged by another child in an adjacent dwelling. Whilst these cases were not randomly selected, the preponderance of males (the only female being an infant) suggests an increased vulnerability of young indigenous males in these communities to injurious events.

### Event

The events appeared to cluster at particular times which might, consequently, be considered periods of heightened risk. These were most commonly in the late afternoon and early evening, particularly towards the end of the week. This corresponds with that time of day in which children are at play after school, and that time of the week in which supervision is more likely to be compromised as a result of larger numbers of adults drinking at the canteen in the immediate aftermath of pay day. Immediate adult caretaker attention to these children appeared to relate to two factors: intactness of their family unit and proximity of family members; and the demandingness of the child which possibly related both to the nature of the injury and the temperamental factors.

### Precipitating

Precipitating factors might be considered to include the earlier mentioned periods of heightened risk. To this might also be added a seasonal component (e.g. one injury resulted from falling from a tree in an attempt to collect mangos, raising the possibility of a seasonal variation in injuries sustained by falling from trees). However the most common theme was the lack of supervision in environments of heightened risk, both of which may be considered in terms of predisposing factors.

### Predisposing

Regular and predictable compromise of parental and other adult supervisory availability emerged as a particularly clear predisposing factor which appears linked to patterns of adult alcohol consumption in a setting of limited economic resources. Very heavy alcohol consumption around pay day is common. The consequences in terms of increased risk for children is compounded by an environment of heightened risk. This includes such factors as poor or absent safety precautions in the built environment (children falling off verandahs without any rails), contamination of the play environment (widespread broken glass on the ground in areas in which children's activities occur), availability of dangerous objects in the domestic arena (firearms, savage "domestic" animals).

The persistence of these factors may be considered in terms of an increased tolerance or acceptance of, or resignation to, circumstances of heightened risk. Whether this reflects lack of awareness, lack of concern, or resignation in the face of circumstances over which concerned individuals feel there is no control is unclear. Precautionary measures given this increased risk (ensuring that shoes are worn given the amount of broken glass on the ground, or helmets while riding bikes) are not uncommon.

Proximally underlying these predisposing factors is the integrity of the primary social unit, the family. Family structures emerged as a fundamental issue, compromised functional family integrity (parent absent, extended family as primary caretaker, non-family primary carer, very young and inexperienced parent) appearing to relate to an elevation of environmental risk.

However, it also appears that in communities such as these there is a spill over of consequences such that the elevated risk resulting from the behaviour of particular members of the community increases the risk of all children (all kids play in public areas, a shot fired in a one house injured a child in an adjoining and stable house). Regardless, the benefits of structure were still apparent even in these instances in that integrity of a family unit appeared to support early and appropriate response to injury. It was not within the province of this project to explore the myriad antecedent underlying issues, however it is clear that those events and processes which historically undermined cultural and family integrity, and those social and economic circumstances which through increased investment in alcohol-related activities reduced participation in family-related practices, are central.

## Response

The response to these injuries varies and, as already noted, children from families in which there appeared to be clear and intact structure, and those children who were “demanding” following their injury were attended to relatively quickly. In addition to family characteristics, service issues appeared to influence the speed and nature of response. The absence of an ambulance service in these communities, (being reliant on a multi-purpose clinic vehicle without a full range of emergency equipment, and with failures occurring within the available equipment) was noteworthy. Delay in accessing services appeared in some instances to relate to clinic policy issues (of discouraging attendants “after-hours”) to triage (health workers seeing clients first), to training and competence (of health workers confronted with serious injuries), to equipment (failure of communication, absence of transport), and basic staff availability. In this context it is noteworthy that the time during which the majority of these injuries to children occurred, (late afternoon and early evening) is a time when the most senior staff are less likely to be immediately available. It is also a time when all those present (given that there are no staggered shifts) have already spent a day at work, including those who are designated to be on overnight. The work demands and psychological stress is compounded at this time of greatest risk for children by the additional service demands following pay day.

## Outcome

The outcomes for these children were varied, several of the injuries being quite minor and recovery being complete. However, for some, remoteness and isolation from services was clearly important in terms of accessing information and follow-up services (including counselling) which may potentially have contributed to longer term consequences. What did not seem to change as a result of these injuries was the level of background risk in the community. The children remained exposed to compromised safety in the home environment (rails remain absent where children have fallen from verandahs) and in areas of play (glass still littering the ground). It is reasonable to say that outcomes relate to the severity of the injury, to lack of family integrity, and are likely to be negatively influenced by those factors which functionally (policy) or practically (expertise, health hardware) reduce clinical availability. Finally, positive outcomes are despite, rather than due to, changes in the wider environment.

This analysis suggests that for children in these settings there is a background of elevated risk that impacts children community-wide. There is, in this regard, a chain of consequences in which safety is serially compromised. Thus the impact of social disadvantage appears to have consequences for family integrity and patterns of adult behaviour. One result of this is reduced attention to maintaining an environment of maximal safety for children, compounded by diversion of adult attention from supervisory roles at times of heightened risky behaviour. This in turn reduces the proximity of responsible adults should an accident happen, timely and appropriate clinical response, potentially further compromised by service factors which may reflect the restriction and demands of remote practice, but may also reflect priorities.

## Group 2 : Young Adult Males (15 - 30 Years of Age)

Eight event histories involving males between fifteen and thirty were collected. These included one man who approached the Project Officer to describe an injury that had happened several years before, but as a result of which he was experiencing ongoing problems. The other seven individuals had all presented with injuries purposely inflicted, including four who sustained their injuries during fights and three whose injuries had been self-inflicted, of whom two died. This constellation of injury events cannot be considered to accurately reflect the distribution of injuries in this age group of males. However the circumstances are not untypical and the event histories provide insight into features of the most common injury presentations in this group - violence.

### Event

As with children, the events described (save for the work injury) clustered at particular times, specifically at the end of the week, most commonly in the evening or night. Alcohol was universally involved and the events most commonly occurred in the context of the domestic arena save for the two fatalities from self-inflicted injuries (one by hanging and the other as a result of gunshot), both of which occurred in public settings. Injuries resulting from fights included those sustained from having been the victim of assault, both armed (knife wound) and unarmed (fractured jaw from being kicked about the face), from having been the perpetrator (fractured metacarpal and tooth-knuckle injury), and non-assault injuries "accidentally" sustained in the course of a fight (lacerations from having smashed louvres while striking out). All of these events involved others who were likewise drinking or intoxicated suggesting an interpersonal setting of increased risk (alcohol consumption within a domestic environment in which significant intoxication is occurring) which is heightened at particular times (of high alcohol consumption or in the immediate aftermath). In certain instances the injury appears to have been compounded by the degree of intoxication of the individual involved (by lack of restraint following an injury or, through lack of coordination and evasive behaviour, being unable to avoid blows), and possibly by the degree of intoxication of others present (who continued to cause harm or, in the case of a self-inflicted injury, may have been too affected by alcohol to notice or respond).

### Precipitating

Precipitating factors clearly must include the state of intoxication preceding the injury. In this regard the pattern of consumption appears critical in that this most commonly appears to be intermittent binge drinking which is related to the availability of resources in a welfare-dependent economy. The context of these drinking episodes is particularly important as the injuries clearly occurred in an interpersonal context (including those which were self-inflicted) in which the perpetrators and victims were all (save one) male. This context was consistently one of heightened tension in which 'apparently' trivial events sufficed to initiate an escalation of behaviour leading to harm. While the events recorded all appear to have ultimately been impulsive rather than premeditated, the process was not one of a sudden eruption of injurious behaviour. Rather, there was a clear period of mounting risk associated with disinhibited behaviour. This 'prodrome' occurs on both a community level as tensions rise and injury-predisposing disinhibited behaviour escalates among those who are drinking, and at the level of the subsystem in which injury from violence occurs which may also involve others who are not drinking or drinking less.

In these settings the immediate social precipitant between parties was generally relatively trivial (for instance an argument over cigarettes or food) but at times involved an individual entering into an arena of existing risk and becoming a casualty in the course of trying to intercede in an existing conflict situation. In the case of the two deaths and one non-fatal injury by deliberate self harm the individual 'prodrome', in retrospect, appears much longer, with a crescendo escalation in

threats/behaviour prior to the ultimate act. It is of note that both fatalities, whether consciously "intentional" or not, resulted from acts of high immediate lethality (hanging and shooting, both of which are common causes of Aboriginal self-inflicted deaths) with limited scope for intervention after the event, whereas the means chosen by the individual who survived was not (self-inflicted knife wound). It is also worth noting in this context that survival in this case may have been supported by a family system that was responsive to the individual's "prodrome" behaviour, whereas in the case of the death by hanging, the state of intoxication of immediate contacts and the focus of that group on the process of drinking precluded intervention in the immediate phase prior to the act.

## Predisposing

Predisposing to such harm are factors on individual, family and community levels. In terms of the latter the patterns of regular binge alcohol consumption and the associated behaviours are central. Such drinking is clearly related to the availability of resources which determine the periodicity of drinking bouts, and their intensity and duration. In the welfare-dependent environments of these communities infusions of resources occur on a regular basis with additional "windfalls" from such sources as tax returns resulting in significant increases in expenditure on alcohol, suggesting that the limiting factor is the amount of resources available for expenditure on alcohol.

However, the manner in which alcohol is consumed is also a learned behaviour, both in terms of the exposure of communities to patterns of consumption (and associated behaviour) by those who introduce alcohol, and in terms of the exposure of each new generation of drinkers to the normative patterns of existing drinkers.

Regular binge drinking may thus be considered to be expected of most drinkers in these communities. Furthermore, the frequency of violence in association with drinking is such that it appears that violence, somewhere in the community, is expected in association with such weekly binges. Given the public nature of Aboriginal disputation, exposure to such violence is to be anticipated for most community members on a regular basis. As an anticipated facet of community life, binge drinking-associated violent behaviour may thus be considered to reflect Aboriginal "drunken comportment" in these communities.

The public expression of personal grievance, common in indigenous communities, is thus compounded by both the disinhibition of alcohol and the expectations of associated behaviour. The consequences are amplified when such displays become associated with highly dangerous weapons, which has happened in one of the communities in question. The association of firearms with such practices both increases the potential for fatal outcomes (as happened in this case). It also rivets the attention of the community, drawing all into the unfolding drama and thus, ultimately, reinforcing the communicative appeal of such behaviour - a subculturally-informed idiom of distress - particularly to young men. Of course, the possibility of this particular expression is contingent on the availability of firearms and ammunition. The lack of secure storage for weapons and their consequent availability at times of heightened tension is thus important. Furthermore, this incident is but one among many similar incidents in this community in which firearms have been used, including at least six in the last four years in which injury has resulted (with two fatalities). At a community level one must also consider whether there are structural, cultural or social factors which impede the adoption of controls over weapons availability in the face of repeated and highly visible episodes of potential and realised harm.

However, it is within the family that behaviour is ultimately shaped. Histories of violence associated with alcohol in the families of those involved in this series were common. Indeed, arguments in the domestic arena were features of six of the seven personal violence event histories. The "domestic arena" is, in this sense, both an interpersonal and a spatial domain. In terms of risk, these are related. The built environment of family life in these communities is such that housing that is inadequate to the needs of a "nuclear family" frequently (if not usually) contains

multi-generational family systems. Crowding in poorly designed and maintained buildings is common with two consequences that directly relate to the potential for injurious behaviour. Such settings, by virtue of the stresses and tensions that result from crowding in circumstances of socioeconomic adversity (including competition and arguments over limited resources such as, in one of the events included in this series, over food), predispose to situations that lead to confrontation and conflict. In turn, the behavioural consequences (disputation and violence) are incorporated into "normative background" of child development. Even in those homes not directly impacted by problem drinking, children are exposed to models of alcohol-affected adult male behaviour in the family/domestic arenas of nearby houses. Balanced against the tension within families are those between families which contribute to raising levels of tension across communities.

On a personal level these descriptions of injury from young adult male violence blur the distinction between perpetrator and victim, ultimately so in those instances of self-harm. Problems with the management of anger and appropriate emotional coping skills are suggested by histories of violent acting out in several instances, repeated threats of self-harm and actual instances in others and of fatalistic statements regarding personal inability to change behaviour in a setting of intense peer pressure (to continue drinking). These factors suggest that violence as a response to mounting emotional tension is not only expected behaviour, but that for these men there are probably few if any alternatives given poorly developed emotional coping skills. For these young adult men the developmental environment (family and community) has provided lessons regarding behaviour which will be tolerated, and has not provided lessons in skills to avoid such outcomes. In this regard the ultimate target of their violent behaviour (self or others) appears arbitrary.

Underlying these issues are those historical and contemporary factors which support continuing economic dependency and which frustrate the development of individual and group independence. Clearly these same factors contribute significantly to overcrowding, conflicts over limited resources, and a climate of labile tension linked to predictable cycles of resource depletion and of fleeting apparent (but illusory) "abundance". While the family environment of early life did not provide for these young mens skills in dealing with emotional turmoil, this situation appears not to have been in any way helped by their educational experiences which, in addition, seems not to have advantaged them at all in terms of their employment and economic prospects.

## Response

The response to these events was complicated by several factors. The capacity for immediate intervention by bystanders was restricted by the time at which most events occurred (night), the immediate lethality of certain events (hanging, shooting), and by the state of intoxication of those closest by in certain instances. In the cases of less serious injuries, delay in accessing treatment was encountered both because of subject factors (presenting the next morning, which may have been due to the level of intoxication, as in the case of one individual who sustained major facial injuries including a fractured jaw, and/or concerns about raising nursing staff in the middle of the night). The nature of injuries sustained in this fashion, all of which must be considered contaminated, is such that even with those that appear "minor" (such as the common tooth-knuckle injuries) delay in accessing appropriate treatment can have significant consequences.

Given the nature of the injuries reviewed (two fatalities, two injuries that required immediate evacuation by the RFDS, and one delayed evacuation) it is obvious that severe trauma is not uncommon in these settings. Emergency management may be complicated by circumstances such as the presence, in several instances, of groups of intoxicated bystanders which may both impede treatment, and as was the case in at least one of these events, cause the involved staff to be fearful for their safety. The emergency management of severe trauma is reliant on the availability and skill of local health staff, their familiarity with the circumstances of the community and the workings of the health centre, and the availability and functionality of appropriate equipment. In none

of the communities under study is there a resident medical practitioner. It is not known whether nursing staff in these communities have training in the emergency management of severe trauma. However, it is clear that their capacity to react was compromised in several instances by absence and failures of basic equipment (including the absence of properly equipped and maintained ambulances). Predictably, stress experienced by staff around these events was significant, a factor probably compounded by the high turnover of staff in one setting which appears to have compromised confidence and the development of clear protocols for emergency situations (including deliberate self-harm).

## Outcome

The outcomes for the young men who survived these events varied. While the factors influencing outcome were diverse, it can be reasonably asserted that uncomplicated injuries in this group are the exception. Outcome for the young men in question was compounded by the delay in treatment and the isolation from specialist services (including mental health services which must be considered also for family/community level outcomes in terms of postvention following self-inflicted fatalities). Outcome may also be considered to be generally poor in that, for those individuals involved in these events, there was frequently a previous history. That similar events had occurred earlier seems not to have diminished the likelihood of further injury for these individuals and suggests that, for those who survived, these events are unlikely to attenuate their drinking and injury career. Significantly, there appears to have been nothing in the nature of either community or institutional responses and reactions to these events that in any way reduces the likelihood of similar events recurring. Indeed it might be argued that such violent behaviour remains unchallenged (in terms of meaningful intervention, confrontation or consequence) and that each instance contributes to an escalation of precedent.

## Group 3 : Females

Event histories were examined for nine adult women whose ages ranged from 18 to 51 years, five of whom were in their teens or twenties. Eight of these involved injuries sustained through violence (the other being a result of dog bite), in one of which the injury itself (a minor injury to a hand) resulted from assaultive behaviour on the part of the injured woman herself. In the other seven cases these women were the victims of male violence, the perpetrators having been drinking in all cases. In five (possibly six) of these instances, the assailant was the injured party's partner, with both parties being intoxicated in all cases. The only injuries as a result of violence from someone other than a partner were sustained by a non-drinking woman into whose house the assailant (who had himself been drinking) had forced entry. As with the discussion of young adult males, these event histories cannot be considered to accurately reflect the distribution of injuries but give insights regarding the most common cause of injury for adult women - interpersonal violence.

## Event

These events clearly demonstrate the pervasive involvement of alcohol in interpersonal violence involving women. This includes both intoxication of the perpetrators of such violence and of those sustaining the injuries. The severity of the injuries sustained varied considerably, the state of intoxication of the victim being a significant factor in several instances in that evasive action or escape was compromised. All save one (a woman who sustained knife wounds to the face and trunk) involved blunt trauma in which the perpetrator used a non-weapon object that happened to be at hand. These included bottles, bricks, a star picket, an iron pole and a weight from a set of gym equipment. The most common part of the body involved in these injuries was the head and face.

Alcohol appears also to be central in informing areas of risk of injury in terms of both time and place. These injuries occurred during the period through the end of the week (from payday) and the weekend, the time of day being less consistent (women appearing vulnerable not only in the course of heavy drinking, but in the aftermath). Most commonly, these events occurred in the domestic arena or at the canteen. The lack of intercession on the part of bystanders when present appears to have reflected their state of intoxication, the only instance from this series of effective intervention being by a neighbour on behalf of a woman whose house had been broken into, both she and her benefactor being non-drinkers.

## Precipitating

Alcohol thus looms large in terms of precipitating factors for injuries sustained through violence to adult women. Its universal association in this series (and thus, probably, its usual association in the wider community population) suggests that such violence might be considered to be contingent on the availability of alcohol, the clustering of injury around payday supporting an association to a pattern of heavy binge drinking. Certain of these women who were the victims of violence from a partner were injured in the aftermath of binge drinking, suggesting the persistence of vulnerability in the context of intimate relationships past the point of peak intoxication. Indeed, the "cause" that was most commonly identified was "jealousy," which also applied to the only premeditated instance of violence (also the only instance in which a weapon, a knife, was used, and in which an explicit threat had been articulated). Comments were made regarding pre-existing patterns of jealousy-related violence, the conjunction of jealousy and intoxication appearing a particularly volatile combination. In this context, while the immediate apparent precipitant generally seemed trivial, it occurred in an interpersonal space that was already charged with the possibility of imminent harm.

The frequency with which interpersonal violence appears to occur in the formal drinking venue, the canteen, and the public nature of disputation in that setting (and generally), support an implicit if not explicit association of violence with that space and, thus, possibly an expectation of same. That several of the couples involved had past histories of similar events and injuries in the same circumstances may also support the salience of environmental cues, which may be constituted of time, place and person, the progression to violence being contingent on (or enabled by) alcohol and its effects. That several of the couples, independent of the severity of the injury, were quickly reconciled when they were sober, may also support the context dependence of this behaviour and thus the importance of environmental cues (of the built and interpersonal environments) as precipitating factors.

## Predisposing

Predisposing to injury through violence for those women assaulted by partners must obviously prominently include being in a relationship in which such violence had occurred before and which had not resulted in consequences reducing the potential for recurrence. These event histories suggested pre-existing unstable relationships with repeated abuse and reconciliation. The events were acted out in crowded domestic arenas or in public spaces and were thus available as models of particular patterns of behaviour between men and women (one instance involving a particularly violent assault was witnessed throughout by the 4 year old child of the victim). It is likely that all those involved in these events had themselves been witness to similar occurrences over many years. It is also likely that such exposure would be consequential in terms of 'normalising' such behaviour.



From the collected event histories it appears that these women were vulnerable in part as a result of a sense of emotional insecurity on the part of the men involved. This is demonstrated by the frequent references to jealousy and by the occurrence of violence in several instances following on from behaviour of women that asserted emotional independence (refusing to be reunited with a partner) or which was not sufficiently deferential ("talking smart"). Indeed, such is the intensity and focus of rage in such circumstances that "collateral" injuries may be sustained. This was the experience of the non-drinking woman whose house was forcibly entered, this being by an intoxicated man in a jealous rage seeking his partner. This suggests the overflow of vulnerability to interpersonal violence beyond the drinking circle and the arena of immediate interpersonal tension. It also demonstrates a disregard for personal space on the part of such intoxicated and single-minded men and the limited capacity for a woman, despite security measures, to define a space of absolute safety from the disorder flowing through the community as a whole.

There thus appears to be a regularly fluctuating level of tension and vulnerability in these communities in which risk of injury to women from violence varies in synchrony with the consumption of alcohol across the community. Supervening on these cycles are episodic increases in risk, similarly associated with alcohol, resulting from specific events that involve drinking (a football carnival in this series, bringing people from other communities and increasing alcohol consumption) or that are associated with supplementary alcohol entering the community (in this series being an injury sustained around consumption of "sly grog").

The tolerance or acceptance of this level of increased risk must be considered an underlying factor which appears not to be confined to injury resulting from alcohol-associated behaviour. As is the case for children, the environment appears risk contaminated in such a way that all are exposed to some degree of increased risk. Thus the only injury not clearly related to alcohol in this series was sustained by the oldest woman who had been attacked by an unrestrained dog which was known to have injured people on several previous occasions.

Similarly, as was the case with both other groups, underlying issues also include those social and economic factors which result in patterns of regular heavy binge drinking, overcrowded domestic settings, and perennial tensions over limited resources. The elevated risk of women involved in alcohol-affected violent relationships is clearly also increased by those factors which reduce their ability to safely leave such relationships, or which influence them to remain in cycles of abuse. As personal space is frequently violated and designated safe facilities are limited, women are unable to find secure sanctuary at times of heightened personal or community turmoil.

However, given the nature of injuries to women generally in these communities, and from violence specifically, the most salient underlying issues relate to that set of historical and contemporary social and cultural factors that inform the behaviour of young men in relation to alcohol and towards their partners. As was the case with injuries sustained by young men, this must include the very limited social and emotional coping skills of these young men, both victims and perpetrators of violence, which in turn leads to those factors which underpin the deficits in self esteem and competence experienced by young men in these indigenous settings.

## Response

As was the case with injuries to men, the responses to these injuries were in several instances compromised by the milling about of other community members, many of whom were intoxicated. For attending health staff this not only resulted in inadvertent physical obstruction, but a perception of threat and consequent uncertainty. This was compounded by the absence of an ambulance and failures in the equipment in the multi-purpose vehicle available. Given the nature of these injuries, the presence of police would appear to have been appropriate but was notably

absent in several instances which may have been due to a period of staff transition. There was also a delay in seeking medical attention in some cases that seems to have resulted from the state of intoxication of the injured woman, but in another case related to the presence of perpetrator in the health facility (the only such site for health services).

## Outcome

Outcomes for these women included two evacuations to Cairns due to the severity of injury. Prompt attention locally to treat a pneumothorax probably averted a very serious and possibly fatal outcome in one case. Generally, however, the common denominator in terms of outcomes is the lack of change in the level of risk confronted by these women. Consequences for perpetrators are unknown but they were not removed from the environment and, theoretically, continued to have access to alcohol. Longer term consequences for one woman included persistent anxiety and frantic attempts to ensure personal safety which included flood-lights and sleeping in shifts with a relative. This suggests the limited range of options available in this setting, being either escalating security measures (available to a minority with housing capable of being secured), escape (to another community), identifying with a significant subgroup (for instance, a church organisation) or resignation. Given the recurrent patterns of violence and the level of intoxication of some of these women, this does not appear unusual.

## Group 4: Older Men (Aged 30 Years and Over)

Six histories were obtained for men over thirty years of age. One of these related to a man who had died some time previously, the story being brought to the attention of the Project Officer by the deceased man's brother. While of more than passing interest, as it primarily reflected service issues, it is not included in this analysis but will be returned to at the end of this section.

The five men were aged 31, 42, 45, 50 and 55 years. Four of these men sustained injuries as a result of interpersonal violence with alcohol being involved in each case. The only event not involving alcohol was a hand injury sustained by the youngest of this group who was employed and, when drinking (but not at the time of the injury), did so moderately. His social circumstances included a caring family relationship and the injury occurred while he was trying to help a nephew, who he believed to have some emotional problems and who had reported he was being bullied, by teaching him to box, in the course of which he hit a wall. While this might suggest that, in this community, physical means are reinforced as coping means even within a cohesive family structure, it is, regardless, the only instance of a "simple" accident.

## Event

In each of the other four events, the men, all over 40 years of age, had been injured by a woman while intoxicated. These involved injuries to the trunk and legs of one man from a wielded glass louvre, a forehead laceration of another from a thrown full can of beer, superficial injuries from a saw and a fractured ulna from blunt trauma sustained by the third, and facial injuries resulting from being hit with a saucepan followed by being stabbed an hour later in the case of the fourth.

The time of injury varied, but in all cases bore a relationship to alcohol or its consequences. One occurred late on a Monday night, the week of a tax-refund which infused a considerable amount of money into the community. Two of the others sustained their injuries in the morning following payday drinking, and the third on a mid-week morning after drinking cask wine (sly grog). Although each of these three men were injured in the morning, all had already been drinking, two admitting that this was a "reviver". Compared to younger men, who were more typically injured at the time of or immediately after peak drinking, the behaviour of these older

men appears to place them at risk somewhat later. It is possible that this later "danger period" reflects the development of an alcohol dependence syndrome among this older group with longer drinking histories, with the emergence of withdrawal related features (including alcohol seeking) following drinking bouts. Furthermore, by comparison to the accounts of younger men and women where the perpetrators were almost always male, all of these four older men (including the man injured in the evening, who described himself as an "alcoholic") were injured by women (who were all also drinking). This suggests a change with age for men in the pattern of vulnerability resulting from alcohol-associated behaviour, with older men more likely to be the injured party, perhaps reflecting the progressive consequences of drinking that reduce capacity or effectiveness of defensive or evasive behaviour.

## Precipitating

For three of these four men injured by women, the assailant was a partner and, in each instance, there was a history of recurrent violence with a precipitating factor being jealousy in each instance with one also involving conflicts around pressures to gamble. In the case of the fourth man, who was injured by a woman who was not a partner, the injury occurred during an alcohol-related fight between that woman and her partner, the injured party thus being a collateral casualty of alcohol-related domestic violence. The timing of these injuries in relation to drinking also suggests that precipitating factors might also include the neurobehavioural features of agitation and irritability associated with early withdrawal.

## Predisposing

As a consequence, predisposing factors must include the patterns of consumption and drinking histories of these older men which have been sufficient for the development of dependence. Associated with this are the abovementioned long histories of domestic violence, with the two oldest men injured by their partners having sustained numerous previous injuries requiring medical treatment. The three men with partners had been with those women for one, four and eight years. Regardless of duration, alcohol-associated instability appears to be typical suggesting limited capacity to address drinking as a causal factor and poor coping skills. This may in turn reflect the lack of opportunities for non-drinking activities which, necessarily, become further restricted as age and the consequences of heavy drinking compromise physical activity. It is possible that these cumulative physical consequences also inform the seeming gender reversal in vulnerability. While the drinking of males in this age group continues to place them in danger (as a result of their own behaviour and that of others who are drinking), they are less likely to be instigators. Indeed one of these men had taken to sleeping on the roof of his house when his partner began drinking in an attempt to avoid her predictable violence.

These individuals appear unable to modify their exposure to danger by altering their own or their partner's drinking. However, they also regularly return to situations in which that pattern is likely to occur or where danger is still imminent. Thus one man, having been attended for a facial injury, returned to be stabbed by his still intoxicated partner. As these events were all part of longstanding patterns, the lack of formal consequences from the police or the community probably contributes to an underlying expectancy that this pattern is the norm and will continue. Such fatalism is reinforced by the predictable cycles of crisis and calm in the community that parallel the regular or windfall availability of alcohol, and by similar cycles at the level of the family (it is noteworthy that children were present during several of these incidents and, probably, had witnessed the patterns recurring over time).

Underlying factors must also include those social circumstances which result in limited opportunities for developing coping skills other than aggression or avoidance, even with increasing age. The frequency and intensity of jealous fights suggests not only an underlying instability and uncertainty in relationships, but a chronicity to this situation.

## Response

These men each came to medical attention relatively quickly, the injuries not being of a serious nature. However, as with younger men, the response was in two cases compromised by the level of intoxication of the injured man. Furthermore, in the instance of injury as a bystander to a domestic argument, there was no attempt on the part of others present to render assistance suggesting the prioritisation of drinking and/or the ongoing domestic argument. While the police were involved in one instance (in which a stabbing occurred), there seems little to suggest that the intercession of police (or other formal agencies) is seen as having an effect beyond the immediate aftermath of conflict.

## Outcome

The most significant outcome in relation to these injuries, none of which were immediately life-threatening, was the lack of any change at the level of the individual, family or community, and seeming fatalism regarding the potential for such change. Furthermore, given that these older men each already had long histories of injuries and other consequences of alcohol abuse, the cumulative effect must increase their risk of future morbidity and/or of future injury.

# Part Three:

## Comparison of Injuries at Two Cape York Communities

### Introduction

Injury patterns at two Cape York communities were compared using clinic register data. Community A is small, remote, and has a canteen selling alcohol, while Community D is larger, is close to a major urban centre, and has no local canteen. Age-specific and overall rates of injury in each community were calculated, and the association between injuries and alcohol was explored.

Data from a complete medical record audit was available for Community A. The accuracy of the register data was established through comparison with the audit data.

### Methodology

Data was extracted from the daily clinic register at each community for the six month period January to June 1996. Clinic staff were responsible for recording details of each patient contact in this register, including reason for presentation, associated factors and management. We counted the total number of clinic visits for the period and for injuries noted age, sex, whether the presentation was the first for that injury, and whether alcohol was recorded as being associated with the injury. Only initial injury presentations at the clinic were included.

Total community populations were taken from clinic census data and were confirmed by the Cape York Health Council, however accurate age and sex demographics were not available. These have been estimated by applying the sex distribution for the entire peninsular region (ABS, 1986) and the age distribution of 5 Statistical Local Areas in the region (ABS, 1991) to the community total population figures. The estimated age and gender figures were used to calculate age and gender specific rates for each community.

A complete audit of all medical records at community A was performed for the period November 1995 to October 1996 and details of all identified injuries were noted. Audit data for the same six month period studied in the clinic register was used to compare the two data sources.

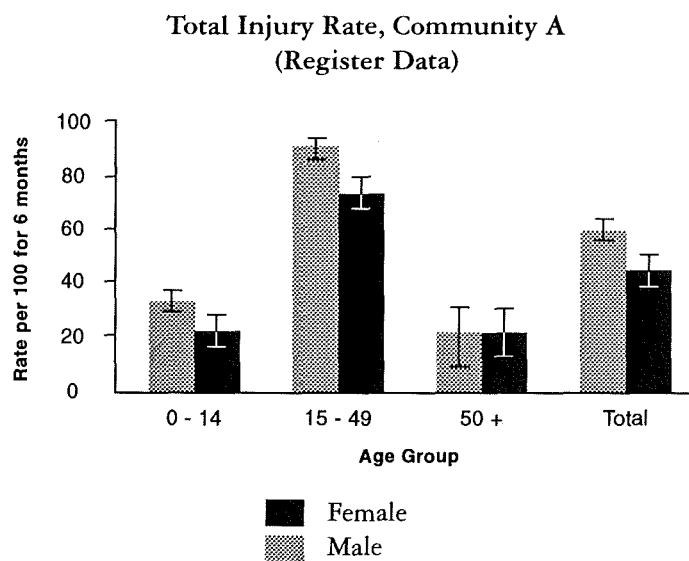
The 95% confidence intervals were calculated for all rates and proportions and are displayed as error bars in Figures 54 to 59.

### Results

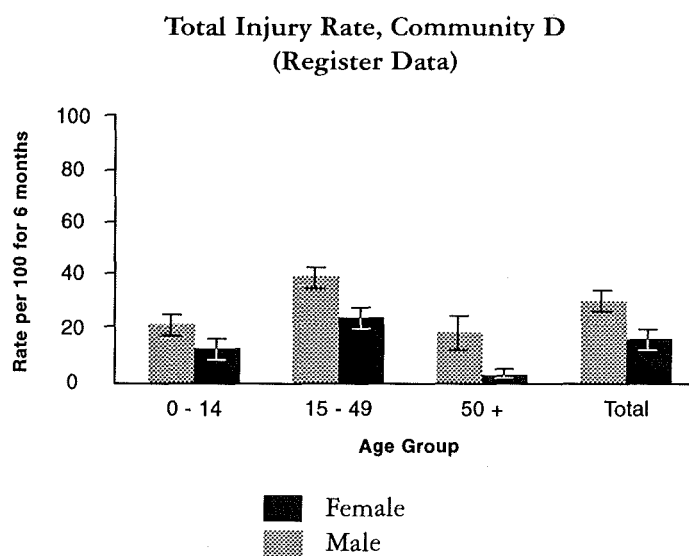
#### (a) Register Data

Injury rates were high for all age groups but were highest in the 15 to 49 year old groups in both communities (Figures 54 and 55). Injury rates were higher for males than females in all groups other than the over 50 year old group in Community A, where the rates were similar. The M:F ratio was 1.5:1 for the 0 to 14 year old groups in both communities, and for the 15 to 49 year old groups the ratio was 1.2:1 in Community A and 1.6:1 in Community D. Community A had approximately twice the total injury rate of Community D. The difference between communities was particularly marked for males and females aged 14 to 49 years.

**FIGURE 54**

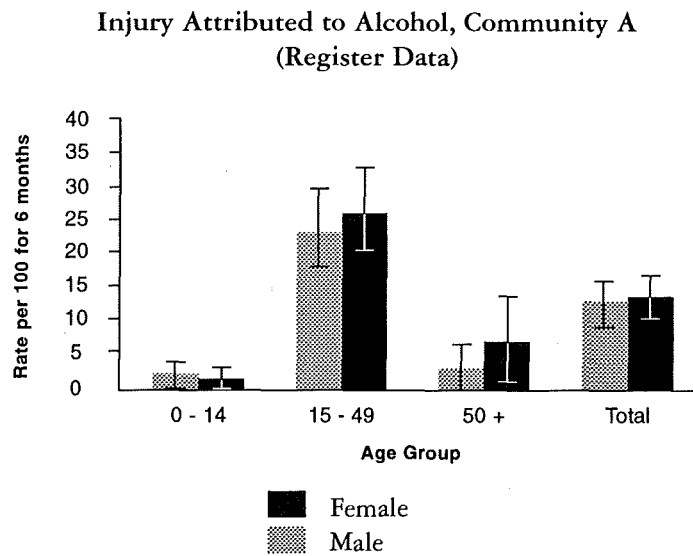


**FIGURE 55**

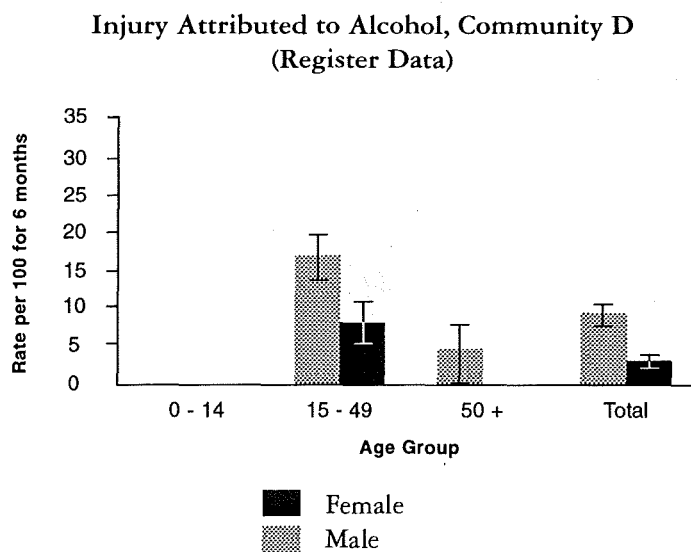


The rates for injuries attributed to alcohol (based on the register data) were higher in Community A than Community D for all age groups (Figures 56 and 57). The differences between communities were greatest for women aged 15 to 49 years and for women over the age of 50 years. The M:F ratio in the 15 to 49 year old group was 0.9:1 in Community A and 2.1:1 in Community D.

**FIGURE 56**



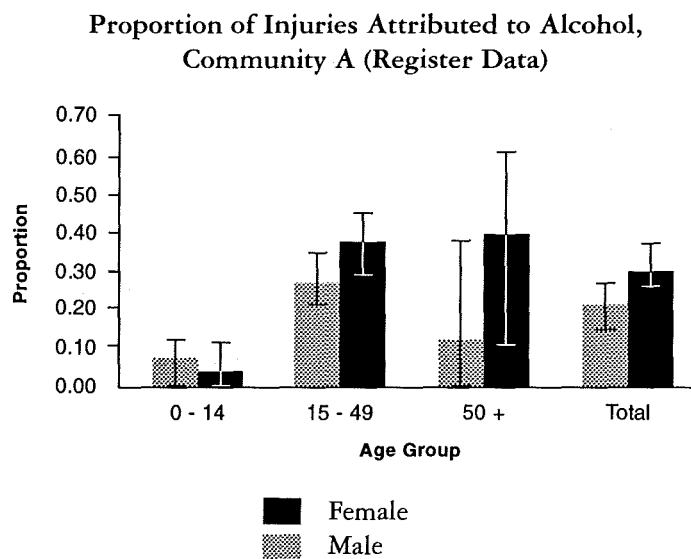
**FIGURE 57**



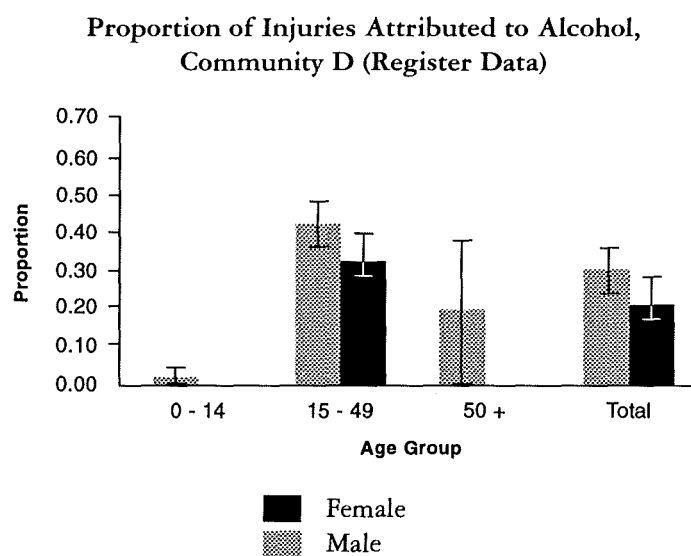
The proportion of injuries attributed to alcohol on the basis of the register data was similar for both communities (Figures 58 and 59). There was a trend suggesting that alcohol accounted for a greater proportion of injuries in women than in men for Community A, however the differences were not statistically significant.

The number of initial injury consultations as a proportion of total clinic consultations was higher in Community A (8.76%) than Community D (6.82%) ( $p < 0.05$ ). This underestimates the total burden of injury consultations as it does not include follow-up consultations for injuries but does include follow-up consultations for other conditions.

**FIGURE 58**



**FIGURE 59**

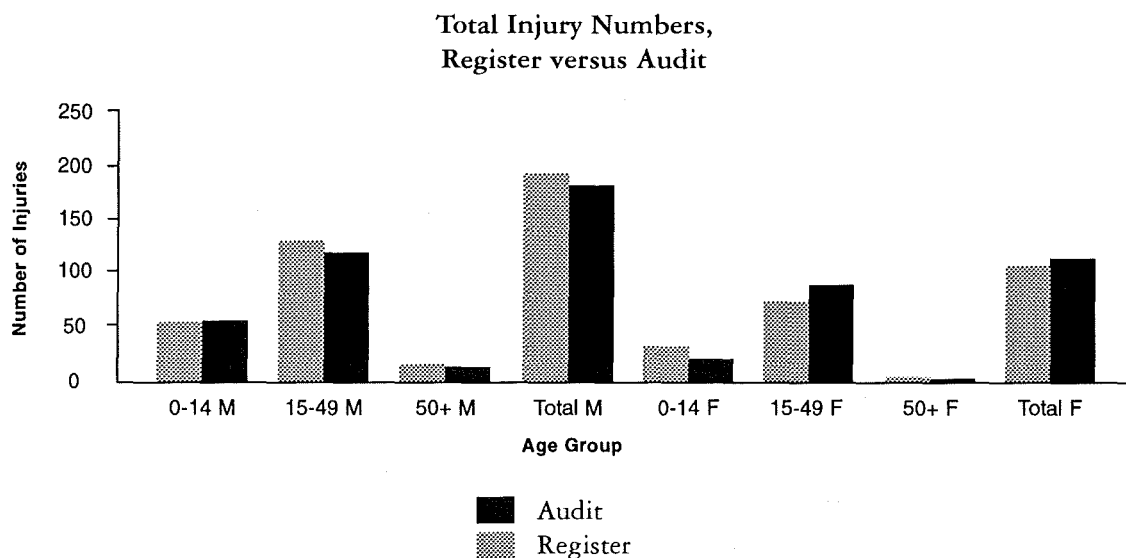


**(b) Audit Data**

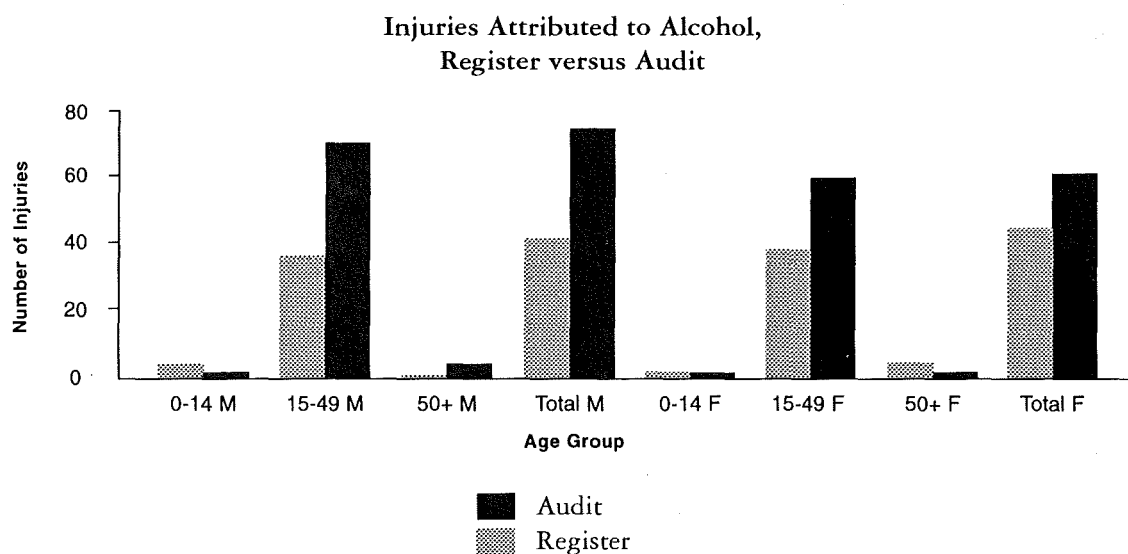
The audit recorded total injury numbers very similar to those from the register for Community A (Figure 60). The register noted only ten additional injuries for the period (331 vs 321). However, the audit recorded a greater number of injuries attributed to alcohol than the register. (Figure 61)



**FIGURE 60**



**FIGURE 61**



## Discussion

It is evident that injuries are a significant source of morbidity in both communities, particularly for young adults. There is, however, a striking difference in injury rates between the two, with total injury rates at Community A about twice those at Community D.

It is not possible to completely explain this difference with the data collected in this study, but alcohol is probably a significant contributing factor. Comparison of the register and audit data confirmed that, while the register accurately records total injury numbers, it is inaccurate in recording association with alcohol. The register failed to appropriately record approximately 50% of alcohol associated injuries. Thus the rates for injuries attributed to alcohol (Figure 56) and the proportion of injuries attributed to alcohol (Figure 58) that were based on register data significantly underestimate the true situation at Community A. Injuries attributed to alcohol

are therefore likely to account for much of the difference in injury rates between communities. There may be other factors that contribute to the difference in injury rates. Accurate socio-economic indices are not available, however Community A is in a remote location, has a local canteen, and is dependent on employment within the community. Community D is within 50km of a major urban centre and residents have opportunities arising from this proximity that include broader employment options. It does not have a local canteen. The communities are also in different health districts.

In addition to the difference in total injury rates, there were also considerable differences in the male to female injury rate ratios between communities, particularly for the 15 to 49 year old groups. Women in Community A experienced injuries at rates similar to those experienced by men in that community, and for injuries attributed to alcohol actually had a higher rate than the men. Alcohol thus poses a particular threat for women in Community A.

The under-reporting of alcohol association indicates the poor quality of some data recorded in the clinic register. If the clinic registers are to be used to accurately assess injuries at these communities it will be necessary to improve the accuracy and consistency of register data, particularly for injuries attributed to alcohol.

The register data available for this study was subject to a number of limitations in addition to inaccurate recording of alcohol association. It was based on details recorded by a variety of different staff over an extended period of time, it only documented injuries for which people attended the clinic and had their visit entered in the register, and injuries were not categorised by type or severity. There were also differences in the activities of clinic staff at the two communities. Community A staff often performed home visits, telephone consultations and health promotion activities for groups that were recorded in the clinic register. When identified, these entries were not included in the analysis. Similar activities were apparently uncommon in Community D. If there were significant numbers of such consultations at Community D they were not recognised, and this would have incorrectly decreased the proportion of total consultations that were injury related for that community.

The proximity of Community D to an urban centre with alcohol outlets and medical facilities also introduces a potential source of under-reporting. If alcohol related injuries in Community D residents occurred outside the community without involving the community clinic they were not recorded.

The issues raised by this study warrant additional research. Further study should aim to collect complete and accurate information on all injuries in the target communities, categorise these by type, severity and a broader range of possible aetiological factors, and examine other community variables that might influence injury hazard.

## Conclusions

There are two main conclusions from this study:

- (i) Total injury rates at Community A were twice those at Community D, and it is likely that alcohol attributed injuries account for much of this difference; and
- (ii) Clinic register data provided an accurate picture of total injury rates but significantly under-reported association with alcohol.

# Part Four:

## Emerging Issues

### Focus Groups

Focus groups were accessed in the communities from existing groups, e.g. Health Action Groups or Justice Groups, Prison Inmates, Women's Refuge Centre Workers, and the Community Councils (see examples, Appendix B). Often attendance at a focus group meeting would lead to further discussions with elders and other concerned community members at an individual level. (see Appendix C).

This allowed the impact of accidents and injuries on the community to be assessed, while promoting a general awareness in the communities of the value of the project. It also allowed for a closer relationship with Aboriginal people for the documenting of the relevant injuries. The community perspective generated from focus groups identified jealousy as the principal cause of person to person conflict. (Appendix B).

Focus groups identified that in some communities males were having difficulty in accepting the perceived freedom of their spouse/ girlfriend whilst they themselves were obligated to employment under the C.D.E.P. scheme. Focus groups also revealed that payback is an issue within communities. (Appendix B and C)

Concern was regularly expressed about the apparent inability of younger parents to care for their children. The responsibility of the care of the children was too often left to the older grandparents who in many cases were struggling with health problems themselves. This caused a breakdown in the family structure. (Appendix C1, and supported in case study themes.)

Persons returning from extended stays in prison have revealed the difficulties in their acceptance back into communities. They felt that while many community members were supportive of them, they were often victims of person to person conflict which regularly led to further prison terms. This conflict was often premeditated and provoked by elements in the community (both male and female) but always led to their persecution. They felt their inability to get work (C.D.E.P) for extended periods after their return also created tension.

Focus groups were very aware of the need for education as a means of overcoming many health issues.

Examples given included:

- **Counselling**

Focus groups in all communities have recognised the need for counselling. Instances of focus groups recognising the counselling needs of community members prior to serious injury, (including suicide) have been recorded. The lack of a support mechanism to assist these groups in addressing these issues has been identified.

- **Social Alternatives**

Focus groups identified the need for education to be undertaken among the very young in relation to social values. It was felt that younger people were not being offered alternatives, and were exposed to violence and alcohol as an accepted part of their lifestyle.

- **Payback**

The issue of payback as culturally acceptable was discussed on a number of occasions. It was felt that education into the use of meaningful mediation was required to overcome the sometimes violent outcomes. (Appendix C2)

## **Worker's Compensation**

An overall lack of awareness exists within Aboriginal Communities with respect to their rights under both Workers Compensation and Third Party Insurance. (Appendix B and Appendix case study D2) This lack of education is apparent throughout the communities and often at a senior decision making level.

- **Worker's Compensation**

This study has identified instances where the lack of knowledge in relation to workers compensation is affecting the health care of Aboriginal people. The lack of medical attention immediately after accidents, coupled with a loyalty to their employer (including C.D.E.P.) has resulted in long term health problems being inadequately attended to. Cultural issues relating to embarrassment and an acceptance of a disability have also been revealed. (Appendix D2)

The issue of re-employment under the C.D.E.P. scheme after injury, has also been identified as a major deterrent in Aboriginal workers seeking Worker's Compensation.

The large no-claim bonuses being offered to Aboriginal Community Councils are also a temptation to under-record workers compensation. Concerns in relation to under-recording, and the lack of verifiable statistical data for the funding of worker's compensation and workplace health and safety initiatives have been raised.

- **Third Party Insurance**

Aboriginal people are generally not aware of either third party or third party property insurance, its role, or their entitlements under the scheme. (Appendix B)

This study has identified an urgent need for education into these issues at all levels, including the cultural difficulties associated with claiming compensation. The possible need for litigation to be applied against a family and/or community member who may be the driver of the vehicle, is seen by many Aboriginal people as culturally inappropriate.

It has been further identified that the cost of Registration and Insurance being paid by many Aboriginal people, has never been identified to them in the context of their insurance entitlements.

## **Counselling Needs**

The lack of suitable community counselling services has been identified in most of these case studies. Counselling services and the need for a networking mechanism between these services and focus groups such as Justice and Health Action groups have been identified.

## **Infrastructure and Equipment**

Instances of inadequate equipment and problems with equipment maintenance have been identified within this study. Instances of patient and health worker safety compromise have been identified, recorded and observed. A lack of appropriate equipment, particularly associated with clinic pick-up vehicles, back-up vehicles, and night time call outs has been identified in case studies. In many cases, a lack of appropriate maintenance of vehicles and equipment which could seriously affect patient access and safety was also identified.

In some communities it appeared that a lack of a clear cut administrative responsibility had been partly responsible for the maintenance problem. However the equipment supplied was in many instances inadequate for the specific needs of the community.

# Appendixes

## Appendix A

### INJURY IN ABORIGINAL COMMUNITIES PROJECT CONSENT FORM AND INFORMATION FOR PARTICIPANTS

Many communities, families, and health councils in this area are worried about the large number of injuries and related deaths occurring in Aboriginal communities. This project is the result of meetings by the Cape York Health Council, The Tripartite Forum, and The Health Department to find out more about what causes injuries in communities and how these can be prevented.

This project is looking at the types and causes of injury in some Aboriginal communities in the Cape York and Cairns sectors which are of concern to families and the community. To do this we are looking at some injuries in detail to find out what were the causes of the injury, whether the response to that injury was quick and correct, the effect of that injury on the person injured and the family, and what might be done to stop a similar thing happening again.

You are invited to take part in this project by talking with the Project Officer about your, or your relatives injury. This involves talking about what lead up to the injury, what treatment you received from the health service, how well you recovered and if you or your family are still having problems. If you agree, the Project Officer may look in your medical record to check some clinical details. Everything you say will be confidential and the records of these interviews will be kept private. Your name/s and that of your community will not appear on any reports. You may withdraw from this study at any time.

#### CONSENT FORM

I, (name)..... agree to take part in this Injury Project by talking about my/my relative's injury. I agree that my medical records can be checked by the investigator only for the purposes of this injury event. I understand that I can withdraw from this study at any time and that all records of these interviews will be kept confidential.

Signature..... Date.....  
Witness..... Date.....

#### WITHDRAWAL OF CONSENT

I (name) ..... withdraw my consent to take part in this study.

Signature..... Date.....  
Witness..... Date.....

## Appendix B

### JUSTICE GROUP (Community B Focus Group Session)

Present: 13 people including 8 gentleman and 4 ladies and the Project Officer for the Accident & Injury Project.

The meeting commenced at 10.30 am and the Chairperson opened the meeting and invited the Project Officer to address the meeting.

An outline of the project was presented and the meeting then participated in addressing the problems associated with accidents and injuries in the community.

All persons present took part in the discussion and the following issues were identified.

- That although alcohol was a contributing factor in most of the injuries, the underlying problems that many of the community might be carrying inside them was a major issue and often the real cause of the injury.
- It was felt that some of these problems that the people are feeling when they drink may be a major cause of fighting. It was generally felt that some of these problems may be able to be addressed by the Justice Committee, and that the committee may be able to talk to the people who are having arguments before the fights start.

The members present then identified the following issues as major reasons why fighting and injuries are occurring in the community.

#### 1. Jealousy

The group spoke about jealousy in different forms, but which causes a number of fights after drinking. It was noted that the jealousy could involve, male to male, female to female or male against female, or female against male.

Reasons for the jealousy included male and female relationships, jealousy, clothes, cars or other issues. It was felt that the male/female, female/male jealousy was the most common.

Examples were given where females or males would get very jealous of their partners after a few drinks. This often led to fights both between the male and female and sometimes others.

#### 2. Payments of debts

It was shown that this often caused fights and injuries when the debts were not repaid for reasons such as they may not have the money when it is wanted or the debt may not be remembered if the borrowing took place when drinking. It was suggested that refusal to lend also caused conflict. Debts were not always money and could involve other goods.

#### 3. Payback

This was described as an issue where a person might be paid back for something they have done to someone else. This was described as a problem when the payback may start out as individuals, then it may involve families and sometimes even large sections of the community.

#### **4. Motor Vehicle Accidents**

Discussions were then held in relation to motor vehicle accidents and their effect on the people. It was found that Aboriginal people generally were not aware of their rights under third party insurance compensation. The project officer undertook to approach Queensland Transport for some easy to read literature on the subject and forward it to the justice committee.

#### **5. Problems Affecting the Community**

The Project Officer reported that he had talked to a lot of people who were hurting inside following accidents, injuries and other problems to their family or close friends. It was felt that these people needed someone to talk to so that they could handle their feelings better.

The Justice Committee felt that they could help support these people.

The Project Officer then left the meeting and advised the committee that he would report back to them on the type of injuries and accidents he was able to talk to people about. A discussion could then be held to allow for preventative measures to be discussed and try and stop many of the accidents occurring.

## Appendix C

### FOCUS GROUP C1 (Community B)

Discussions between two women (members of the Justice Group) and the Project Officer.

Concern was raised as to the very young children being exposed to alcohol and violence. It was identified that education of the younger generation was important to overcome the alcohol and violence problem.

The women expressed concern that little or no transport has been available to take the younger children out of the community to learn traditional values away from alcohol and violence. They identified that young people must be offered an alternative to their current lifestyle centering around a canteen.

Concern was also expressed towards many of the younger parents who are not looking after their families when alcohol is involved. The women were concerned that it may be too late to educate many of these younger people not to drink too much.

It was also felt that it was bad that many young children were seeing their parents fighting. The women said that this was once a happy community and it should be happy now. The women felt that the only time some parents got to see their children was on Sunday when the canteen was shut.

The Project Officer agreed to have further discussions with the women.

### FOCUS GROUP C2 (Community B)

Further discussions between an elderly member of the Justice Group and the Project Officer at the insistence of the Elder.

This gentleman wanted to identify the origin of payback.

He said that when he was a little boy the three local tribes were here and someone would have an argument over what someone had done or said. Someone might do something to one of the other tribe and they would payback by doing something to them.

The tribes would then meet down on the river (he asked would the Project Officer like to see the spot and he agreed).

He said he had seen one of these fights and everyone would have nulla nullas, boomerangs and spears and everyone was fighting.

After many were badly hurt everyone would sit around hugging and saying sorry and the payback would be over.

He felt that this cultural issue was still affecting many people and that education was needed to allow talks and counselling to overcome many arguments.



## Appendix D1

### COMMUNITY B CASE STUDY 1

Age: 27

Sex: Female

#### History

It appears this patient was living in a defacto relationship with the alleged perpetrator in Community B. They shared a premises in Community B with the father of the alleged perpetrator and a female relative of the patient.

#### **Record of interview with the patient and the Project Officer at Cairns Base Hospital.**

##### Statement by Patient

The patient stated she met the alleged perpetrator in Community A six years earlier. He did not drink much and their relationship was very good and they settled in Community B.

After about two years he started drinking more and would call her names and say that she was trying to be smarter than him.

He started to get violent and beat her.

When she would say that her family had been a loving family and that her father never beat her mother, he would reply that he often seen his father beat his mother and she (the patient) was no different.

The next year he broke her jaw and he left her and he went back to Community A for his brother's 21st birthday. She was pleased to see him go and he did not come back.

In April two years later, she came back to her father's funeral in Community B and he was nice to her and convinced her to stay.

In July that year he lacerated her nose with a knife and a month later, lacerated her shoulder with a knife leaving a large scar.

In June, one year later, he lacerated her head with a board. She told him he needed Psychiatric help and that as soon as she could she was leaving. She stated that he would show no violence when drinking with others but would come home angry and would kick in the door and attack her. He would often say that that was how his father treated his mother.

He would also say that he hated anyone who was not a full blooded Aboriginal which the patient felt was very strange.

She told him she was leaving to go back to Community A as soon as possible and she would try to get a job.

## Events leading up to the injury

### Statement by the patient

My boyfriend and his mates started drinking and smoking dope at about 5.30 pm on Friday. I was always worried when they used dope with alcohol as I had tried it once and I started shaking and talking strangely and that was what was happening with my boyfriend and his mates. Some friends had arrived from Community A so I returned home at about 8.30 pm to have a few beers with them. I then went to bed with my 4 year old child.

At about 7 am on I awoke to find myself being dragged off the bed by the hair onto the floor by my boyfriend where my shoulder hit very hard. I screamed "what are you doing."

He replied "you talked smart last night." He kept hitting me with a steel object.

Other people were there and I yelled "please help me this fella gona kill me," but no one came.

My child saw it all.

I passed out and that is the last thing I remember until Saturday about 1 o'clock when I asked for them to help me get to the clinic as I was very sick.

No one would help, they wanted to go to the sports that were on that weekend. It was early Sunday before I was well enough to get myself cleaned up to go to the clinic, they were still on the grog and dope and I could not get help and walked to the clinic by myself.

My cousin would not even help me but she showed me the steel object my boyfriend beat me with before she went to the sports.

I can't understand it in community A everyone helps but in community B everyone minds their own business.

I went back to the clinic on Monday for the change of dressings but woke up very sick on Tuesday

The patient was interviewed in the Cairns hospital by police and is apparently pressing charges against her boyfriend. He is 24 yrs old.

## Clinical Records

A Registered Nurse of the health clinic in Community B reported that at 9.50 am on a Sunday the patient arrived at the clinic for medical help.

She had a long crescent shaped head wound surrounded by a large amount of dried blood and in addition had a gouged wound in her left cheek and a small laceration above her left eyebrow. Her eyes were black and puffy and she could not remember what had happened. From her recollections of events leading up to the injury she felt it probably happened at about 10.30 am on Saturday (the previous day).

When she regained consciousness she felt very dizzy and thought she had lost a large amount of blood. She found that the others present were drunk and she went alone to the clinic.

She claimed that her female relative had told her that her boyfriend was affected with "grog" and had hit her with a steel object.

Three hours were needed to treat her wounds which included 13 sutures to the wound on the head. The cheek gouge could not be sutured without affecting the shape of her eye.

The Registered Nurse asked her to return for a check up the following day.

The police were contacted and interviewed the patient on the Sunday at 2.30 p.m.

The patient returned to the clinic on Monday at approximately 1pm and was attended by a registered nurse who redressed the suture line and the gouge in her cheek.

She arrived at the clinic at 9.50 am on the Tuesday accompanied by a health worker. She was attended to by a registered nurse who noted she was shaking, with perspiration to her upper lip and forehead, gross facial swelling and she was unable to open her eyes. Her suture line was infected with a collection of purulent ooze, and 2 sutures were removed from the suture line to allow drainage.

An area of dead tissue fell out of the wound on her cheek and her face was very puffy. She was administered with:

- IV Therapy
- IV Antibiotics
- IV Painkiller
- IV Anti nausea medication.

The Flying Doctor was notified and the patient was kept in a ward and evacuated to Cairns Base Hospital at 1555 hours.

Difficulties were observed in the operation of the stretcher by health workers. The Project Officer assisted in the evacuation of the patient.

A registered nurse advised that he had been unable to contact the police to advise them of the situation.

### **Information from a Health Worker**

Whilst attending the store during the Tuesday morning a health worker was contacted by the alleged perpetrator to say that the patient seemed to be very sick and would he take her to the clinic.

### **Interview with Community B Police**

The police advised that they had interviewed the patient but had not followed it up because they had been told by the family that she had gone back to Community A.

The police were surprised when the Project Officer informed them that she had been evacuated to the Cairns Base Hospital.

## **Appendix D2**

### **COMMUNITY A CASE STUDY 2**

Sex : Male

Age : 24

Time : AM

#### **Patient's Statement**

I am frightened that the doctor will not listen to me with my knee and I am embarrassed to come in as it only gets very sore sometimes.

Three years ago I worked on a station and I was getting on a horse to take some people riding (tourists) when the horse bucked me off and ran away. The tourists were already on their horses. I had hurt my knee but I hobbled after the horse and caught him and got on again and took the tourist out for 4 hours maybe.

When I came back my knee was very sore and was very big. My knee stayed swollen and after a couple of days I told my boss as I used to have trouble putting my trousers on. I asked the boss to take me to the doctor, but as we were very busy I said don't worry I will go to the doctor when I got back to Community A, but I never did.

My knee still gets sore and I sometimes get it swollen. This happens when I chase pigs or something as my knee will swell up and it get sore. It then feels funny and is not right.

I wanted to get an appointment with the doctor but felt embarrassed as it was maybe not swollen then.

Now I am worried that when I get old my leg will maybe get worse as it seems crooked and makes a grating sound when I bend it.

#### **Clinical Records**

These reveal a history of violence-related injuries but no leg injuries.

# References

- Alexander, K., (Ed.), (1990),  
*Aboriginal alcohol use and related problems: Report and Recommendation prepared by an Expert Working Group for the Royal Commission into Aboriginal Deaths in Custody.*  
Alcohol and Drug Foundation. Canberra.
- Hunter, E., Hall, W. and Spargo, R., (1991),  
*The distribution and correlates of alcohol consumption in a remote Aboriginal population.*  
Monograph No. 12, National Drug and Alcohol Research Centre,  
University of New South Wales, Sydney.
- National Health and Medical Research Council. (1987),  
*Is there a safe level of daily consumption of alcohol for men and women?*  
*Recommendations for responsible drinking behaviour.*  
Australian Government Printing Service, Canberra.