

# Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape

## Phase 4 Summary Report February/March 2015

Linda Mureithi<sup>1</sup>, Algernon Africa<sup>1</sup>, Nienke van Schaik<sup>1</sup>, Tracey Naledi<sup>2</sup>, Richard Matzopoulos<sup>3,4</sup> and René English<sup>1</sup>

June 2015

<sup>1</sup> Health Systems Trust

<sup>2</sup> Health Impact Assessment Unit, Provincial Government of the Western Cape

<sup>3</sup> University of Cape Town

<sup>4</sup> South African Medical Research Council



Report prepared for:

**Dr Anthony Hawkrige**  
Director: Health Impact Assessment Unit  
Western Cape Department of Health

**Dr Richard Matzopoulos**  
Principal Investigator IDRC Project  
Specialist Scientist SAMRC/UCT  
School of Public Health

Report prepared by:

**Health Systems Trust**  
34 Essex Terrace  
Westville 3630

Tel.: +27 (0)31 266 9090  
Fax: +27 (0)31 266 9199

***Suggested citation:***

Mureithi L, Africa A, Van Schaik N, Naledi T, Matzopoulos R, English R. Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape – Phase 4 Summary Report February/March 2015. Durban: Health Systems Trust; 2015.

***© Health Systems Trust (2015). All rights reserved.***

*The information contained in this publication may be freely distributed and reproduced, provided the source is acknowledged and the information is used for non-commercial purposes.*

## **Acknowledgments**

This work was jointly funded by the Health Impact Assessment Unit of the Western Cape Department of Health and with the aid of a grant from the International Development Research Centre, Ottawa, Canada. The authors thank the hospital, facility and emergency centre unit managers at the six facilities included in this rapid assessment for their time and co-operation, and for allowing us access to the facilities to conduct the study. We are also grateful to the facility staff members who tirelessly attended to those with injuries and co-operated graciously with the data capturers. In addition, we thank the Violence Prevention for Urban Upgrading team for providing the mapped sub-areas of Khayelitsha and Nyanga used in this study, as well as Mobenzi Researcher for assistance in developing the mobile version of the data-collection tool used.

## Table of contents

1. Introduction.....	1
2. Aims and objectives.....	1
3. Methodology.....	1
3.1 Interviews with injured patients .....	2
3.2 Emergency centre register data on all cases .....	2
4. Data analysis.....	2
5. Data quality issues .....	3
6. Findings.....	4
6.1 Total cases seen, by facility .....	5
6.2 Injury cases by facility.....	8
6.3 Age distribution of injuries.....	10
6.4 Cause of injury.....	10
6.4.1 Violent injuries.....	10
6.4.2 Transport-related injuries.....	15
6.4.3 Unintentional injuries .....	17
6.4.4 Self-harm injuries .....	20
7. Alcohol and drug use and injuries.....	22
8. Location of injuries.....	23
9. Summary.....	25
10. References.....	26
Appendix A: Data collection form.....	27
Appendix B: League table ranking specific cause of injury by age category .....	29
Appendix C: Comparison between 2012, 2013, 2014 and 2015 surveys .....	30

## List of tables

Table 1: Characteristics of total cases seen, by facility .....	5
Table 2: Proportion of injury and non-injury cases by facility, n (%) .....	6
Table 3: Characteristics of injury cases assessed, by facility .....	8
Table 4: Overview of main causes of injury .....	10
Table 5: Characteristics of violent injuries by gender.....	12
Table 6: Characteristics of transport-related injuries by gender .....	15
Table 7: Characteristics of unintentional injuries by gender .....	17
Table 8: Characteristics of self-harm injuries by gender .....	20
Table 9: Location of injury by area and sub-area.....	23
Table 10: League table showing leading specific causes of injury by age category .	29
Table 11: Proportion of injury and non-injury cases by facility – 2012, 2013, 2014 and 2015 surveys.....	30
Table 12: Proportion of injury cases by cause – 2012, 2013, 2014 and 2015 surveys .....	30
Table 13: Probable alcohol use by gender and cause of injury – 2012, 2013, 2014 and 2015 surveys .....	31

## List of figures

Figure 1: Flowchart of patients interviewed .....	4
Figure 2: Number of injury and non-injury cases by facility .....	6
Figure 3: Proportion of injury and non-injury cases presenting by day of week (%) ...	7
Figure 4: Age distribution of injuries by gender .....	10
Figure 5: Probable alcohol use and cause of injury among males .....	22
Figure 6: Probable alcohol use and cause of injury among females .....	22
Figure 7: Proportion of injury and non-injury cases by facility – 2012, 2013, 2014 and 2015 surveys.....	31

## List of abbreviations

DoB	date of birth
CFU	clinical forensic unit
CHC	community health centre
EC	emergency centre
GFJ	GF Jooste Hospital
HST	Health Systems Trust
ICU	intensive care unit
IDRC	International Development Research Centre
IPWG	Injury Prevention Work Group
KDH	Khayelitsha District Hospital
MM	Michael Mapongwana Community Health Centre
Perp.	perpetrator(s)
PoP	plaster of Paris
RA	rapid assessment
SAMRC	South African Medical Research Council
S.H.	self-harm
UCT	University of Cape Town
Viol.	violence
WC	Western Cape

## Definitions

The following definitions apply to the study form, given in Appendix A.

**Injury:** an injury case is defined as any patient presenting for a first presentation of an acute injury (within 24 hours of the injury).

**Non-injury:** a non-injury case is defined as any patient not presenting for a first presentation of an injury and includes: medical cases, surgical non-injury cases and injury cases presenting for follow-up of an acute injury (e.g. wound dressing, suture removal, PoP removal or check, x-ray, circulation check).

### Violence:

**Violent injuries:** violent injuries are defined as injuries resulting from the intentional use of physical force, threatened or actual, against another person, or against a group of people or a community.<sup>1</sup>

**Sharp object:** where the cause of the violent injury was as a result of sharp object such as a knife, blade or broken bottle.

**Blunt object:** when injury was inflicted with a blunt object and was not as a result of a push, kick or punch.

**Community assault:** where the reason for visit indicated community assault or if the reason was assault, and multiple community members were recorded as those responsible for the injury.

**Push, kick or punch:** this included injury cases that were reported or documented as assaults with no mention of an object being used.

**Burn:** where the reason for visit stated that an individual was purposefully burnt by another person, or if the injury was reported to be due to assault with a hot object or liquid or food. This was then classified as either violence due to fire burn or other burn.

**Human bite:** human bites were considered violent injuries.

**Violence unknown:** where the injury was classified as violent, but there was insufficient information to further sub-classify the injury into one of the other groups.

### Type of violence

**Rape or sexual assault:** this included sexual assault cases reviewed through retrospective folder reviews and the clinical forensic units (CFUs) at Khayelitsha District Hospital (KDH) and GF Jooste Hospital (GFJ). The number of cases may be higher than reported, as only cases that presented through these two units were reviewed.

**Child abuse:** where the injury was reported as being the result of a purposeful act of violence against a minor.

**Gang-related:** where the violence was reported to be the result of gang-related activities, whether as a victim or perpetrator.

**Crime-related:** where the injury was reported to be associated with a crime such as a mugging or robbery.

**Interpersonal violence:** when a violent injury did not fit any one of the first four types of violent injury, it was classified as being due to interpersonal violence.

**Self-harm:** injuries due to intentional self-harm. These can include methods such as sharp object, firearm, fire burn, jump, hanging and paraffin poisoning.

**Other poisoning:** where the reason stated was that the injury was an “overdose”; this includes those in which the substance was mentioned, as well as those in which no specific poisonous substance was reported.

**Unknown self-harm:** when the reason stated was that the injury was an “attempted suicide” or “parasuicide”, but no specific cause or method was reported.

**Other specific cause or method:** self-harm not falling into any of the available categories, with the option of specifying the reason.

**Unintentional:** non-transport-related unintentional injuries are classified as unintentional and include accidental burns. Various methods are listed in the form in Appendix A.

The following require additional explanation:

**Fall:** where the information stated that the injury was due to a fall. Falls are classified as fall on level, fall from height or fall on stairs.

**Other bite/sting:** where the injury was due to a bite by an animal other than a dog (e.g. snake bite, insect bite or spider bite).

**Other specific cause or method:** where the cause or method was accidental and did not fit into any of the other categories, cases were sub-classified as unintentional with the option of specifying the cause.

**Other poisoning:** where the reason indicated unintentional poisoning with a substance other than paraffin.

**Probable alcohol use:**

**Yes/suspected:** if the patient reported consuming alcohol or was deemed to be obviously under the influence of alcohol, as observed by the data collector or medical staff (or as recorded in the patient file).

**No:** if the patient denied consuming alcohol and was not deemed to be obviously under the influence of alcohol, as observed by the data collector or medical staff (or as recorded in the patient file).

**Unknown:** if the patient refused to answer or was unable to answer and was not deemed to be obviously under the influence of alcohol, as observed by the data collector or medical staff (or as recorded in the patient file), and/or there was no documentation relating to alcohol in the file.



**Probable drug use:**

***Yes/suspected:*** if the patient reported using drugs or was deemed to be obviously under the influence of drugs, as observed by the medical staff (or as recorded in the patient file).

***No:*** if the patient denied using drugs and was not deemed to be obviously under the influence of drugs, as observed by the medical staff (or as recorded in the patient file).

***Unknown:*** if the patient refused to answer or was unable to answer and was not deemed to be obviously under the influence of drugs, as observed by the medical staff (or as recorded in the patient file), and/or there was no documentation relating to drug use in the file.

## 1. Introduction

In 2012 Health Systems Trust (HST) conducted a rapid assessment (RA) to collect comprehensive information on injuries in order to determine high-risk population sub-groups and areas in Khayelitsha, Nyanga and Elsies River. These are three of the five high-violence communities identified by the Western Cape (WC) Provincial Government's Injury Prevention Work Group (IPWG) as requiring targeted injury prevention efforts. The RA revealed that much higher percentages of women and children suffer violent injuries (non-fatal) than are reflected in local mortality statistics, where transport-related injuries are the leading cause of fatal injury among females.<sup>2,3</sup> This initial RA highlighted the importance of facility-level data for monitoring injury morbidity and its value in informing health service planning, as well as for the development of targeted interventions. HST was subsequently requested to conduct repeat RAs in two of the aforementioned communities in order to monitor trends over time and evaluate the effectiveness of interventions, in addition to establishing the risk profile in these areas. The repeat surveillance also forms part of two International Development Research Centre (IDRC) funded studies: "Evaluating the effectiveness of urban upgrading for violence prevention in selected low-income communities in the Western Cape Province, South Africa" and "Evaluating the effectiveness of the Western Cape Liquor Act in Khayelitsha, a large low-income community in Cape Town, South Africa". This is the fourth in a series of six-monthly RAs to be conducted between September 2013 and October 2015.

## 2. Aims and objectives

The aims of this study are:

- to conduct an RA of injury morbidity presenting at district-level health services in six facilities in Khayelitsha and Nyanga, which are two of five previously identified high-violence communities in the WC Province; and
- to establish a risk profile of injuries presenting in these areas through identification of high-risk population sub-groups and high-risk areas for injury, as well as monitor trends over time and evaluate the effectiveness of interventions. The facilities included in this assessment comprise hospitals and community health centres (CHCs).

The objectives are:

- to collect detailed information (basic demographic data, triage code, cause, location, time, details of perpetrator, and injury type data) on each trauma case presenting at each of the six health facilities over a one-week period; and
- to establish the proportion of injuries in these areas associated with obvious alcohol and/or drug use.

## 3. Methodology

The six facilities included in this RA are:

- Khayelitsha District Hospital (KDH)
- Khayelitsha Site B CHC
- Michael Mapongwana (MM) CHC
- Gugulethu CHC

- Nyanga CHC
- Heideveld CHC<sup>a</sup>

### **3.1 Interviews with injured patients**

Basic demographic data were collected by trained data collectors 24 hours per day, and captured directly into an electronic standardised questionnaire (Appendix A) downloaded onto a mobile phone. Information was captured on all individuals seen in the Casualty Department/Emergency Centre (EC) from 07h00 on 26 February 2015 to 07h00 on 05 March 2015. Patients presenting with injuries were interviewed, where possible, to obtain further details on their injuries, such as location, alcohol use, and by whom they were injured, as well as the time at which the injury occurred. Informed consent was obtained prior to the interviews taking place. A waiver of consent was provided by the University of Cape Town Human Research and Ethics Committee for certain subsets of patients. These data were then collected either at the time of injury by data collectors using patient files (for those unable to consent due to severity of injury), or by a trained researcher retrospectively using registers and patient files. Data collection on sexual assault cases seen at the clinical forensic units (CFUs) during the same one-week period was also done through retrospective folder reviews. Due to the small number of injury cases seen at Nyanga CHC in the first RA, a decision was taken to conduct only retrospective folder reviews at this facility in subsequent RAs.

### **3.2 Emergency centre register data on all cases**

In addition to information on injuries collected via interviews, data on all non-injury cases seen in the EC during the same period (26 February to 5 March 2015), as captured in the EC register by healthcare staff, were captured onto the same database. The data capturers used the same electronic tool and mobile phones to capture data. This was done between 26 February and 20 March 2015. Information collected included basic demographic data (date of birth, gender), identifying particulars (name, folder number), date of visit to EC, triage code and reason for visit. Data capturers were given a list of all injury cases interviewed and already captured onto the database, and these cases were not recaptured. Where it was noted that an injury case had not been interviewed, these folders were requested for subsequent folder review.

## **4. Data analysis**

Data captured on the electronic database were exported as a Microsoft Excel file and were then imported into STATA version 12.0 (StataCorp, Texas, USA) for further analysis. During data cleaning, duplicates were identified and dropped. Where a patient was referred from one facility to another, only the initial visit at the first facility was included for the detailed analysis of injury data. Visits at other facilities were included in the total tally for each facility (see Tables 1 and 2) but not in subsequent analyses. Proportions were calculated for categorical variables. The t-test was used to test for significant differences between proportions calculated where appropriate. A further detailed analysis will be performed as part of the final report on completion of all five surveys.

---

<sup>a</sup> In the first two RAs, data collection occurred at GFJ Hospital. However, at the time of the third RA, GFJ Hospital was undergoing protracted restructuring changes, a process that started in October 2013. The emergency unit was relocated to Heideveld CHC, and all other hospital wards were moved to Mitchells Plain District Hospital. Data collection for this RA was therefore conducted at Heideveld CHC.

## 5. Data quality issues

In the first two RAs, data collection was done at GFJ Hospital. However, at the time of this fourth RA, GFJ Hospital was undergoing protracted restructuring changes, a process that started in October 2013. The emergency unit was relocated to Heideveld CHC, and all other hospital wards were moved to Mitchells Plain District Hospital. Data collection for the third and fourth RA was therefore conducted at Heideveld CHC.

In addition, polytrauma cases from GFJ Hospital's drainage area that would normally have been seen at this facility are referred directly to Groote Schuur Hospital. This may have resulted in fewer injury cases, particularly severe injuries, being seen at Heideveld CHC, as compared to those seen at GFJ Hospital during the initial study in 2012.

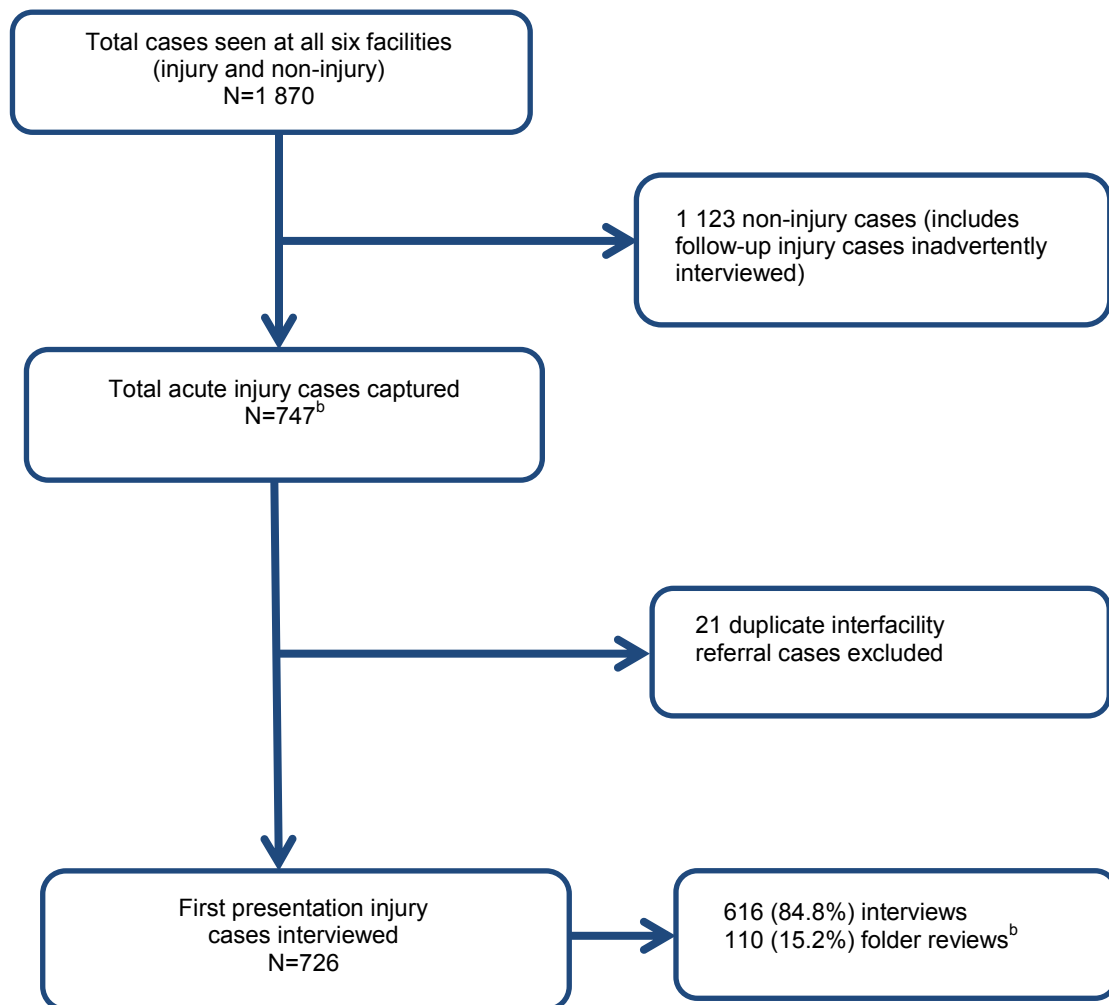
Where folder numbers were missing, data collectors were asked to use "9999"; unique numbers were then created and allocated for each case retrospectively during data cleaning and analysis.

Some cases were classified inappropriately: 26 unintentional injuries were misclassified as self-harm, and one transport-related and 10 violent injuries were misclassified as unintentional injuries. These cases were reclassified retrospectively, as appropriate, using the reason for visit captured in patient files.

## 6. Findings

Figure 1 gives an overview of patients seen at all six facilities – both non-injury and injury cases. Table 1 and Table 3 give an overview of the main characteristics of total cases and injury cases respectively, interviewed by facility.

**Figure 1: Flowchart of patients interviewed**



<sup>b</sup> Injury cases were assessed primarily via interview. Folder reviews were done for a subset of patients (see Section 3).

## 6.1 Total cases seen, by facility

A total of 1 870 cases were seen at all six facilities over the one-week period. Of these, 747 (39.9%) were injury cases. Table 1 shows the characteristics of all cases seen, by facility.

**Table 1: Characteristics of total cases seen, by facility**

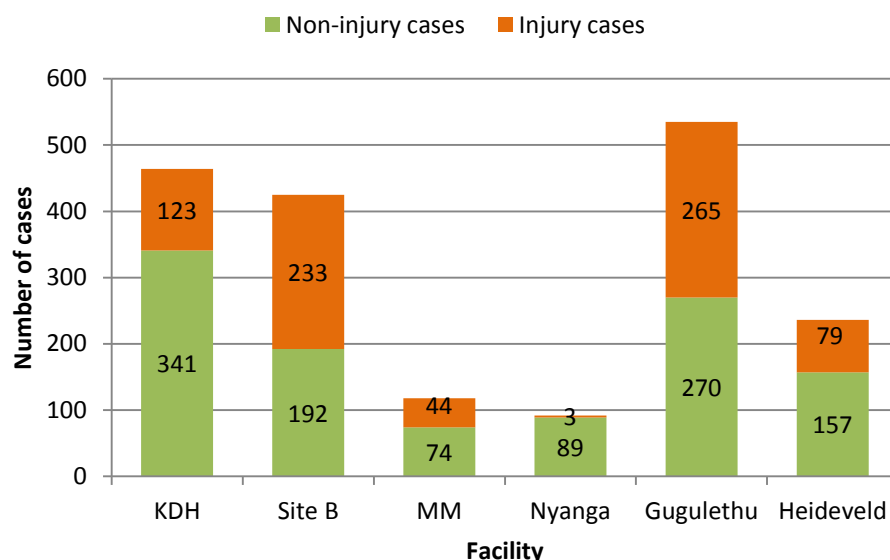
Baseline characteristics of total cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n= 464	Site B n= 425	Michael M n=118	Nyanga n= 92	Gugulethu n= 535	Heideveld n= 236	1 870
<b>Patient demographics</b>							
<i>Gender, n (%)</i>							
Male	223 (48.1)	233 (54.8)	44 (37.3)	47 (51.1)	298 (55.7)	107 (45.3)	952 (50.9)
Female	241 (51.9)	192 (45.2)	74 (62.7)	45 (48.9)	237 (44.3)	129 (54.7)	918 (49.1)
<i>Race, n (%)</i>							
Black	463 (99.8)	424 (99.8)	118 (100.0)	91 (98.9)	526 (98.3)	94 (39.8)	1 716 (91.7)
Coloured	1 (0.2)	1 (0.2)	0 (0)	1 (1.1)	9 (1.7)	141 (59.8)	153 (8.2)
Asian	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.4)	1 (0.1)
White	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<i>Age group, n (%)</i>							
<1	16 (3.5)	13 (3.1)	8 (6.8)	0 (0)	18 (3.4)	0 (0)	55 (2.9)
1-4	15 (3.2)	40 (9.4)	10 (8.5)	2 (2.2)	48 (8.9)	4 (1.7)	119 (6.4)
5-9	5 (1.1)	18 (4.2)	12 (10.2)	1 (1.1)	41 (7.7)	7 (3.0)	84 (4.5)
10-14	13 (2.8)	26 (6.1)	10 (8.5)	5 (5.4)	21 (3.9)	9 (3.8)	84 (4.5)
15-19	29 (6.3)	31 (7.3)	6 (5.0)	4 (4.5)	34 (6.4)	18 (7.6)	122 (6.5)
20-24	51 (10.9)	53 (12.5)	16 (13.6)	11 (11.9)	57 (10.7)	27 (11.4)	215 (11.5)
25-34	156 (33.6)	127 (29.9)	10 (8.5)	31 (33.7)	131 (24.5)	41 (17.4)	496 (26.5)
35-44	81 (17.5)	60 (14.1)	14 (11.8)	9 (9.8)	71 (13.3)	37 (15.7)	272 (14.6)
45-54	49 (10.6)	34 (8)	17 (14.4)	7 (7.6)	59 (11.1)	40 (17.0)	206 (11.0)
55-64	26 (5.6)	12 (2.8)	7 (5.9)	11 (11.9)	25 (4.7)	22 (9.3)	103 (5.5)
>65	23 (4.9)	11 (2.6)	8 (6.8)	11 (11.9)	29 (5.4)	31 (13.1)	114 (6.0)
Unknown age	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.1)
<b>Triage code, n (%)</b>							
Red	66 (14.2)	4 (0.9)	0 (0)	0 (0)	14 (2.6)	10 (4.2)	94 (5.0)
Orange	29 (6.2)	142 (33.4)	4 (3.4)	1 (1.1)	135 (25.2)	71 (30.1)	382 (20.4)
Yellow	327 (70.5)	274 (64.5)	87 (73.7)	1 (1.1)	292 (54.5)	86 (36.4)	1067 (57.1)
Green	31 (6.7)	5 (1.2)	27 (22.9)	0 (0)	88 (16.5)	15 (6.4)	166 (8.9)
Blue	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.2)	0 (0)	1 (0.1)
Not recorded	11 (2.4)	0 (0)	0 (0)	90 (97.8)	5 (0.9)	54 (22.9)	160 (8.5)
<b>Day of week, n (%)</b>							
Monday	83 (17.9)	53 (12.5)	29 (24.6)	22 (23.9)	57 (10.6)	41 (17.4)	285 (15.2)
Tuesday	70 (15.1)	47 (11.1)	27 (22.9)	13 (14.1)	82 (15.3)	34 (14.4)	273 (14.6)
Wednesday	59 (12.7)	38 (8.9)	21 (17.8)	17 (18.5)	57 (10.6)	3 (1.3)	195 (10.4)
Thursday	48 (10.3)	33 (7.8)	24 (20.3)	15 (16.3)	74 (13.8)	37 (15.7)	231 (12.4)
Friday	66 (14.2)	68 (16.0)	17 (14.4)	25 (27.2)	56 (10.5)	42 (17.8)	274 (14.7)
Saturday	69 (14.9)	97 (22.8)	0 (0)	0 (0)	93 (17.4)	34 (14.4)	293 (15.7)
Sunday	69 (14.9)	89 (20.9)	0 (0)	0 (0)	116 (21.7)	45 (19.1)	319 (17.0)

Just over a half of all EC visits (57.1%) were triaged yellow (and therefore non-urgent) and a further 20.4% were triaged orange. In 8.5% of all cases, the triage code could not be determined from the information available in either the EC register or the patient notes. Table 2 and Figure 2 show the distribution of injury and non-injury cases, by facility. The proportion of injury cases varied from 3.3% at Nyanga CHC<sup>c</sup> to 54.8% at Site B CHC. Although Gugulethu CHC saw the highest number of cases overall and the highest absolute number of injury cases, Site B CHC saw the highest proportion of injury cases.

**Table 2: Proportion of injury and non-injury cases by facility, n (%)**

Facility	Injury cases	Non-injury cases	Total cases
KDH	123 (26.5)	341 (73.5)	464 (100.0)
Site B	233 (54.8)	192 (45.2)	425 (100.0)
MM	44 (37.3)	74 (62.7)	118 (100.0)
Gugulethu	265 (49.5)	270 (50.5)	535 (100.0)
Heideveld	79 (33.5)	157 (66.5)	236 (100.0)
Nyanga	3 (3.3)	89 (96.7)	92 (100.0)
<b>Total</b>	<b>747 (39.9)</b>	<b>1 123 (60.1)</b>	<b>1 870 (100.0)</b>

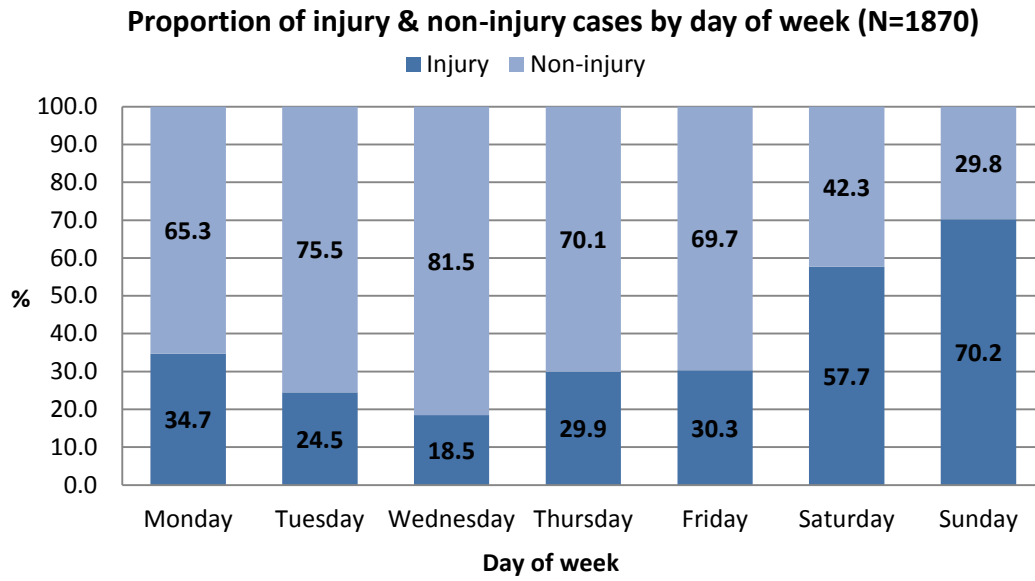
**Figure 2: Number of injury and non-injury cases by facility**



Injury cases presenting to facilities increased sharply towards the end of the week, peaking on Sunday when 70.2% of all cases seen were injuries (see Figure 3).

<sup>c</sup> Nyanga and Michael Mapongwana CHCs are 12-hour facilities and are closed during the weekend. As such, a much lower proportion of acute injuries present to these facilities.

**Figure 3: Proportion of injury and non-injury cases presenting by day of week (%)**





## 6.2 Injury cases by facility

A total of 747 injury cases were interviewed during the study period. As in the previous three surveys, Gugulethu CHC saw the highest absolute number of injuries (265 cases) (see Table 3.) Overall, males accounted for the majority of injury cases (63.1%). Most injuries occurred on Sunday (29.3%) and Saturday (25.3%). Over a half of all injuries were triaged yellow (54.6%), and a further 32.3% were triaged orange. KDH had the highest proportion of injury cases triaged red (21.9%). Only 2.5% of cases had no triage code recorded. With regard to time of injury, 34.3% of injuries were reported to have occurred between 19h00 (7 p.m.) and 01h00 (1 a.m.), and a further 27.9% between 13h00 (1 p.m.) and 19h00 (7 p.m.). With regard to place or scene of injury, 33.2% were reported to have occurred in the home, 24.8% on a highway, street or road, and 18.6% in a shebeen, bar or nightclub. Violence accounted for 57.6% of injuries overall; however, KDH saw a notably higher proportion of injuries than did the other five facilities.

**Table 3: Characteristics of injury cases assessed, by facility**

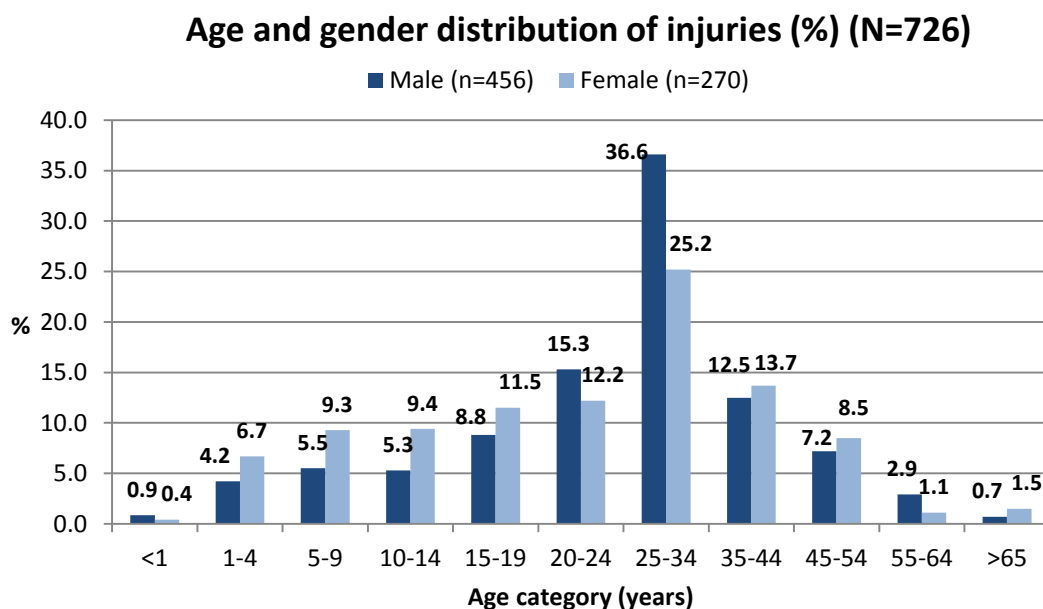
Characteristics of injury cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n=123	Site B n=233	Michael M n=44	Nyanga n=2	Gugulethu n=265	Heideveld n=79	N=747
<b>Patient demographics</b>							
<i>Gender, n (%)</i>							
Male	90 (73.2)	148 (63.5)	17 (38.6)	2 (66.7)	172 (64.9)	42 (53.2)	471 (63.1)
Female	33 (26.8)	85 (36.5)	27 (61.4)	1 (33.3)	93 (35.1)	37 (46.8)	276 (36.9)
<i>Race, n (%)</i>							
Black	123 (100)	232 (99.6)	44 (100.0)	3 (100.0)	259 (97.4)	29 (36.7)	690 (92.4)
Coloured	0 (0)	1 (0.4)	0 (0)	0 (0)	6 (2.3)	49 (62.0)	56 (7.5)
Asian	0 (0)	0	0 (0)	0 (0)	0 (0)	1 (1.3)	1 (0.1)
White	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<i>Age group, n (%)</i>							
<1	0 (0)	2 (0.1)	0 (0)	0 (0)	3 (1.1)	0 (0)	5 (0.7)
1-4	3 (2.4)	13 (5.6)	4 (9.1)	0 (0)	15 (5.7)	2 (2.5)	37 (4.9)
5-9	2 (1.6)	13 (5.6)	5 (11.4)	1 (33.3)	26 (9.8)	4 (5.1)	51 (6.8)
10-14	6 (4.9)	22 (9.4)	5 (11.4)	0 (0)	12 (4.6)	6 (7.6)	51 (6.8)
15-19	13 (10.6)	19 (8.1)	3 (6.8)	0 (0)	24 (9.1)	15 (18.9)	74 (9.9)
20-24	22 (17.9)	34 (14.6)	10 (22.7)	0 (0)	31 (11.7)	9 (11.4)	106 (14.2)
25-34	55 (44.7)	79 (33.9)	6 (13.6)	2 (66.7)	80 (30.3)	23 (29.1)	245 (32.8)
35-44	14 (11.4)	26 (11.2)	7 (15.9)	0 (0)	38 (14.4)	10 (12.7)	95 (12.7)
45-54	6 (4.9)	18 (7.7)	3 (6.8)	0 (0)	26 (9.9)	5 (6.3)	58 (7.8)
55-64	2 (1.6)	4 (1.7)	1 (2.3)	0 (0)	6 (2.3)	4 (5.1)	17 (2.3)
>65	0 (0)	3 (1.3)	0 (0)	0 (0)	3 (1.1)	1 (1.3)	7 (0.9)
unknown	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.4)	0 (0)	1 (0.1)
<b>Day of week, n (%)</b>							
Monday	14 (11.4)	29 (12.4)	7 (15.9)	0 (0)	35 (13.2)	11 (13.9)	96 (12.8)
Tuesday	5 (4.1)	16 (6.9)	7 (15.9)	1 (33.3)	25 (9.4)	5 (6.3)	59 (7.9)
Wednesday	8 (6.5)	11 (4.7)	5 (11.3)	0 (0)	10 (3.8)	1 (1.2)	35 (4.7)
Thursday	11 (8.9)	15 (6.4)	8 (18.2)	0 (0)	27 (10.2)	7 (8.9)	68 (9.1)
Friday	12 (9.8)	33 (14.2)	5 (11.4)	2 (66.7)	19 (7.2)	10 (12.7)	81 (10.8)
Saturday	28 (22.8)	66 (28.3)	4 (9.1)	0 (0)	70 (26.4)	21 (26.6)	189 (25.3)
Sunday	45 (36.6)	63 (27.0)	8 (18.2)	0 (0)	79 (29.8)	24 (30.4)	219 (29.3)
<b>Triage code, n (%)</b>							
Red	27 (21.9)	4 (1.7)	0 (0)	0 (0)	8 (3.0)	8 (10.1)	47 (6.3)
Orange	20 (16.3)	137 (58.8)	4 (9.1)	1 (33.3)	63 (23.8)	16 (20.3)	241 (32.3)
Yellow	56 (45.5)	89 (38.2)	38 (86.4)	1 (33.3)	186 (70.2)	38 (48.1)	408 (54.6)
Green	13 (10.6)	3 (1.3)	2 (4.5)	0 (0)	6 (2.3)	8 (10.1)	32 (4.3)
Blue	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Unknown	7 (5.7)	0 (0)	0 (0)	1 (33.3)	2 (0.1)	9 (11.4)	19 (2.5)

Characteristics of injury cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n=123	Site B n=233	Michael M n=44	Nyanga n=2	Gugulethu n=265	Heideveld n=79	N=747
<b>Alcohol, n (%)</b>							
Yes/Suspected	47 (38.2)	98 (42.1)	7 (15.9)	2 (66.7)	140 (52.8)	21 (26.6)	315 (42.1)
No	35 (28.5)	106 (45.5)	37 (84.1)	1 (33.3)	119 (44.9)	56 (70.9)	354 (47.4)
Unknown	41 (33.3)	29 (12.5)	0 (0)	0 (0)	6 (2.3)	2 (2.5)	78 (10.4)
<b>Drugs, n (%)</b>							
Yes/Suspected	2 (1.6)	49 (21.0)	1 (2.3)	1 (33.3)	62 (23.4)	9 (11.4)	124 (16.6)
No	53 (43.1)	146 (62.7)	43 (97.7)	2 (66.7)	188 (70.9)	67 (84.8)	499 (66.8)
Unknown	68 (55.3)	38 (16.3)	0 (0)	0 (0)	15 (5.7)	3 (3.8)	124 (16.6)
<b>Cause of injury, n (%)</b>							
Violence	88 (71.5)	140 (60.1)	13 (29.6)	1 (33.3)	143 (54.0)	45 (57.0)	430 (57.6)
Transport	19 (15.5)	20 (8.6)	5 (11.4)	1 (33.3)	47 (17.7)	5 (6.3)	97 (12.9)
Unintentional	10 (8.1)	70 (30.0)	26 (59.1)	1 (33.3)	68 (25.7)	25 (31.6)	200 (26.8)
Self-harm	6 (4.9)	3 (1.3)	0 (0)	0 (0)	7 (2.6)	4 (5.1)	20 (2.7)
<b>Time of injury, n (%)</b>							
7am- 1pm	24 (19.5)	53 (22.8)	16 (36.4)	0 (0)	74 (28.0)	9 (11.4)	176 (23.6)
1pm-7pm	24 (19.5)	71 (30.5)	15 (34.1)	1 (33.3)	69 (26.0)	29 (36.7)	209 (27.9)
7pm-1am	41 (33.3)	84 (36.0)	11 (25.0)	2 (66.7)	87 (32.8)	31 (39.2)	256 (34.3)
1am-7am	34 (27.7)	25 (10.7)	2 (4.5)	0 (0)	35 (13.2)	10 (12.7)	106 (14.2)
<b>Place or scene of injury, n(%)</b>							
Home (incl. yard)	23 (18.7)	98 (42.1)	10 (22.7)	1 (33.3)	85 (32.1)	31 (39.2)	248 (33.2)
School (incl. crèche)	1 (0.8)	4 (1.7)	4 (9.1)	1 (33.3)	13 (4.9)	1 (1.3)	24 (3.2)
Shebeen, bar or nightclub	32 (26.0)	39 (16.7)	4 (9.1)	0 (0)	55 (20.7)	9 (11.4)	139 (18.6)
Highway, street or road	46 (37.4)	41 (17.6)	14 (31.8)	0 (0)	62 (23.4)	22 (27.8)	185 (24.8)
Public transport area	4 (3.3)	8 (3.4)	4 (9.1)	1 (33.3)	24 (9.1)	3 (3.8)	44 (5.9)
Open field	3 (2.4)	6 (2.6)	1 (2.3)	0 (0)	8 (3.0)	2 (2.5)	20 (2.7)
Commercial area (e.g. shopping centre)	0 (0)	17 (7.3)	0 (0)	0 (0)	3 (1.1)	0 (0)	20 (2.7)
Construction or industrial area	0 (0)	0 (0)	2 (4.5)	0 (0)	2 (0.8)	0 (0)	4 (0.5)
Sports area (e.g. soccer field)	0 (0)	13 (5.6)	3 (6.8)	0 (0)	4 (1.5)	1 (1.3)	21 (2.8)
Other	3 (2.4)	4 (1.7)	2 (4.6)	0 (0)	5 (1.9)	6 (7.6)	20 (2.7)
Unknown	11 (9.0)	3 (1.3)	0 (0)	0 (0)	5 (1.5)	4 (5.1)	22 (2.9)
<b>Activity at time of injury, n(%)</b>							
Leisure	61 (49.6)	132 (56.7)	9 (20.5)	0 (0)	116 (43.8)	35 (44.3)	353 (47.2)
Working	3 (2.4)	11 (4.7)	7 (15.9)	1 (33.3)	46 (17.4)	6 (7.6)	74 (9.9)
Travelling	39 (31.7)	29 (12.4)	15 (34.1)	1 (33.3)	44 (16.6)	18 (22.8)	146 (19.5)
Education	0 (0)	1 (0.4)	4 (9.1)	1 (33.3)	3 (1.1)	0 (0)	9 (1.2)
Playing sport	0 (0)	23 (10.0)	4 (9.1)	0 (0)	28 (10.5)	3 (3.8)	58 (7.8)
Other	7 (5.7)	29 (12.4)	5 (11.4)	0 (0)	24 (9.1)	14 (17.7)	79 (10.6)
Unknown	13 (10.6)	8 (3.4)	0 (0)	0 (0)	4 (1.5)	3 (3.8)	29 (3.9)
<b>Placement, n(%)</b>							
Discharged	28 (22.8)	95 (40.8)	34 (77.3)	3 (100)	174 (65.7)	39 (49.3)	373 (49.9)
Admitted to ward	29 (23.6)	75 (32.2)	0 (0)	0 (0)	9 (3.4)	11 (13.9)	124 (16.6)
Admitted to ICU	6 (4.9)	3 (1.3)	0 (0)	0 (0)	0 (0)	0 (0)	9 (1.2)
Died	1 (0.8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.1)
Absconded	2 (1.6)	0 (0)	0 (0)	0 (0)	2 (0.8)	0 (0)	4 (0.5)
Referred	0 (0)	4 (1.7)	0 (0)	0 (0)	0 (0)	10(12.7)	14 (1.9)
Transferred	4 (3.2)	4(1.7)	10 (22.7)	0 (0)	7 (2.6)	6 (7.6)	31 (4.2)
Information not available at time of interview	50 (40.7)	52 (22.3)	0 (0)	0 (0)	71 (26.8)	4 (5.1)	177 (23.7)
Unknown	3 (2.4)	0 (0)	0 (0)	0 (0)	2 (0.7)	9 (11.4)	14 (1.9)

### 6.3 Age distribution of injuries

The majority of injuries occurred in the 15- to 44-year age group among males (73.2%) and females (62.6%). For both genders, the 25- to 34-year age group was the most affected (see Figure 4).

Figure 4: Age distribution of injuries by gender<sup>d</sup>



### 6.4 Cause of injury

Overall, 726 first-presentation injury cases were assessed. Of these, 57.0% occurred as a result of violence, 27.3% through unintentional causes, and 13.1% being transport-related. Only 2.6% were due to self-harm (see Table 4). For ranking of specific causes of injuries by age category, see Table 10 in Appendix B.

Table 4: Overview of main causes of injury

Cause of injury	n (%)
Violence	414 (57.0)
Transport	95 (13.1)
Unintentional	198 (27.3)
Self-harm	19 (2.6)
<b>Total</b>	<b>726 (100.0)<sup>e</sup></b>

#### 6.4.1 Violent injuries

Table 5 presents an overview of the characteristics of violent injuries by gender. Of the 414 violent injury cases reported, the majority (73.2%) were males. Most violent injuries were triaged yellow (53.4%) and occurred on Sunday (36.9%) and Saturday (25.6%). The most common specific method reported was sharp object, representing 59.2% overall. Among males, sharp object (68.7%) was the leading specific method

<sup>d</sup> Excludes one case in which the age was not established.

<sup>e</sup> This total number of injuries excludes 18 duplicate patients who were referred from one study facility to another. Only the initial presentation is included.

of violent injury, followed by blunt object (13.5%) and push/kick/punch (9.9%). Unlike in the previous three RAs where physical assault (push/kick/punch) was the leading specific method of violent injury among females, sharp object (33.3%) was the leading specific method reported, followed by push/kick/punch (28.8%) and blunt object (25.2%). Crime-related violence (47.9%) continues to be the most common type of violence reported among males, followed by interpersonal (20.5%) and gang-related violence (19.5%). Among females, interpersonal and crime-related violence were the leading types of violence (44.2% and 18.0% respectively). Sexual violence accounted for 13.5% (15 cases) of violent injuries among women compared to 0.7% (two cases) among men.

The majority of perpetrators were reported to be male (80.2%). As in previous RAs, the most commonly reported type of perpetrator was a community member: 28.2% overall, 33.0% among males and 15.3% among females. A spouse or partner was reported to be the perpetrator in 29.7% of violent injuries among women. The majority of women were injured by one perpetrator (78.4%). Among men however, despite 29.4% overall being injured by one perpetrator, 37.9% reported being assaulted by three or more perpetrators. This is in keeping with findings from the three previous surveys.<sup>4-6</sup>

Overall, the most common places where violent injuries occurred were the shebeen/bar/nightclub (30.9%), home (29.2%) and highway/street/road (25.4%). As in the previous RA, over half (53.2%) of females reported having sustained violent injuries within the home. Alcohol use was reported or suspected in 61.6% of all violent injuries (65.0% in males versus 52.3% in females). Drug use was either reported or suspected in 23.4% of violent injuries (26.7% in males versus 14.4% in females).

**Table 5: Characteristics of violent injuries by gender**

Characteristics of violent injuries by gender			
	Male, n (%) n= 303	Female, n (%) n=111	Total, n (%) N=414
<b>Age category, n (%)</b>			
<1	0 (0)	0 (0)	0 (0)
1-4	0 (0)	3 (2.7)	3 (0.7)
5-9	4 (1.3)	4 (3.6)	8 (2.0)
10-14	9 (2.9)	4 (3.6)	13 (3.1)
15-19	25 (8.3)	14 (12.6)	39 (9.4)
20-24	59 (19.5)	16 (14.4)	75 (18.1)
25-34	130 (42.9)	43 (38.7)	173 (42.0)
35-44	42 (13.9)	16 (14.4)	58 (14.0)
45-54	26 (8.6)	11 (10.0)	37 (8.9)
55-64	5 (1.7)	0 (0)	5 (1.2)
>65	3 (0.9)	0 (0)	3 (0.7)
<b>Triage, n (%)</b>			
Red	25 (8.3)	2 (1.8)	27 (6.5)
Orange	102 (33.7)	28 (25.2)	130 (31.4)
Yellow	159 (52.5)	62 (55.9)	221 (53.4)
Green	14 (4.6)	5 (4.5)	19 (4.6)
Blue	0 (0)	0 (0)	0 (0)
Unknown	3 (0.9)	14 (12.6)	17 (4.1)
<b>Day of the week, n (%)</b>			
Monday	34 (11.2)	17 (15.3)	51 (12.3)
Tuesday	21 (6.9)	7 (6.3)	28 (6.8)
Wednesday	5 (1.7)	7 (6.3)	12 (2.9)
Thursday	17 (5.6)	6 (5.4)	23 (5.6)
Friday	29 (9.6)	12 (10.9)	41 (9.9)
Saturday	82 (27.1)	24 (21.6)	106 (25.6)
Sunday	115 (37.9)	38 (34.2)	153 (36.9)
<b>Time, n (%)</b>			
7am-1pm	54 (17.8)	28 (25.2)	82 (19.8)
1pm-7pm	54 (17.8)	23 (20.7)	77 (18.6)
7pm-1am	130 (42.9)	46 (41.5)	176 (42.5)
1am-7am	65 (21.5)	14 (12.6)	79 (19.1)
<b>Specific cause, n (%)</b>			
Sharp object	208 (68.7)	37 (33.3)	245 (59.2)
Blunt object	41 (13.5)	28 (25.2)	69 (16.7)
Firearm	13 (4.2)	2 (1.8)	15 (3.6)
Push/kick/punch	30 (9.9)	32 (28.8)	62 (15.0)
Human bite	0 (0)	4 (3.6)	4 (1.0)
Choking	0 (0)	1 (1.0)	1 (0.2)
Other burn	2 (0.7)	0 (0)	2 (0.5)
Other	5 (1.7)	3 (2.7)	8 (1.9)
Unknown	4 (1.3)	4 (3.6)	8 (1.9)

<b>Characteristics of violent injuries by gender</b>			
	<b>Male, n (%)</b> n= 303	<b>Female, n (%)</b> n=111	<b>Total, n (%)</b> N=414
<b>Type of violence, n (%)</b>			
Rape/ sexual	2 (0.7)	15 (13.5)	17 (4.1)
Child abuse	0 (0.0)	5 (4.5)	5 (1.2)
Gang-related	59 (19.5)	9 (8.1)	68 (16.4)
Crime-related	145 (47.9)	20 (18.0)	165 (39.9)
Interpersonal	62 (20.5)	49 (44.2)	111 (26.8)
Other	17 (5.6)	10 (9.0)	27 (6.5)
Unknown	18 (5.9)	3 (2.7)	21 (5.1)
<b>Perp. Victim Relationship, n (%)</b>			
Spouse/partner	10 (3.3)	33 (29.7)	43 (10.4)
Ex-intimate partner	1 (0.3)	6 (5.4)	7 (1.7)
Parent	2 (0.7)	2 (1.8)	4 (0.9)
Other relative	24 (7.9)	14 (12.6)	38 (9.2)
Unrelated caregiver	0 (0)	0 (0)	0 (0)
Friend	25 (8.3)	6 (5.4)	31 (7.5)
Neighbour	12 (3.9)	12 (10.8)	24 (5.8)
Community member	100 (33.0)	17 (15.3)	117 (28.2)
Acquaintance	5 (1.7)	1 (1.0)	6 (1.5)
Police	1 (0.3)	0 (0)	1 (0.2)
Other	25 (8.3)	13 (11.7)	38 (9.2)
Unknown	98 (32.3)	7 (6.3)	105 (25.4)
<b>Gender of Perp., n (%)</b>			
Male	251 (82.8)	81 (73.0)	332 (80.2)
Female	13 (4.3)	26 (23.4)	39 (9.4)
Unknown	39 (12.9)	4 (3.6)	43 (10.4)
<b>No. of Perp., n (%)</b>			
1	89 (29.4)	87 (78.4)	176 (42.5)
2	45 (14.9)	9 (8.1)	54 (13.0)
3	51 (16.8)	7 (6.3)	58 (14.0)
4 or more	64 (21.1)	2 (1.8)	66 (16.0)
Unknown	54 (17.8)	6 (5.4)	60 (14.5)
<b>Activity at time of injury, n (%)</b>			
Leisure	176 (58.1)	75 (67.6)	251 (60.6)
Working	31 (10.2)	7 (6.3)	38 (9.2)
Travelling	48 (15.8)	16 (14.4)	64 (15.5)
Education	2 (0.7)	1 (0.9)	3 (0.7)
Playing sport	5 (1.7)	0 (0)	5 (1.2)
Other	25 (8.3)	11 (9.9)	36 (8.7)
Unknown	16 (5.3)	1 (0.9)	17 (4.1)

<b>Characteristics of violent injuries by gender</b>			
	<b>Male, n (%)</b> n= 303	<b>Female, n (%)</b> n=111	<b>Total, n (%)</b> N=414
<b>Place or scene of injury, n (%)</b>			
Home	62 (20.5)	59 (53.2)	121 (29.2)
School	5 (1.7)	1 (0.9)	6 (1.5)
Shebeen, bar or nightclub	104 (34.3)	24 (21.6)	128 (30.9)
Highway, street or road	87 (28.7)	18 (16.2)	105 (25.4)
Public transport area	10 (3.3)	0 (0)	10 (2.4)
Open field	7 (2.3)	0 (0)	7 (1.7)
Commercial area	6 (2.0)	1 (0.9)	7 (1.7)
Construction or industrial area	1 (0.3)	0 (0)	1 (0.2)
Sports area	0 (0)	1 (0.9)	1 (0.2)
Other	9 (3.0)	3 (2.7)	12 (2.9)
Unknown	12 (3.9)	4 (3.6)	16 (3.9)
<b>Alcohol, n (%)</b>			
Yes/suspected	197 (65.0)	58 (52.3)	255 (61.6)
No	73 (24.1)	48 (43.2)	121 (29.2)
Unknown	33 (10.9)	5 (4.5)	38 (9.2)
<b>Drugs, n (%)</b>			
Yes/suspected	81 (26.7)	16 (14.4)	97 (23.4)
No	157 (51.8)	86 (77.5)	243 (58.7)
Unknown	65 (21.5)	9 (8.1)	74 (17.9)
<b>Placement, n (%)</b>			
Discharged	115 (37.9)	66 (59.5)	181 (43.7)
Admitted to ward	66 (21.8)	13 (11.7)	79 (19.0)
Admitted to ICU	5 (1.7)	0 (0)	5 (1.2)
Died	1 (0.3)	0 (0)	1 (0.2)
Absconded	2 (0.7)	1 (0.9)	3 (1.0)
Referred	5 (1.7)	8 (7.2)	13 (3.1)
Transferred	15 (4.9)	0 (0)	15 (3.6)
Information not available at time of interview	91 (30.0)	23 (20.7)	114 (27.5)
Unknown	3 (1.0)	0 (0)	3 (0.7)

Abbreviations: *No.* - number, *Perp.* – perpetrator

### 6.4.2 Transport-related injuries

Table 6 provides an overview of the characteristics of transport-related injuries by gender. Pedestrians accounted for over half (50.5%) of all transport-related injuries, 57.1% and 43.5% in males and females respectively. The proportion of traffic users who were passengers was slightly higher among females than in males (30.4% versus 26.5%).

The most common vehicles involved were cars or bakkies<sup>f</sup> (74.0%) and minibus taxis (22.0%). The age groups most affected by transport injuries were those aged 25 to 34 years, 35 to 44 years and 5 to 9 years (22.1%, 17.9% and 13.7% respectively). Alcohol use was reported or suspected in 24.2% of all cases, with a higher proportion reported among males than in females (32.7% versus 15.2%).

**Table 6: Characteristics of transport-related injuries by gender**

Characteristics of transport-related injuries by gender			
	Male, n (%) n= 49	Female, n (%) n=46	Total, n (%) N=95
<b>Age category, n (%)</b>			
<1	0 (0)	0 (0)	0 (0)
1-4	6 (12.2)	4 (8.7)	10 (10.5)
5-9	6 (12.2)	7 (15.2)	13 (13.7)
10-14	3 (6.1)	3 (6.6)	6 (6.3)
15-19	1 (2.0)	5 (10.9)	6 (6.3)
20-24	4 (8.2)	6 (13.0)	10 (10.5)
25-34	13 (26.6)	8 (17.4)	21 (22.1)
35-44	11 (22.5)	6 (13.0)	17 (17.9)
45-54	2 (4.1)	6 (13.0)	8 (8.4)
55-64	3 (6.1)	0 (0)	3 (3.2)
>65	0 (0)	1 (2.2)	1 (1.1)
<b>Triage, n (%)</b>			
Red	3 (6.1)	1 (2.2)	4 (4.2)
Orange	22 (44.9)	18 (39.1)	40 (42.1)
Yellow	21 (42.9)	26 (56.5)	47 (49.4)
Green	2 (4.1)	1 (2.2)	3 (3.2)
Unknown	1 (2.0)	0 (0)	1 (1.1)
<b>Day of the week, n (%)</b>			
Monday	5 (10.2)	8 (17.4)	13 (13.7)
Tuesday	3 (6.2)	4 (8.7)	7 (7.4)
Wednesday	2 (4.1)	1 (2.2)	3 (3.2)
Thursday	6 (12.2)	14 (30.4)	20 (21.0)
Friday	6 (12.2)	5 (10.9)	11 (11.6)
Saturday	14 (28.6)	7 (15.2)	21 (22.1)
Sunday	13 (26.5)	7 (15.2)	20 (21.0)
<b>Time, n (%)</b>			
7am-1pm	14 (28.6)	14 (30.4)	28 (29.5)
1pm-7pm	13 (26.5)	20 (43.5)	33 (34.7)
7pm-1am	20 (40.8)	10 (21.7)	30 (31.6)
1am-7am	2 (4.1)	2 (4.4)	4 (4.2)

<sup>f</sup> "Bakkie" is a term used in South Africa to refer to a light delivery van or pick-up truck.



<b>Characteristics of transport-related injuries by gender</b>			
	<b>Male, n (%)</b> n= 49	<b>Female, n (%)</b> n=46	<b>Total, n (%)</b> N=95
<b>Traffic user, n (%)</b>			
Driver/rider/cyclist	7 (14.3)	12 (26.1)	19 (20.0)
Passenger	13 (26.5)	14 (30.4)	27 (28.4)
Pedestrian	28 (57.1)	20 (43.5)	48 (50.5)
Other	0 (0)	0 (0)	0 (0)
Unknown	1 (2.1)	0 (0)	1 (1.1)
<b>Vehicle involved, n (%)</b>			
Car/bakkie	35 (71.5)	35 (76.1)	70 (74.0)
Minibus taxi	12 (24.5)	9 (19.5)	21 (22.0)
Bus	0 (0)	1 (2.2)	1 (1.1)
Truck	1 (2.0)	0 (0)	1 (1.1)
Other	1 (2.0)	0 (0)	1 (1.1)
Unknown	0 (0)	1 (2.2)	1 (1.1)
<b>Activity at time of injury, n (%)</b>			
Leisure	4 (8.2)	2 (4.4)	6 (6.3)
Working	10 (20.5)	6 (13.0)	16 (16.8)
Travelling	24 (49.0)	29 (63.0)	53 (55.8)
Education	1 (2.0)	0 (0)	1 (1.1)
Playing sport	3 (6.1)	7 (15.2)	10 (10.5)
Other	6 (12.2)	1 (2.2)	7 (7.4)
Unknown	1 (2.0)	1 (2.2)	2 (2.1)
<b>Place or scene of injury, n (%)</b>			
Home	0 (0)	2 (4.4)	2 (2.1)
School	1 (2.0)	2 (4.4)	3 (3.1)
Shebeen, bar or nightclub	0 (0)	1 (2.2)	1 (1.1)
Highway, street or road	34 (69.5)	19 (41.1)	53 (55.8)
Public transport area	11 (22.5)	18 (39.1)	29 (30.5)
Open field	0 (0)	2 (4.4)	2 (2.1)
Construction or industrial area	1 (2.0)	0 (0)	1 (1.1)
Other	1 (2.0)	1 (2.2)	2 (2.1)
Unknown	1 (2.0)	1 (2.2)	2 (2.1)
<b>Alcohol, n (%)</b>			
Yes/suspected	16 (32.7)	7 (15.2)	23 (24.2)
No	26 (53.1)	36 (78.3)	62 (65.3)
Unknown	7 (14.3)	3 (6.5)	10 (10.5)
<b>Drugs, n (%)</b>			
Yes/suspected	4 (8.2)	2 (4.4)	6 (6.3)
No	35 (71.4)	40 (86.9)	75 (78.9)
Unknown	10 (20.4)	4 (8.7)	14 (14.8)
<b>Placement, n (%)</b>			
Discharged	29 (59.2)	22 (47.8)	51 (53.7)
Admitted to ward	10 (20.4)	3 (6.5)	13 (13.7)
Admitted to ICU	1 (2.0)	0 (0)	1 (1.1)
Absconded	0 (0)	1 (2.2)	1 (1.1)
Transferred	1 (2.0)	3 (6.5)	4 (4.2)
Information not available at time of interview	8 (16.3)	16 (34.8)	24 (25.3)
Unknown	0 (0)	1 (2.2)	1 (1.1)

### 6.4.3 Unintentional injuries

Table 7 shows the characteristics of unintentional injuries by gender. The most common cause of unintentional injuries was reported to be falls (37.9%), followed by sharp objects (13.1%), other poisoning (12.1%) and hot liquid burns (8.6%). The majority of unintentional injuries were triaged yellow (62.6%). The occurrence of unintentional injuries was more prevalent on Saturdays (28.8%) than in the week. Most patients reported being involved in leisure (35.4%) or sport (21.7%) activities at time of injury.

**Table 7: Characteristics of unintentional injuries by gender**

Characteristics of unintentional injuries by gender			
	Male, n (%) n= 98	Female, n (%) n=100	Total, n (%) N=198
<b>Age category, n (%)</b>			
<1	4 (4.1)	1 (1.0)	5 (2.5)
1-4	13 (13.3)	11 (11.1)	24 (12.2)
5-9	15 (15.3)	14 (14.1)	29 (14.7)
10-14	12 (12.2)	19 (19.2)	31 (15.7)
15-19	13 (13.3)	8 (8.1)	21 (10.7)
20-24	6 (6.1)	9 (9.1)	15 (7.6)
25-34	21 (21.4)	15 (15.2)	36 (18.3)
35-44	4 (4.1)	12 (12.1)	16 (8.1)
45-54	5 (5.1)	5 (5.1)	10 (5.1)
55-64	5 (5.1)	3 (3.0)	8 (4.1)
>65	0 (0)	2 (2.0)	2 (1.0)
<b>Triage, n (%)</b>			
Red	3 (3.1)	3 (3.0)	6 (3.0)
Orange	33 (33.7)	27 (27.0)	60 (30.3)
Yellow	58 (59.1)	66 (66.0)	124 (62.6)
Green	4 (4.1)	4 (4.0)	8 (4.1)
Unknown	0 (0)	0 (0)	0 (0)
<b>Day of the Week, n (%)</b>			
Monday	13 (13.3)	14 (14.0)	27 (13.6)
Tuesday	9 (9.2)	9 (9.0)	18 (9.1)
Wednesday	5 (5.1)	10 (10.0)	15 (7.6)
Thursday	12 (12.2)	10 (10.0)	22 (11.1)
Friday	15 (15.3)	9 (9.0)	24 (12.1)
Saturday	27 (27.6)	30 (30.0)	57 (28.8)
Sunday	17 (17.3)	18 (18)	35 (17.7)
<b>Time, n (%)</b>			
7am-1pm	22 (22.5)	36 (36.0)	58 (29.3)
1pm-7pm	46 (46.9)	46 (46.0)	92 (46.5)
7pm-1am	22 (22.5)	14 (14.0)	36 (18.2)
1am-7am	8 (8.1)	4 (4.0)	12 (6.0)

Characteristics of unintentional injuries by gender			
	Male, n (%) n= 98	Female, n (%) n=100	Total, n (%) N=198
<b>Specific Cause/Method, n (%)</b>			
Sharp object	13 (13.3)	13 (13.0)	26 (13.1)
Blunt object	9 (9.2)	5 (5.0)	14 (7.1)
Hot liquid burn	8 (8.3)	9 (9.0)	17 (8.6)
Fire burn	1 (1.0)	2 (2.0)	3 (1.5)
Fall on level	37 (37.8)	38 (38.0)	75 (37.9)
Fall on stairs	5 (5.1)	7 (7.0)	12 (6.1)
Fall from height	7 (7.1)	3 (3.0)	10 (5.1)
Jump	0 (0)	2 (2.0)	2(1.0)
Caught between/struck against	1 (1.0)	0 (0)	1 (0.5)
Near drowning	0 (0)	1 (1.0)	1 (0.5)
Hanging	0 (0)	1 (1.0)	1 (0.5)
Other poisoning	10 (10.2)	14 (14.0)	24 (12.1)
Inhaled gas	2 (2.0)	0 (0)	2 (1.0)
Dog bite	2 (2.0)	2 (2.0)	4 (2.0)
Other bite/sting	1 (1.0)	1 (1.0)	2 (1.0)
Machinery	1 (1.0)	0 (0)	1 (0.5)
Other	0 (0)	1 (1.0)	1 (0.5)
Unknown	1 (1.0)	1 (1.0)	2 (1.0)
<b>Activity at time of injury, n (%)</b>			
Leisure	30 (30.6)	40 (40.0)	70 (35.4)
Working	7 (7.1)	13 (13.0)	20 (10.1)
Travelling	14 (14.3)	9 (9.0)	23 (11.6)
Education	2 (2.0)	2 (2.0)	4 (2.0)
Playing sport	23 (23.5)	20 (20.0)	43 (21.7)
Other	19 (19.4)	14 (14.0)	33 (16.7)
Unknown	3 (3.1)	2 (2.0)	5 (2.5)
<b>Place or scene of injury, n (%)</b>			
Home	46 (47.0)	57 (57.0)	103 (52.0)
School	6 (6.1)	8 (8.0)	14 (7.1)
Shebeen, bar or nightclub	4 (4.1)	2 (2.0)	6 (3.0)
Highway, street or road	12 (12.3)	5 (5.0)	17 (8.6)
Public transport area	2 (2.0)	3 (3.0)	5 (2.5)
Open field	7 (7.2)	4 (4.0)	11 (5.6)
Commercial area	6 (6.1)	7 (7.0)	13 (6.6)
Construction or industrial area	1 (1.0)	1 (1.0)	2 (1.0)
Sports area	11 (11.2)	9 (9.0)	20 (10.1)
Other	2 (2.0)	3 (3.0)	5 (2.5)
Unknown	1 (1.0)	1 (1.0)	2 (1.0)
<b>Alcohol, n (%)</b>			
Yes/suspected	16 (16.3)	9 (9.0)	25 (12.6)
No	72 (73.5)	85 (85.0)	157 (79.3)
Unknown	10 (10.2)	6 (6.0)	16 (8.1)
<b>Drugs, n (%)</b>			
Yes/suspected	10 (10.2)	6 (6.0)	16 (8.1)
No	77 (78.6)	87 (87.0)	164 (82.8)
Unknown	11 (11.2)	7 (7.0)	18 (9.1)

<b>Characteristics of unintentional injuries by gender</b>			
	<b>Male, n (%)</b> <b>n= 98</b>	<b>Female, n (%)</b> <b>n=100</b>	<b>Total, n (%)</b> <b>N=198</b>
<b>Placement, n (%)</b>			
Discharged	67 (68.4)	69 (69.0)	136 (68.7)
Admitted to ward	9 (9.2)	13 (13.0)	22 (11.1)
Admitted to ICU	2 (2.0)	0 (0)	2 (1.0)
Referred	0 (0)	1 (1.0)	1 (0.5)
Transferred	4 (4.1)	3 (3.0)	7 (3.5)
Information not available at time of interview	14 (14.3)	11 (11.0)	25 (12.6)
Unknown	2 (2.0)	3 (3.0)	5 (2.5)

#### 6.4.4 Self-harm injuries

Table 8 shows the characteristics of self-harm injuries by gender. Only 19 cases of self-harm were reported; seven cases (36.8%) were triaged red and a further six cases (31.6%) were triaged orange, thus requiring very urgent and emergency management respectively, as suggested by the South African Triage Scale.<sup>7</sup> The majority (18 cases) were due to other poisoning (94.7%), which is poisoning due to any substance other than paraffin, and were primarily cases reported as “overdose” in the registers.

**Table 8: Characteristics of self-harm injuries by gender**

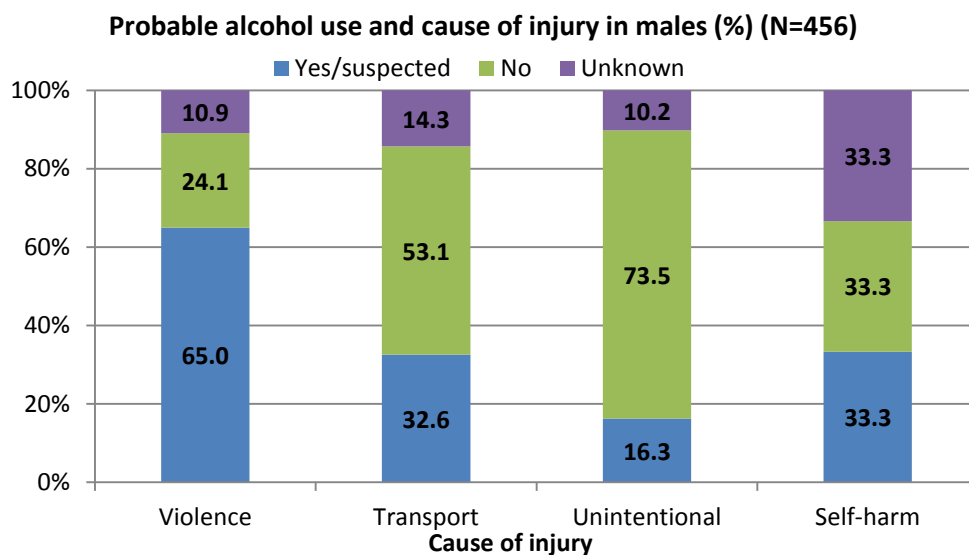
Characteristics of self-harm injuries by gender			
	Male, n (%) n= 6	Female, n (%) n=13	Total, n (%) N=19
<b>Age category, n (%)</b>			
<1	0 (0)	0 (0)	0 (0)
1-4	0 (0)	0 (0)	0 (0)
5-9	0 (0)	0 (0)	0 (0)
10-14	1 (16.7)	0 (0)	1 (5.3)
15-19	1 (16.7)	4 (30.7)	5 (26.3)
20-24	1 (16.7)	2 (15.4)	3 (15.8)
25-34	3 (50.0)	2 (15.4)	5 (26.2)
35-44	0 (0)	3 (23.1)	3 (15.8)
45-54	0 (0)	1 (7.7)	1 (5.3)
55-64	0 (0)	0 (0)	0 (0)
>65	0 (0)	1 (7.7)	1 (5.3)
<b>Triage, n (%)</b>			
Red	3 (50.0)	4 (30.8)	7 (36.8)
Orange	1 (16.7)	5 (38.4)	6 (31.6)
Yellow	2 (33.3)	3 (23.1)	5 (26.3)
Green	0 (0)	1 (7.7)	1 (5.3)
Unknown	0 (0)	0 (0)	0 (0)
<b>Day of the week, n (%)</b>			
Monday	1 (16.7)	1 (7.7)	2 (10.5)
Tuesday	1 (16.7)	3 (23.1)	4 (21.0)
Wednesday	0 (0)	3 (23.1)	3 (15.8)
Thursday	1 (16.7)	0 (0)	1 (5.3)
Friday	0 (0)	2 (15.4)	2 (10.5)
Saturday	2 (33.3)	2 (15.4)	4 (21.0)
Sunday	1 (16.7)	2 (15.4)	3 (15.8)
<b>Time, n (%)</b>			
7am-1pm	2 (33.3)	4 (30.8)	6 (31.6)
1pm-7pm	0 (0)	3 (23.1)	3 (15.8)
7pm-1am	2 (33.3)	6 (46.1)	8 (42.1)
1am-7am	2 (33.3)	0 (0)	2 (10.5)
<b>Specific cause/method, n (%)</b>			
Hanging	1 (16.7)	0 (0)	1 (5.3)
Other poisoning	5 (83.3)	13 (100.0)	18 (94.7)
<b>Activity at time of injury, n (%)</b>			
Leisure	3 (50.0)	12 (92.3)	15 (78.9)
Other	1 (16.7)	0 (0)	1 (5.3)
Unknown	2 (33.3)	1 (7.7)	3 (15.8)

<b>Characteristics of self-harm injuries by gender</b>			
	<b>Male, n (%)</b> n= 6	<b>Female, n (%)</b> n=13	<b>Total, n (%)</b> N=19
<b>Place or scene of injury, n (%)</b>			
Home	4 (66.6)	13 (100.0)	17 (89.4)
Other	1 (16.7)	0 (0)	1 (5.3)
Unknown	1 (16.7)	0 (0)	1 (5.3)
<b>Alcohol, n (%)</b>			
Yes/suspected	2 (33.3)	2 (15.4)	4 (21.1)
No	2 (33.3)	6 (46.1)	8 (42.1)
Unknown	2 (33.3)	5 (38.5)	7 (36.8)
<b>Drugs, n (%)</b>			
Yes/suspected	2 (33.3)	2 (15.4)	4 (21.1)
No	2 (33.3)	6 (46.1)	8 (42.1)
Unknown	2 (33.3)	5 (38.5)	7 (36.8)
<b>Placement, n (%)</b>			
Discharged	0 (0)	2 (15.4)	2 (10.5)
Admitted to ward	2 (33.3)	4 (30.8)	6 (31.6)
Admitted to ICU	0 (0)	1 (7.7)	1 (5.3)
Transferred	3 (50)	2 (15.4)	5 (26.3)
Information not available at time of interview	0 (0)	4 (30.8)	4 (21.1)
Unknown	1 (16.7)	0 (0)	1 (5.3)

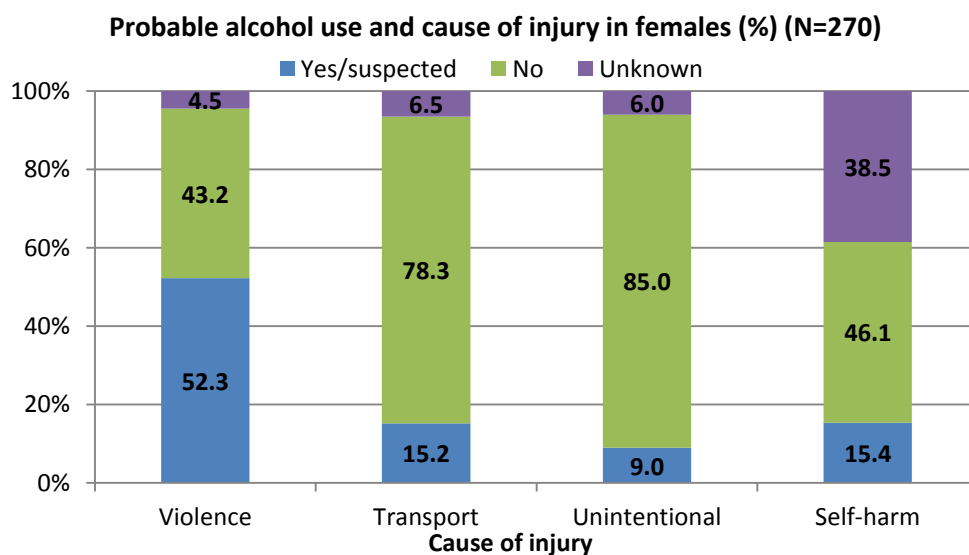
## 7. Alcohol and drug use and injuries

Overall, 42.3% of all injuries involved obvious or suspected alcohol use (see Table 3). With regard to violent injuries among males and females, 65.0% and 52.3% were associated with alcohol use respectively (see Figure 5 and Figure 6). With regard to drug use, 16.9% of injury cases overall reported having used drugs or were suspected to have used drugs. This proportion was significantly higher among males (21.3%) than females (9.6%). No information on the specific type of drug was collected.

**Figure 5: Probable alcohol use and cause of injury among males**



**Figure 6: Probable alcohol use and cause of injury among females**



## 8. Location of injuries

Table 9 presents an overview of location of injury by area and sub-area. The majority of injuries in Khayelitsha were reported to have occurred in Site B (30.8%), Makhaza (15.5%) and Harare (12.7%). In Nyanga, KTC continues to have the highest proportion of injuries (23.6%) followed by Old Locations (both 12.5%). In Gugulethu, Section 2 (26.3%) had the highest proportion of injuries, followed by Section 3 (19.3%) and Section 1 (17.5%). Injuries reported to have occurred in “Other areas” accounted for 11.7% (85 cases) of all injuries. Of these the most commonly reported “Other areas” were Manenberg, Heideveld and Mfuleni with 22, 18 and 11 cases reported to have occurred here respectively.

**Table 9: Location of injury by area and sub-area**

Location of injury by area and sub-area	
Area/ sub-area	n (%)
<b>Khayelitsha</b>	<b>n=361</b>
Enkanini	18 (5.0)
Harare	46 (12.7)
Ilitha Park	12 (3.3)
Khaya	14 (3.9)
Kuyasa	15 (4.2)
Makaya	12 (3.3)
Makhaza	56 (15.5)
Site B	116 (32.1)
Site C	32 (8.9)
Town 2	14 (3.9)
Unknown sub-area Khayelitsha	4 (1.1)
Other sub-area Khayelitsha	22 (6.1)
<b>Nyanga</b>	<b>n=71</b>
New Crossroads	6 (8.3)
Old Locations	9 (12.5)
Mau Mau	6 (8.3)
Mkhonto	2 (2.8)
Freedom Square	1 (1.4)
Zwelitsha	6 (8.3)
Emaholweni (Terminus Rd)	2 (2.8)
Emaholweni (Lusaka)	2 (2.8)
KTC	17 (23.6)
Lusaka	3 (4.1)
Other sub-area Nyanga	7 (9.7)
Unknown sub-area Nyanga	2 (2.8)



Location of injury by area and sub-area	
Area/ sub-area	n (%)
<b>Gugulethu</b>	<b>n=114</b>
Lotus Park	2 (1.7)
Station Park	3 (2.6)
Phola Park	1 (0.9)
Kwakhi-khi	4 (3.5)
Section 1	20 (17.5)
Section 2	30 (26.3)
Thambo Village	4 (3.5)
Section 3	22 (19.3)
Section 4	4 (3.5)
Malunga Park	6 (5.3)
Thambo Square	3 (2.6)
Other sub-area Gugulethu	12 (10.5)
Unknown sub-area Gugulethu	1 (0.9)
<b>Phillipi</b>	<b>n=64</b>
Sweet Home Farm	23 (35.9)
Unknown sub-area Phillipi	6 (9.4)
Other sub-area Phillipi	35 (54.7)
<b>Crossroads</b>	<b>n=20</b>
Known sub-area Crossroads	18 (90)
Unknown sub-area Crossroads	2 (10)
<b>Other</b>	<b>n=85</b>
Unknown	n=11
<b>Total</b>	<b>n=726</b>

## 9. Summary

The overall proportion of injury cases is slightly higher compared to the previous RA conducted in September/October 2014<sup>4</sup> but lower than the first two RAs<sup>2,6</sup>, both of which were conducted in September/October. The proportion is however slightly higher than the only other RA conducted in February/March 2014.<sup>5</sup> Violence continues to be the leading cause of injuries in both these communities, particularly among young males. As noted in the previous RAs, patterns of injury, and particularly violent injury, differ slightly by age and gender.<sup>2,6</sup> Sharp force was the leading cause of violent injury in both genders. Nonetheless, physical blunt assault (push/kick/punch) still accounts for a notable proportion of violent injuries among women, with spouses and partners being the main perpetrators. Crime-related violence among males in particular remains one of the leading types of violence. As with the previous RAs, a notably high proportion of violence continues to be inflicted by community members, as well as by multiple perpetrators. The sub-areas within the two communities reporting the highest number of injuries remain largely unchanged from the previous three RAs.<sup>4,6</sup>

## 10. References

1. World Health Organization. Global consultation on violence and health. Violence: a public health priority (WHO/EHA/SPI.POA.2). Geneva: World Health Organization; 1996.
2. Mureithi L, Van Schaik N, Matzopoulos R, Misra M, Naledi T, English R. Report on the Rapid Assessment of the Injury Morbidity Burden at Health Services in Three High-violence Communities in the Western Cape - February 2013; Report No. 1. Durban: Health Systems Trust; 2013.
3. Prinsloo M, Neethling I, Donson H, Hendricks N, Krige A, Louw L, Maruping M, Matzopoulos R et al. A profile of fatal injuries in South Africa - 7th Annual Report of the National Injury Mortality Surveillance System 2005. South African Medical Research Council and UNISA Institute for Social and Health Sciences; 2007.
4. Mureithi L, Africa A, Van Schaik N, Naledi N, Matzopoulos R, English R. Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape: Phase 3 Summary Report September/October 2014. March 2015; Report No. 3. Durban: Health Systems Trust; 2015.
5. Mureithi L, Van Schaik N, Matzopoulos R, Naledi T, English R. Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape: Phase 2 Summary Report February/March 2014. May 2014; Report No. 2. Durban: Health Systems Trust; 2014.
6. Mureithi L, Van Schaik N, Yama K, Matzopoulos R, Naledi T, English R. Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape: Phase 1 Summary Report September/October 2013. December 2013; Report No. 1. Durban: Health Systems Trust; 2013.
7. South African Triage Group. South African Triage Scale (SATS) Training Manual 2012. Cape Town: Western Cape Department of Health; 2012.

## Appendix A: Data collection form

FACILITY CODE		HOSP. FOLDER NO.				STUDY NO.													
GENDER		RACE																	
DATE OF BIRTH		IF DOB UNKNOWN CAPTURE AGE →				AGE													
Is this an interview?		Yes		No		IF YES CAPTURE DATE OF INTERVIEW OR FOLDER REVIEW →													
Is this a folder review?		Yes		No															
Reason for visit to emergency centre:																			
Capture reason for seeking treatment at health facility																			
FIRST PRESENTATION TO A FACILITY FOR THIS INJURY?		Yes		No		Was patient referred?													
						Yes		No											
						If yes capture referral facility: _____													
						Yes		No											
TRIAGE CODE		1 Red		2 Orange		3 Yellow		4 Green		5 Blue		99 Unknown							
Date of injury		Time of injury		If exact time not known choose approximate time		7am-1pm		1pm-7pm											
						7pm-1am		1am-7am											
Date of treatment		Triage time		If exact time not known choose approximate time		7am-1pm		1pm-7pm											
						7pm-1am		1am-7am											
WAS ALCOHOL USED BY THE PATIENT PRIOR TO INJURY?				WERE DRUGS USED BY THE PATIENT PRIOR TO INJURY?															
Yes/suspected		No		Unknown		Yes/suspected		No		Unknown									
CAUSE OF INJURY				Violence				Transport				Unintentional/other accident				Self-harm			
				↓				↓				↓				↓			
				1				2				3				4			
Please complete the section appropriate for the cause of injury																			
(1) VIOLENCE (person-on-person intentional)																			
Specific cause				Type of violence				Perpetrator-victim relationship											
1	Sharp object (e.g. cut/stabbed)	7	Choking/strangulation	1	Rape/sexual	1	Spouse/partner	7	Neighbour										
2	Blunt object	8	Fire burn	2	Child abuse	2	Ex-intimate partner	8	Community member										
3	Firearm	9	Other burn	3	Gang-related	3	Parent	9	Acquaintance										
4	Push/kick/punch	10	Poisoning	4	Crime-related (e.g. robbery, mugging)	4	Other relative	10	Police										
5	Human bite	89	Other	5	Interpersonal (other than those above)	5	Unrelated caregiver	89	Other										
6	Explosion	99	Unknown	89	Other	Specify: _____	6	Friend	99	Unknown									

Gender of main perpetrator	M	F	U		
Number of perpetrators	1	2	3	4 or more	Unknown

(2) TRANSPORT			
Specific cause			
Traffic user			
1	Driver/ rider/ cyclist		
2	Passenger	89	Other
3	Pedestrian	99	Unknown
Vehicle involved			
1	Car/bakkie	6	Bicycle
2	Minibus taxi	7	Train
3	Bus	8	Aircraft
4	Truck	89	Other
5	Motorcycle	99	Unknown

(3) UNINTENTIONAL/ OTHER ACCIDENT OR (4) SELF-HARM			
Specific cause/ method			
If cause of injury is unintentional or other accident or self-harm choose specific cause or method below			
1	Sharp object	12	Caught between/ struck against
2	Blunt object	13	Near drowning
3	Firearm	14	Hanging
4	Hot liquid burn	15	Paraffin poisoning
5	Chemical burn	16	Other poisoning
6	Electrical burn	17	Inhaled gas
7	Fire burn	18	Dog bite
8	Fall on level	19	Other bite/sting
9	Fall on stairs	20	Machinery
10	Fall from height	89	Other
11	Jump	99	Unknown

Where does patient normally reside/live? Choose from list						
Khayelitsha	Nyanga	Gugulethu	Phillipi	Crossroads	Other: _____	Unknown
Main area: _____						
Sub-area: _____						

Where did the injury occur? Choose from list						
Khayelitsha	Nyanga	Gugulethu	Phillipi	Crossroads	Other: _____	Unknown
Main area: _____						
Sub-area: _____						

PLACEMENT AFTER INITIAL ASSESSMENT	
1	Discharged
2	Admitted to ward
3	Admitted to ICU
4	Died
5	Absconded
6	Referred to: _____
7	Transferred to: _____
8	Information not available at time of interview
99	Unknown

FORM COMPLETED BY	
Name:	_____
Signature:	_____
Date:	_____

## Appendix B: League table ranking specific cause of injury by age category

Table 10: League table showing leading specific causes of injury by age category

		Age category										Overall <sup>9</sup>
Rank	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	>65	
1	Hot liquid burn 1	Fall on level 10	Pedestrian 12	Fall on level 13	Sharp object viol. 27	Sharp object viol. 56	Sharp object viol. 83	Sharp object viol. 25	Sharp object viol. 15	Sharp object viol. 3	Sharp object viol. 3	Sharp object viol. 216
2	Fall on level 1	Hot liquid burn 4	Fall on level 5	Sharp object viol 4	Push/kick/punch 9	Firearm viol. 9	Blunt object viol. 25	Pedestrian 11	Fall on level 4	Push/kick/punch 2	Fall on level 2	Fall on level 59
3	Fall from height 1	Other 4	Rape/sexual 5	Dog bite 3	Blunt object viol. 6	Blunt object viol. 8	Push/kick/punch 22	Blunt object viol. 10	Blunt object viol 4	Passenger 2	Fall on stairs 2	Blunt object viol. 56
4	Unknown 1	Blunt object 2	Sharp object 4	Other bite/sting 2	Rape/sexual 6	Pedestrian 8	Fall on level 12	Push/kick/punch 7	Push/kick/punch 4	Fall on level 1	Firearm viol. 2	Push/kick/punch 50
5	Passenger 1	Jump 2	Blunt object 4	Rape/sexual 2	Fall on level 4	Push/kick/punch 5	Passenger 8	Fall on level 5	Poisoning viol. 3	Dog bite 1	Unknown violence 2	Pedestrian 47
6		Paraffin poisoning 2	Jump 4	Passenger 2	Sharp object 3	Other poisoning S.H. 5	Pedestrian 8	Blunt object 4	Passenger 3	Unknown 1	Unknown transport 2	Passenger 27
7		Other bite/sting 2	Passenger 3	Pedestrian 2	Passenger 3	Other violence 4	Unknown 5	Firearm viol. 4	Dog bite 2	Blunt object viol. 1		Rape/sexual 25
8		Unknown 2					Unknown violence 5		Pedestrian 2	Pedestrian 1		Firearm viol. 21
		Rape/sexual 2								Unknown violence 1		

<sup>9</sup> Overall ranking column includes total injuries from each specific cause or method. Those that could not be ranked were excluded because either there were no cases, or there were more specific causes or methods (typically one or two cases) than remaining ranking places could accommodate.

## Appendix C: Comparison between 2012, 2013, 2014 and 2015 surveys<sup>h</sup>

Table 11: Proportion of injury and non-injury cases by facility – 2012, 2013, 2014 and 2015 surveys

Facility	KDH	Site B	MM	Gugulethu	GFJ	Nyanga	Total
<b>Sep 2012</b>							
Injury	239 (47.8)	156 (56.9)	40 (25.3)	254 (52.5)	161 (28.0)	N/A	850 (42.7)
Non-injury	261 (52.2)	118 (43.1)	118 (74.7)	230 (47.5)	414 (72.0)	N/A	1141 (57.3)
<b>Total</b>	<b>500 (100.0)</b>	<b>274 (100.0)</b>	<b>158 (100.0)</b>	<b>575 (100.0)</b>	<b>484 (100.0)</b>	<b>N/A</b>	<b>1991 (100.0)</b>
<b>Sep 2013</b>							
Injury	151 (34.2)	240 (51.1)	34 (27.9)	325 (56.0)	80 (25.5)	6 (7.2)	836 (41.6)
Non-injury	291 (65.8)	230 (28.9)	88 (72.1)	255 (44.0)	234 (74.5)	77 (92.8)	1175 (58.4)
<b>Total</b>	<b>442 (100.0)</b>	<b>470 (100.0)</b>	<b>122 (100.0)</b>	<b>580 (100.0)</b>	<b>314 (100.0)</b>	<b>83 (100.0)</b>	<b>2011 (100.0)</b>
<b>Feb 2014</b>							
Injury	184 (25.0)	192 (34.8)	21 (20.2)	234 (39.8)	92 (33.8)	4 (6.2)	727 (31.4)
Non-injury	552 (75.0)	360 (65.2)	83 (79.8)	354 (60.2)	180 (66.2)	61 (93.9)	1590 (68.6)
<b>Total</b>	<b>736 (100.0)</b>	<b>552 (100.0)</b>	<b>104 (100.0)</b>	<b>588 (100.0)</b>	<b>272 (100.0)</b>	<b>65 (100.0)</b>	<b>2317 (100.0)</b>
<b>Sep 2014</b>							
<b>Heideveld</b>							
Injury	143 (35.4)	216 (42.3)	30 (25.0)	223 (48.0)	72 (27.2)	3 (3.0)	687 (36.8)
Non-injury	261 (64.6)	295 (57.7)	90 (75.0)	242 (52.0)	193 (72.8)	98 (97.0)	1179 (63.2)
<b>Total</b>	<b>404 (100.0)</b>	<b>511 (100.0)</b>	<b>120 (100.0)</b>	<b>465 (100.0)</b>	<b>265 (100.0)</b>	<b>101 (100.0)</b>	<b>1866 (100.0)</b>
<b>Feb 2015</b>							
<b>Heideveld</b>							
Injury	123 (26.5)	233 (54.8)	44 (37.3)	265 (49.5)	79 (33.5)	3 (3.3)	747 (39.9)
Non-injury	341 (73.5)	192 (45.2)	74 (62.7)	270 (50.5)	157 (66.5)	89 (96.7)	1123 (60.1)
<b>Total</b>	<b>464 (100.0)</b>	<b>425 (100.0)</b>	<b>118 (100.0)</b>	<b>535 (100.0)</b>	<b>236 (100.0)</b>	<b>92 (100.0)</b>	<b>1870 (100.0)</b>

Table 12: Proportion of injury cases by cause – 2012, 2013, 2014 and 2015 surveys

	Violence	Sexual assault	Transport	Unintentional	Self-harm	Unknown	Total
<b>Sep-12</b>	529 (62.2)	58 (6.8)	106 (12.5)	168 (19.8)	20 (2.4)	27 (3.2)	850 (100.0)
<b>Sep-13</b>	419 (61.4)	35 (5.1)	65 (9.5)	176 (25.8)	23 (3.4)	N/A	683 (100.0)
<b>Feb-14</b>	416 (60.4)	26(3.8)	80 (11.6)	172 (25.0)	21 (3.1)	N/A	689 (100.0)
<b>Sep-14</b>	394 (58.9)	25 (3.7)	88 (13.2)	174 (26.0)	13 (1.9)	N/A	669 (100.0)
<b>Feb-15</b>	414 (57.0)	17 (4.1)	95 (13.1)	198 (27.3)	19 (2.6)	N/A	743 (100.0)

<sup>h</sup> Data for 2012 exclude data from Elsie's River CHC, which were included in the RA conducted in 2012 survey.

Figure 7: Proportion of injury and non-injury cases by facility – 2012, 2013, 2014 and 2015 surveys<sup>i</sup>

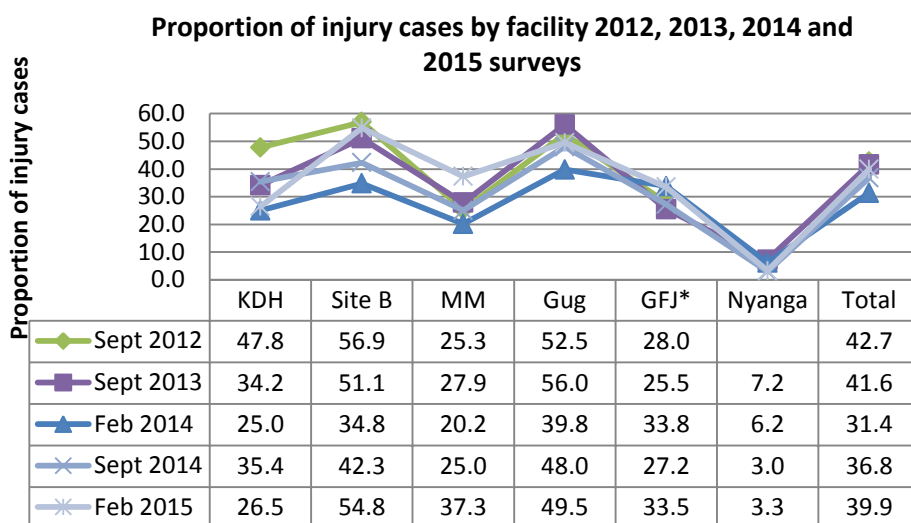


Table 13: Probable alcohol use by gender and cause of injury – 2012, 2013, 2014 and 2015 surveys

Sept 2012	Violence			Transport		
	Male	Female	Total	Male	Female	Total
Yes	198 (53.4)	53 (33.5)	251 (47.5)	18 (28.1)	9 (21.4)	27 (25.5)
No	152 (41.0)	93 (58.9)	245 (46.3)	42 (65.6)	27 (64.3)	69 (65.1)
Unknown	21 (5.7)	12 (7.6)	33 (6.2)	4 (6.3)	6 (14.3)	10 (9.4)
<b>Total</b>	<b>371 (100.0)</b>	<b>158 (100.0)</b>	<b>529 (100.0)</b>	<b>64 (100.0)</b>	<b>42 (100.0)</b>	<b>106 (100.0)</b>
<b>Sept 2013</b>						
Yes	158 (55.4)	65 (48.5)	223 (53.2)	12 (30.8)	4 (15.4)	16 (24.6)
No	86 (30.2)	56 (41.8)	142 (33.9)	23 (59.0)	20 (76.9)	43 (66.2)
Unknown	41 (14.4)	13 (9.7)	54 (12.9)	4 (10.3)	2 (7.7)	6 (9.2)
<b>Total</b>	<b>285 (100.0)</b>	<b>134 (100.0)</b>	<b>419 (100.0)</b>	<b>39 (100.0)</b>	<b>26 (100.0)</b>	<b>65 (100.0)</b>
<b>Feb 2014</b>						
Yes	135 (50.6)	67 (45.0)	202 (48.6)	15 (29.4)	1 (3.5)	16 (20.0)
No	98 (36.7)	70 (47.0)	168 (40.4)	31 (60.8)	22 (75.9)	53 (66.3)
Unknown	34 (12.7)	12 (8.1)	46 (11.1)	5 (9.8)	6 (20.7)	11 (13.8)
<b>Total</b>	<b>267 (100.0)</b>	<b>149 (100.0)</b>	<b>416 (100.0)</b>	<b>51 (100.0)</b>	<b>29 (100.0)</b>	<b>80 (100.0)</b>
<b>Sept 2014</b>						
Yes	155 (56.6)	54 (45.0)	209 (53.1)	14 (25.9)	3 (8.8)	17 (19.3)
No	83 (30.3)	49 (40.8)	132 (33.5)	30 (55.6)	28 (82.4)	58 (65.9)
Unknown	36 (13.1)	17 (14.2)	53 (13.5)	10 (18.5)	3 (8.8)	13 (14.8)
<b>Total</b>	<b>274 (100.0)</b>	<b>120 (100.0)</b>	<b>394 (100.0)</b>	<b>54 (100.0)</b>	<b>34 (100.0)</b>	<b>88 (100.0)</b>
<b>Feb 2015</b>						
Yes	197 (65.0)	58 (52.3)	255 (61.6)	16 (32.6)	7 (15.2)	23 (24.2)
No	73 (24.1)	48 (43.2)	121 (29.2)	26 (53.1)	36 (78.3)	62 (65.3)
Unknown	33 (10.9)	5 (4.5)	38 (9.2)	7 (14.3)	3 (6.5)	10 (10.5)
<b>Total</b>	<b>303 (100.0)</b>	<b>111 (100.0)</b>	<b>414 (100.0)</b>	<b>49 (100.0)</b>	<b>46 (100.0)</b>	<b>95 (100.0)</b>

<sup>i</sup> GFJ Hospital was undergoing protracted restructuring changes at the time of this RA, a process that started in October 2013. The emergency unit has been relocated to Heideveld CHC. As such, data collection was conducted at Heideveld CHC in September 2014. In the first three RAs, data collection occurred at GFJ Hospital.