

Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape

Phase 1 Summary Report September/October 2013

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November 2013

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Suggested citation:

Mureithi L, van Schaik N, Yama K, Naledi T, Matzopoulos R, English R. Injury Morbidity Surveillance in Nyanga and Khayelitsha in the Western Cape – Phase 1 Summary Report September/October 2013. Durban: Health Systems Trust; 2013.

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Acknowledgments

This work was jointly funded by the Western Cape Department of Health's Health Impact Assessment Unit and with the aid of a grant from the International Development Research Centre, Ottawa, Canada. We thank the hospital, facility and emergency centre unit managers at the six facilities included in this rapid assessment. They availed their time and co-operation and allowed 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.

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List of abbreviations

BoD	Burden of Disease
CFU	Clinical Forensic Unit
CHC	Community Health Centre
DoA	Dead on Arrival
DoH	Department of Health
EC	Emergency Centre
GFJ	GF Jooste Hospital
HREC	Human Research and Ethics Committee
HST	Health Systems Trust
ICU	Intensive Care Unit
KDH	Khayelitsha District Hospital
MRC	Medical Research Council
MM	Michael Mapongwana Community Health Centre
MVA	Motor Vehicle Accident
Perp.	Perpetrator(s)
PHRC	Provincial Health Research Committee
PGWC	Provincial Government of the Western Cape
Pois.	Poisoning
PoP	Plaster of Paris
RA	Rapid Assessment
RTI	Road Traffic Injuries
S.H.	Self-harm
UCT	University of Cape Town
Viol.	Violence
VPUU	Violence Prevention through Urban Upgrading
WC	Western Cape

Definitions

The following definitions apply to the study form as found in Appendix C.

Violence: Violent injuries were 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.¹

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 KDH and GFJ Hospital. 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 were classified as unintentional and included accidental burns. Various methods are listed on the form in Appendix C.

The following require additional explanation:

Fall: Where the information stated that the injury was due to a fall. Falls were 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 (or as recorded in the patient file), and/or there was no documentation relating to drug use in the file.

1. Aims and objectives

To conduct a repeat rapid assessment (RA) of injury morbidity presenting at district-level health services in six facilities across two out of five previously identified high-violence communities in the Western Cape Province, with the aim of establishing a risk profile of injuries presenting in these areas. This is the first of a series of six-monthly RAs to be conducted over the next three years in order to identify high-risk population sub-groups and high-risk areas for injury, and to monitor trends over time. The areas included in this assessment are Khayelitsha and Nyanga and the facilities comprise hospitals and community health centres (CHCs).

The objectives are:

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

2. Methodology

The six facilities included in this RA were:

- Khayelitsha District Hospital (KDH);
- Khayelitsha Site B CHC;
- Michael Mapongwana (MM) CHC;
- Gugulethu CHC;
- Nyanga CHC;
- GF Jooste (GFJ) Hospital.

2.1 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 downloaded onto a mobile phone. Information was captured on all individuals seen in the Casualty Department/Emergency Centre (EC) from 07h00 on 26 September 2013 to 07h00 on 3 October 2013. Patients presenting with injuries were interviewed, where possible, to obtain further details on their injuries such as location, alcohol use, who they were injured by as well as the time at which the injury occurred. Informed consent was obtained prior to 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.

2.2 Emergency Centre register data on all cases

In addition to collection of information on injuries via interviews, data on all individuals seen in the EC during the same period (26 September to 3 October 2013), as captured in the EC register by staff, were captured onto the same database. This information was captured directly from the EC register only by trained data capturers using the same electronic tool and mobile phones between 30 September and 8 October 2013. 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.

3. 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.

4. Data quality issues

GF Jooste (GFJ) Hospital was undergoing restructuring changes at the time of the RA. With the exception of the emergency unit and an acute ward, all other hospital wards had been moved to Mitchells Plain District Hospital when the RA was conducted. In addition, from 1 October 2013 all polytrauma cases from this hospital's drainage area that would normally have been seen at this facility were referred directly to Groote Schuur Hospital. This may have resulted in fewer injury cases, particularly severe injuries, being seen at this facility.

Site B CHC did not have a functioning electronic patient system on the evening of 28 September and consequently patient hospital folder numbers could not be generated or located. Furthermore, folder numbers were not created retrospectively; a number of register entries therefore had no folder numbers, making it difficult to locate folders for subsequent folder reviews. 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.

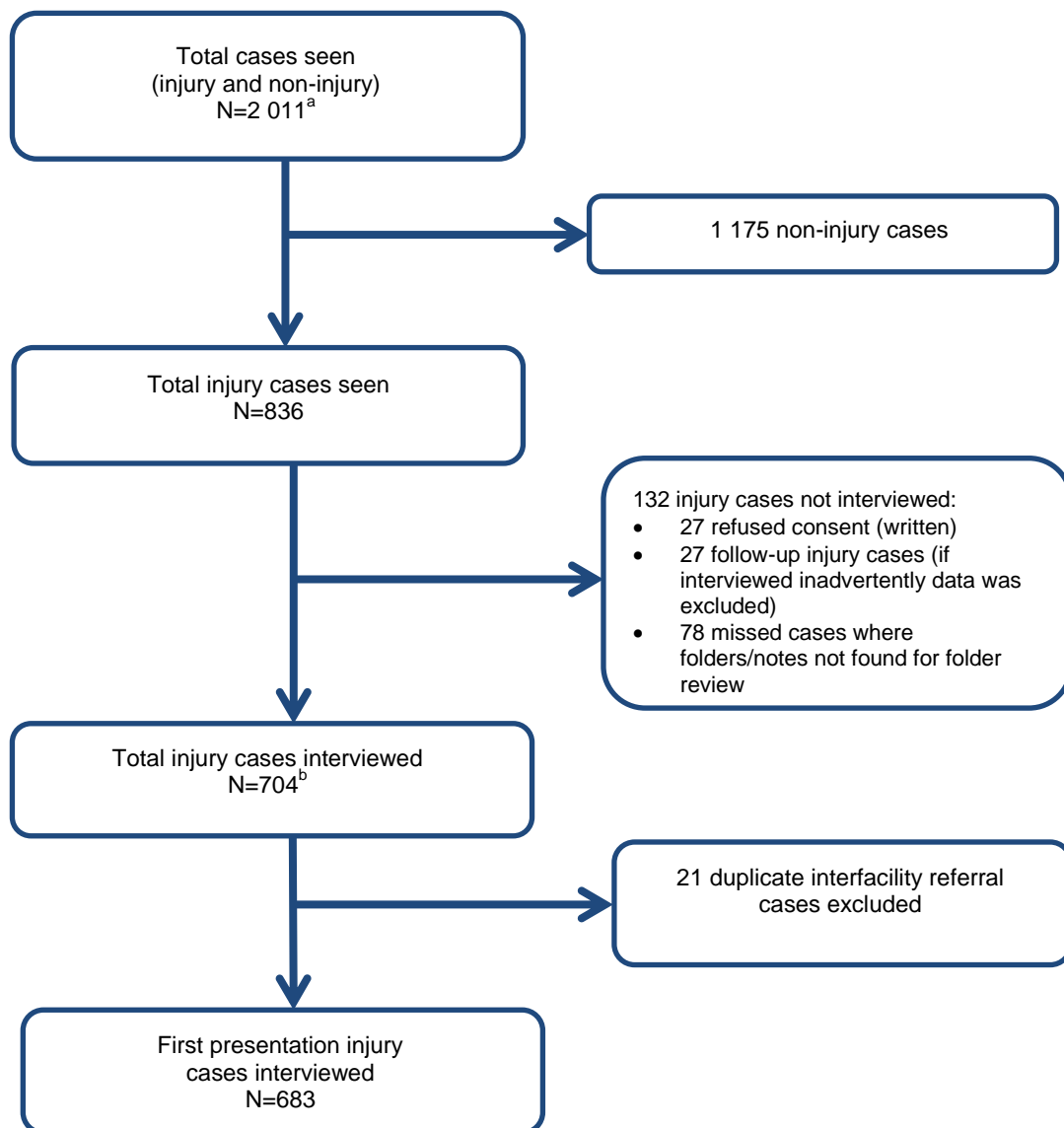
Some unintentional injuries were misclassified as self-harm; these seven cases were reclassified retrospectively as unintentional injuries, using the reason for visit captured.

Some patients who were transferred from Site B, Michael Mapongwana and Gugulethu CHCs to another facility for admission to a ward or ICU were inappropriately captured as "admitted to ward or ICU". These 49 cases were recoded and reclassified as transfers.

5. Findings

Figure 1 and Table 1 give an overview of patients seen at all six facilities - both non-injury and injury cases. Table 2 and Table 4 give an overview of the main characteristics of total cases and injury cases interviewed by facility respectively.

Figure 1: Flowchart of patients interviewed



^a Total cases seen (N=2 011) includes 1 850 cases captured from the EC register and 161 injury cases interviewed but not captured in EC register by facility staff.

^b Total injury cases interviewed (N=704) includes 161 cases not captured by staff in EC register and excludes 27 follow-up injury cases.

Table 1: Overview of patients captured using EC register and through interviews, (n)

Facility	Register data			Injury data		
	Total cases captured from EC register	Injury cases interviewed but not in EC register	Actual total cases seen	Total injury cases interviewed	Injury cases not interviewed	Actual total injury cases
KDH	394	48	442	123	28	151
Site B	415	55	470	195	45	240
MM	122	0	122	26	8	34
Gugulethu	546	34	580	295	30	325
GFJ	290	24	314	59	21	80
Nyanga	83	0	83	6	0	6
Total	1850	161	2011	704	132	836

It is noted that the EC register does not appear to be complete, as 8% of the total cases seen were not captured in the register. This percentage could be higher as it is not certain what percentage of medical cases were ultimately captured.

5.1 Total cases seen by facility

Table 2: Characteristics of total cases seen by facility

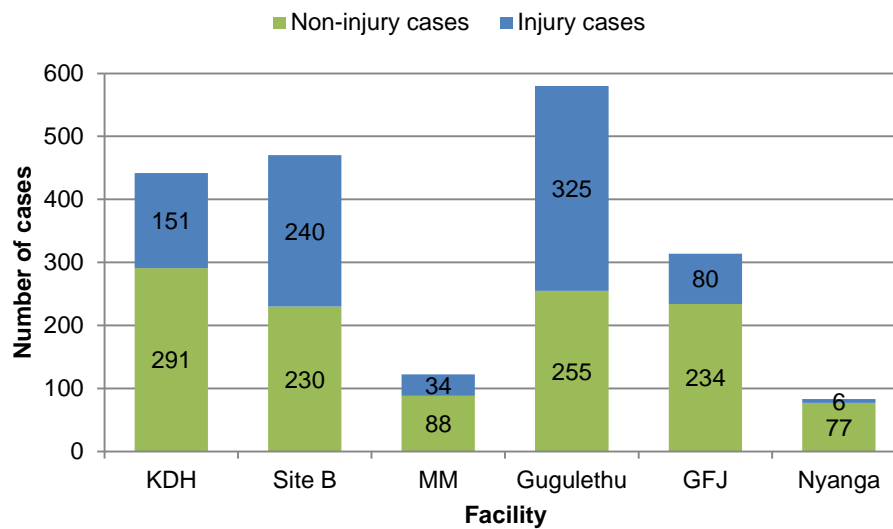
Baseline characteristics of total cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n= 442	Site B n= 470	MM n=122	Nyanga n= 83	Gugulethu n=580	GFJ n=314	N=2011
Patient demographics							
Gender, n (%)							
Male	212 (48.0)	233 (49.6)	52 (42.6)	38 (45.8)	307 (52.9)	140 (44.6)	982 (48.8)
Female	230 (52.0)	237 (50.4)	70 (57.4)	45 (54.2)	273 (47.1)	174 (55.4)	1 029 (51.2)
Race, n (%)							
Black	430 (97.3)	467 (99.4)	121 (99.2)	82 (98.8)	566 (97.6)	182 (58.0)	1 848 (91.9)
Coloured	9 (2.0)	1 (0.2)	1 (0.8)	1 (1.2)	13 (2.2)	129 (41.1)	154 (7.7)
Asian	3 (0.7)	2 (0.4)	0 (0)	0 (0)	1 (0.2)	3 (1.0)	9 (0.5)
White	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0.0)
Age group, n (%)							
<1	7 (1.6)	16 (3.4)	4 (3.3)	0 (0)	19 (3.3)	1 (0.3)	47 (2.3)
1-4	5 (1.1)	33 (7.0)	12 (9.8)	4 (4.8)	52 (9.0)	7 (2.2)	113 (5.6)
5-9	9 (2.0)	17 (3.6)	6 (4.9)	1 (1.2)	30 (5.2)	3 (1.0)	66 (3.3)
10-14	7 (1.6)	10 (2.1)	2 (1.6)	4 (4.8)	14 (2.4)	5 (1.6)	42 (2.1)
15-19	55 (12.4)	33 (7.0)	3 (2.5)	5 (6.0)	43 (7.4)	22 (7.0)	161 (8.0)
20-24	69 (15.6)	73 (15.5)	7 (5.7)	10 (12.0)	73 (12.6)	33 (10.5)	265 (13.2)
25-34	124 (28.1)	134 (28.5)	16 (13.1)	16 (19.3)	152 (26.2)	78 (24.8)	520 (25.9)
35-44	61 (13.8)	75 (16.0)	20 (16.4)	12 (14.5)	79 (13.6)	57 (18.2)	304 (15.1)
45-54	50 (11.3)	42 (8.9)	32 (26.2)	12 (14.5)	53 (9.1)	41 (13.1)	230 (11.4)
55-64	31 (7.0)	17 (3.6)	13 (10.7)	11 (13.3)	28 (4.8)	31 (9.9)	131 (6.5)
>65	24 (5.4)	18 (3.8)	7 (5.7)	8 (9.6)	37 (6.4)	35 (11.2)	129 (6.4)
Unknown age	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.3)	3 (0.2)
Day of week, n (%)							
Monday	63 (14.3)	56 (11.9)	34 (27.9)	26 (31.3)	156 (26.9)	50 (15.9)	385 (19.1)
Tuesday	48 (10.9)	67 (14.3)	17 (13.9)	10 (12.1)	47 (8.1)	44 (14.0)	233 (11.6)
Wednesday	123 (27.8)	65 (13.8)	24 (19.7)	17 (20.5)	61 (10.5)	45 (14.3)	335 (16.7)
Thursday	126 (28.5)	53 (11.3)	31 (25.4)	8 (9.6)	40 (6.9)	55 (17.5)	313 (15.6)
Friday	5 (1.1)	56 (11.9)	15 (12.3)	21 (25.3)	36 (6.2)	44 (14.0)	177 (8.8)
Saturday	26 (5.9)	47 (10.0)	1 (0.8)	0 (0)	112 (19.3)	32 (10.2)	218 (10.8)
Sunday	51 (11.5)	126 (26.8)	0 (0)	1 (1.2)	128 (22.1)	44 (14.0)	350 (17.4)
Triage code, n (%)							
Red	98 (22.2)	7 (1.5)	9 (7.4)	0 (0)	13 (2.2)	16 (5.1)	143 (7.1)
Orange	54 (12.2)	169 (36.0)	15 (12.3)	0 (0)	131 (22.6)	65 (20.7)	434 (21.6)
Yellow	193 (43.7)	262 (55.7)	73 (59.8)	1 (1.2)	345 (59.5)	34 (10.8)	908 (45.2)
Green	49 (11.1)	11 (2.3)	20 (16.4)	76 (91.6)	74 (12.8)	6 (1.9)	236 (11.7)
Blue	0 (0)	1 (0.2)	5 (4.1)	0 (0)	1 (0.2)	0 (0)	7 (0.4)
Not recorded	48 (10.9)	20 (4.3)	0 (0)	6 (7.2)	16 (2.8)	193 (61.5)	283 (14.1)

A total of 2 011 cases were seen at all six facilities over the one-week period. Of these, 836 (41.6%) were injury cases. Table 3 and Figure 2 show the distribution of injury and non-injury cases by facility.

Table 3: Proportion of injury and non-injury cases by facility, n (%)

Facility	Injury cases	Non-injury cases	Total cases
KDH	151 (34.2)	291 (65.8)	442 (100.0)
Site B	240 (51.1)	230 (48.9)	470 (100.0)
MM	34 (27.9)	88 (72.1)	122 (100.0)
Gugulethu	325 (56.0)	255 (44.0)	580 (100.0)
GFJ	80 (25.5)	234 (74.5)	314 (100.0)
Nyanga	6 (7.2)	77 (92.8)	83 (100.0)
Total	836 (41.6)	1175 (58.4)	2011 (100.0)

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



5.2 Injury cases by facility

Table 4: Characteristics of injury cases interviewed by facility

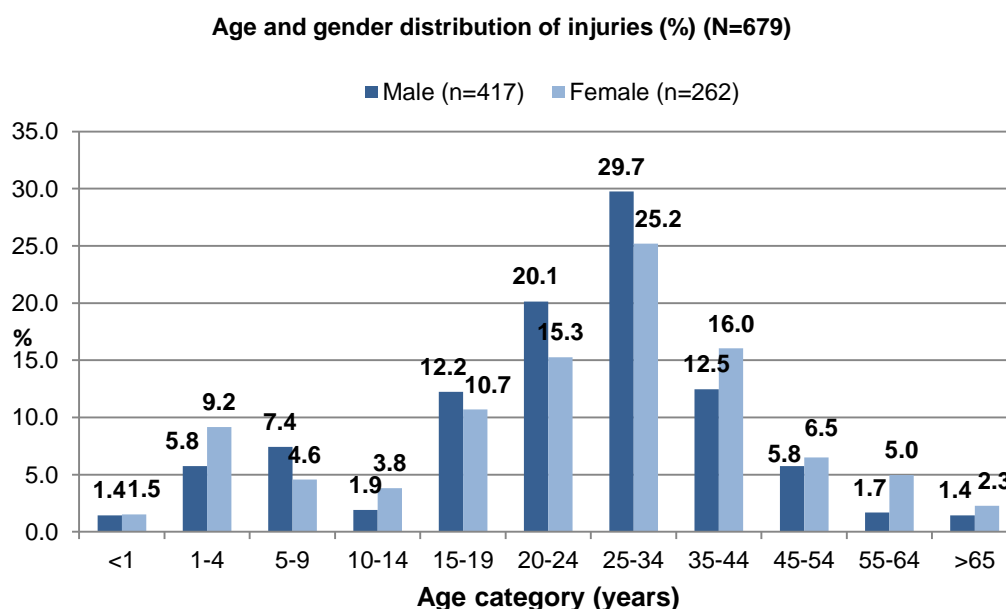
Characteristics of injury cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n=123	Site B n=195	MM n=26	Nyanga n=6	Gugulethu n=295	GFJ n=59	N=704
Patient demographics							
Gender, n (%)							
Male	77 (62.6)	121 (62.1)	14 (53.9)	3 (50.0)	187 (63.4)	31 (52.5)	433 (61.5)
Female	46 (37.4)	74 (38.0)	12 (46.2)	3 (50.0)	108 (36.6)	28 (47.5)	271 (38.5)
Race, n (%)							
Black	121 (98.4)	192 (98.5)	25 (96.2)	6 (100.0)	285 (96.6)	32 (54.2)	661 (93.9)
Coloured	2 (1.6)	1 (0.5)	1 (3.9)	0 (0)	9 (3.1)	26 (44.1)	39 (5.5)
Asian	0 (0)	2 (1.0)	0 (0)	0 (0)	1 (0.3)	1 (1.7)	4 (0.6)
White	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Age group, n (%)							
<1	1 (0.8)	4 (2.1)	1 (3.9)	0 (0)	4 (1.4)	0 (0)	10 (1.4)
1-4	3 (2.4)	13 (6.7)	6 (23.1)	1 (16.7)	20 (6.8)	6 (10.2)	49 (7.0)
5-9	7 (5.7)	12 (6.2)	1 (3.9)	1 (16.7)	20 (6.8)	2 (3.4)	43 (6.1)
10-14	2 (1.6)	7 (3.6)	1 (3.9)	0 (0)	7 (2.4)	2 (3.4)	18 (2.6)
15-19	23 (18.7)	17 (8.7)	1 (3.9)	1 (16.7)	30 (10.2)	11 (18.6)	83 (11.8)
20-24	28 (22.8)	33 (16.9)	7 (26.9)	1 (16.7)	54 (18.3)	10 (17.0)	127 (18.0)
25-34	35 (28.5)	54 (27.7)	4 (15.4)	1 (16.7)	90 (30.5)	11 (18.6)	198 (28.1)
35-44	10 (8.1)	29 (14.9)	4 (15.4)	1 (16.7)	43 (14.6)	9 (15.3)	96 (13.6)
45-54	6 (4.9)	14 (7.2)	1 (3.9)	0 (0)	15 (5.1)	4 (6.8)	43 (6.1)
55-64	5 (4.1)	7 (3.6)	0 (0)	0 (0)	7 (2.4)	1 (1.7)	21 (3.0)
>65	3 (2.4)	3 (1.5)	0 (0)	0 (0)	4 (1.4)	2 (3.4)	12 (1.7)
Unknown age	0 (0)	2 (1.0)	0 (0)	0 (0)	1 (0.3)	1 (1.7)	4 (0.6)
Day of week, n (%)							
Monday	14 (11.4)	19 (9.7)	7 (26.9)	1 (16.7)	35 (11.9)	9 (15.3)	85 (12.1)
Tuesday	13 (10.6)	17 (8.7)	0 (0)	1 (16.7)	14 (4.8)	3 (5.1)	48 (6.8)
Wednesday	7 (5.7)	22 (11.3)	9 (34.6)	0 (0)	31 (10.5)	14 (23.7)	83 (11.8)
Thursday	13 (10.6)	17 (8.7)	1 (3.9)	2 (33.3)	26 (8.8)	5 (8.5)	64 (9.1)
Friday	5 (4.1)	19 (9.7)	4 (15.4)	1 (16.7)	36 (12.2)	4 (6.8)	69 (9.8)
Saturday	23 (18.7)	44 (22.6)	2 (7.7)	1 (16.7)	65 (22.0)	9 (15.3)	144 (20.5)
Sunday	48 (39.0)	57 (29.2)	3 (11.5)	0 (0)	88 (29.8)	15 (25.4)	211 (30.0)
Triage code, n (%)							
Red	30 (24.4)	3 (1.5)	3 (11.5)	0 (0)	6 (2.0)	4 (6.8)	46 (6.5)
Orange	24 (19.5)	58 (29.7)	10 (38.5)	0 (0)	48 (16.3)	8 (13.6)	148 (21.0)
Yellow	42 (34.2)	124 (63.6)	13 (50.0)	1 (16.7)	235 (79.7)	8 (13.6)	423 (60.1)
Green	9 (7.3)	5 (2.6)	0 (0)	5 (83.3)	5 (1.7)	2 (3.4)	26 (3.7)
Blue	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Not recorded	18 (14.6)	5 (2.6)	0 (0)	0 (0)	1 (0.3)	37 (62.7)	61 (8.7)
Alcohol, n (%)							
Yes/suspected	51 (41.5)	58 (29.7)	7 (26.9)	0 (0)	129 (43.7)	18 (30.5)	263 (37.4)
No	51 (41.5)	116 (59.5)	19 (73.1)	6 (100)	143 (48.5)	28 (47.5)	363 (51.6)
Unknown	21 (17.1)	21 (10.8)	0 (0)	0 (0)	23 (7.8)	13 (22.0)	78 (11.1)
Drugs, n (%)							
Yes/suspected	14 (11.4)	25 (12.8)	5 (19.2)	0 (0)	27 (9.2)	3 (5.1)	74 (10.5)
No	79 (64.2)	144 (73.9)	21 (80.8)	6 (100)	241 (81.7)	35 (59.3)	526 (74.7)
Unknown	30 (24.4)	26 (13.3)	0 (0)	0 (0)	27 (9.2)	21 (35.6)	104 (14.8)
Cause of injury, n (%)							
Violence	84 (68.3)	111 (56.9)	12 (46.2)	1 (16.7)	186 (63.1)	43 (72.9)	437 (62.1)
Transport	17 (13.8)	13 (6.7)	0 (0)	0 (0)	31 (10.5)	4 (6.8)	65 (9.2)
Unintentional	17 (13.8)	70 (35.9)	14 (53.9)	5 (83.3)	69 (23.4)	11 (18.6)	186 (26.4)
Self-harm	5 (4.1)	1 (0.5)	0 (0)	0 (0)	9 (3.1)	1 (1.7)	16 (2.3)

Characteristics of injury cases seen by facility							
Area	Khayelitsha			Nyanga			Total
Facility	KDH n=123	Site B n=195	MM n=26	Nyanga n=6	Gugulethu n=295	GFJ n=59	N=704
Time of injury, n (%)							
7am- 1pm	20 (16.3)	47 (24.1)	13 (50.0)	2 (33.3)	48 (16.3)	8 (13.6)	138 (19.6)
1pm-7pm	26 (21.1)	60 (30.8)	6 (23.1)	3 (50.0)	79 (26.8)	21 (35.6)	195 (27.7)
7pm-1am	42 (34.2)	67 (34.4)	5 (19.2)	1 (16.7)	107 (36.3)	22 (37.3)	244 (34.7)
1am-7am	35 (28.5)	21 (10.8)	2 (7.7)	0 (0)	61 (20.7)	8 (13.6)	127 (18.0)
Placement, n (%)							
Discharged	41 (33.3)	135 (69.2)	20 (76.9)	5 (83.3)	107 (36.3)	31 (52.5)	339 (48.2)
Admitted to ward	22 (17.9)	0 (0)	0 (0)	0 (0)	0 (0)	6 (10.2)	28 (4.0)
Admitted to ICU	4 (3.3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (0.6)
Died	1 (0.8)	0 (0)	0 (0)	0 (0)	1 (0.3)	0 (0)	2 (0.3)
Absconded	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.3)	0 (0)	1 (0.1)
Referred	3 (2.4)	14 (7.2)	0 (0)	0 (0)	8 (2.7)	0 (0)	25 (3.6)
Transferred	3 (2.4)	6 (3.1)	6 (23.1)	0 (0)	50 (17.0)	1 (1.7)	66 (9.4)
Information not available at time of interview	47 (38.2)	40 (20.5)	0 (0)	1 (16.7)	122 (41.4)	18 (30.5)	228 (32.4)
Unknown	2 (1.6)	0 (0)	0 (0)	0 (0)	6 (2.0)	3 (5.1)	11 (1.6)

5.3 Age distribution of injuries

The majority of injuries among males (62.0%) occurred in the 15 to 34 year age group. Among women, most injuries occurred in the 15 to 44 year age group (67.2%). For both genders, the 25 to 34 year age group was the most affected. See Figure 3.

Figure 3: Age distribution of injuries by gender^a



^a Excludes four cases in which the age was not established.

5.4 Cause of injury

Overall, 683 first-presentation injury cases were interviewed. Of these, 61.3% were as a result of violence, 26.8% were unintentional injuries, and 9.5% were transport-related. Only 2.3% were due to self-harm. See Table 5. For ranking of specific causes of injuries by age category, see Table 11 in Appendix A.

Table 5: Overview of main causes of injury

Cause of injury	n (%)
Violence	419 (61.3)
Transport	65 (9.5)
Unintentional	183 (26.8)
Self-harm	16 (2.3)
Total	683 (100.0)^b

5.4.1 Violent injuries

There were 419 violent injury cases reported, the majority of these being males (68.0%). Most violent injuries were triaged yellow (58.2%) and occurred on Sunday (34.4%) and Saturday (22.9%). The most common specific method reported was sharp object (69.5%) among males and push/kick/punch (33.6%) among females. Overall, the most common type of violence was interpersonal (44.4%). Among males, interpersonal violence and crime-related violence were the leading types of violence (39.0% and 36.5% respectively). Among women, however, interpersonal violence accounted for over half of all violent injuries (56.0%), and sexual violence was the second-leading type of violence (23.9%). See Table 6.

Of women with violent injuries, 29.1% were assaulted by a spouse or partner. Among men, 22.1% reported a community member as the perpetrator. Although overall, 38.6% of males were injured by one perpetrator, a further 26.3% of males reported being assaulted by four or more perpetrators. Alcohol use was reported or suspected in over half (53.2%) of all violent injuries. Drug use was either reported or suspected in 15.0% of violent injuries.

^b This total number of injuries excludes 21 duplicate patients who were referred from one study facility to another. Only the initial presentation is included.

Table 6: Characteristics of violent injuries by gender

Characteristics of violent injuries by gender			
	Male, n (%) n= 285	Female, n (%) n=134	Total, n (%) N=419
Age category, n (%)			
<1	1 (0.4)	0 (0)	1 (0.2)
1-4	0 (0)	8 (6.0)	8 (1.9)
5-9	4 (1.4)	3 (2.2)	7 (1.7)
10-14	1 (0.4)	3 (2.2)	4 (1.0)
15-19	44 (15.4)	18 (13.4)	62 (14.8)
20-24	70 (24.6)	24 (17.9)	94 (22.4)
25-34	97 (34.0)	40 (29.9)	137 (32.7)
35-44	41 (14.4)	26 (19.4)	67 (16.0)
45-54	18 (6.3)	5 (3.7)	23 (5.5)
55-64	4 (1.4)	6 (4.5)	10 (2.4)
>65	3 (1.1)	0 (0)	3 (0.7)
Unknown	2 (0.7)	1 (0.8)	3 (0.7)
Triage code, n (%)			
Red	26 (9.1)	3 (2.2)	29 (6.9)
Orange	74 (26.0)	13 (9.7)	87 (20.8)
Yellow	164 (57.5)	80 (59.7)	244 (58.2)
Green	7 (2.5)	3 (2.2)	10 (2.4)
Unknown	14 (4.9)	35 (26.1)	49 (11.7)
Day of the week, n (%)			
Monday	31 (10.9)	19 (14.2)	50 (11.9)
Tuesday	17 (6.0)	11 (8.2)	28 (6.7)
Wednesday	31 (10.9)	7 (5.2)	38 (9.1)
Thursday	19 (6.7)	9 (6.7)	28 (6.7)
Friday	20 (7.0)	15 (11.2)	35 (8.4)
Saturday	65 (22.8)	31 (23.1)	96 (22.9)
Sunday	102 (35.8)	42 (31.3)	144 (34.4)
Time, n (%)			
7am-1pm	37 (13.0)	20 (14.9)	57 (13.6)
1pm-7pm	61 (21.4)	31 (23.1)	92 (22.0)
7pm-1am	119 (41.8)	58 (43.3)	177 (42.2)
1am-7am	68 (23.9)	25 (18.7)	93 (22.2)
Specific cause, n (%)			
Sharp object	198 (69.5)	39 (29.1)	237 (56.6)
Blunt object	36 (12.6)	24 (17.9)	60 (14.3)
Firearm	5 (1.8)	2 (1.5)	7 (1.7)
Push/kick/punch	31 (10.9)	45 (33.6)	76 (18.1)
Human bite	1 (0.4)	4 (3.0)	5 (1.2)
Choking	2 (0.7)	0 (0)	2 (0.5)
Fire burn	0 (0)	1 (0.8)	1 (0.2)
Other burn	3 (1.1)	1 (0.8)	4 (1.0)
Poisoning	1 (0.4)	0 (0)	1 (0.2)
Other burn	3 (1.1)	16 (11.9)	19 (4.5)
Unknown	5 (1.8)	2 (1.5)	7 (1.7)

Characteristics of violent injuries by gender			
	Male, n (%) n= 285	Female, n (%) n=134	Total, n (%) N=419
Type of violence, n (%)			
Rape/sexual	3 (1.1)	32 (23.9)	35 (8.4)
Child abuse	2 (0.7)	1 (0.8)	3 (0.7)
Gang-related	31 (10.9)	4 (3.0)	35 (8.4)
Crime-related	104 (36.5)	14 (10.5)	118 (28.2)
Interpersonal	111 (39.0)	75 (56.0)	186 (44.4)
Other	9 (3.2)	1 (0.8)	10 (2.4)
Unknown	25 (8.8)	7 (5.2)	32 (7.6)
Perp. victim relationship, n (%)			
Spouse/partner	11 (3.9)	39 (29.1)	50 (11.9)
Ex-intimate partner	1 (0.4)	4 (3.0)	5 (1.2)
Parent	3 (1.1)	5 (3.7)	8 (1.9)
Other relative	15 (5.3)	12 (9.0)	27 (6.4)
Unrelated caregiver	3 (1.1)	4 (3.0)	7 (1.7)
Friend	17 (6.0)	8 (6.0)	25 (6.0)
Neighbour	9 (3.2)	6 (4.5)	15 (3.6)
Community member	63 (22.1)	17 (12.7)	80 (19.1)
Acquaintance	35 (12.3)	8 (6.0)	43 (10.3)
Police	1 (0.4)	0 (0)	1 (0.2)
Other	12 (4.2)	6 (4.5)	18 (4.3)
Unknown	115 (40.4)	25 (18.7)	140 (33.4)
Gender of perp., n (%)			
Male	226 (79.3)	101 (75.4)	327 (78.0)
Female	16 (5.6)	23 (17.2)	39 (9.3)
Unknown	43 (15.1)	10 (7.5)	53 (12.7)
Number of perp., n (%)			
1	110 (38.6)	105 (78.4)	215 (51.3)
2	28 (9.8)	8 (6.0)	36 (8.6)
3	27 (9.5)	3 (2.2)	30 (7.2)
4 or more	75 (26.3)	8 (6.0)	83 (19.8)
Unknown	45 (15.8)	10 (7.5)	55 (13.1)
Alcohol, n (%)			
Yes/suspected	158 (55.4)	65 (48.5)	223 (53.2)
No	86 (30.2)	56 (41.8)	142 (33.9)
Unknown	41 (14.4)	13 (9.7)	54 (12.9)
Drugs, n (%)			
Yes/suspected	39 (13.7)	24 (17.9)	63 (15.0)
No	193 (67.7)	86 (64.2)	279 (66.6)
Unknown	53 (18.6)	24 (17.9)	77 (18.4)
Placement, n (%)			
Discharged	109 (38.3)	85 (63.4)	194 (46.3)
Admitted to ward	11 (3.9)	1 (0.8)	12 (2.9)
Admitted to ICU	4 (1.4)	0 (0)	4 (1.0)
Died	2 (0.7)	0 (0)	2 (0.5)
Absconded	0 (0)	1 (0.8)	1 (0.2)
Referred	13 (4.6)	3 (2.2)	16 (3.8)
Transferred	34 (11.9)	9 (6.7)	43 (10.3)
Information not available at time of interview	107 (37.5)	34 (25.4)	141 (33.7)
Unknown	5 (1.8)	1 (0.8)	6 (1.4)

5.4.2 Transport-related injuries

Table 7 gives an overview of the characteristics of transport-related injuries by gender. The majority of such injuries involved pedestrians (63.1%). The most common vehicles involved were cars or bakkies^c (50.8%) and minibus taxis (30.8%). The two age groups most affected by transport injuries were those aged 25 to 34 years and 5 to 9 years. In the latter group, young boys presented more readily than girls.

Table 7: Characteristics of transport-related injuries by gender

Characteristics of transport-related injuries by gender			
	Male, n (%) n= 39	Female, n (%) n=26	Total, n (%) N=65
Age category, n (%)			
<1	1 (2.6)	0 (0)	1 (1.5)
1-4	1 (2.6)	3 (11.5)	4 (6.2)
5-9	10 (25.6)	3 (11.5)	13 (20.0)
10-14	2 (5.1)	0 (0)	2 (3.1)
15-19	2 (5.1)	2 (7.7)	4 (6.2)
20-24	5 (12.8)	3 (11.5)	8 (12.3)
25-34	8 (20.5)	7 (26.9)	15 (23.1)
35-44	3 (7.7)	2 (7.7)	5 (7.7)
45-54	2 (5.1)	4 (15.4)	6 (9.2)
55-64	2 (5.1)	1 (3.9)	3 (4.6)
>65	2 (5.1)	1 (3.9)	3 (4.6)
Unknown	1 (2.6)	0 (0)	1 (1.5)
Triage, n (%)			
Red	8 (20.5)	1 (3.9)	9 (13.9)
Orange	10 (25.6)	7 (26.9)	17 (26.2)
Yellow	18 (46.2)	17 (65.4)	35 (53.9)
Green	0 (0)	0 (0)	0 (0)
Unknown	3 (7.7)	1 (3.9)	4 (6.2)
Day of the week, n (%)			
Monday	6 (15.4)	3 (11.5)	9 (13.9)
Tuesday	1 (2.6)	0 (0)	1 (1.5)
Wednesday	7 (18.0)	4 (15.4)	11 (16.9)
Thursday	3 (7.7)	2 (7.7)	5 (7.7)
Friday	4 (10.3)	5 (19.2)	9 (13.9)
Saturday	6 (15.4)	5 (19.2)	11 (16.9)
Sunday	12 (30.8)	7 (26.9)	19 (29.2)
Time, n (%)			
7am-1pm	10 (25.6)	7 (26.9)	17 (26.2)
1pm-7pm	14 (35.9)	9 (34.6)	23 (35.4)
7pm-1am	8 (20.5)	5 (19.2)	13 (20.0)
1am-7am	7 (18.0)	5 (19.2)	12 (18.5)
Traffic user, n (%)			
Driver/rider/cyclist	3 (7.7)	1 (3.9)	4 (6.2)
Passenger	9 (23.1)	7 (26.9)	16 (24.6)
Pedestrian	25 (65.1)	16 (61.5)	41 (63.1)
Other	0 (0)	1 (3.9)	1 (1.5)
Unknown	2 (5.1)	1 (3.9)	3 (4.6)

^c "Bakkie" is a term used in South Africa to refer to a light truck or pick-up truck.

Characteristics of transport-related injuries by gender			
	Male, n (%) n= 39	Female, n (%) n=26	Total, n (%) N=65
Vehicle involved, n (%)			
Car/bakkie	22 (56.4)	11 (42.3)	33 (50.8)
Minibus taxi	10 (25.6)	10 (38.5)	20 (30.8)
Bus	0 (0)	1 (3.9)	1 (1.5)
Truck	2 (5.1)	0 (0)	2 (3.1)
Motorcycle	2 (5.1)	0 (0)	2 (3.1)
Bicycle	0 (0)	1 (3.9)	1 (1.5)
Other	0 (0)	1 (3.9)	1 (1.5)
Unknown	3 (7.7)	2 (7.7)	5 (7.7)
Alcohol, n (%)			
Yes/suspected	12 (30.8)	4 (15.4)	16 (24.6)
No	23 (59.0)	20 (76.9)	43 (66.2)
Unknown	4 (10.3)	2 (7.7)	6 (9.2)
Drugs, n (%)			
Yes/suspected	3 (7.7)	1 (3.9)	4 (6.2)
No	31 (79.5)	22 (84.6)	53 (81.5)
Unknown	5 (12.8)	3 (11.5)	8 (12.3)
Placement, n (%)			
Discharged	9 (23.1)	14 (53.9)	23 (35.4)
Admitted to ward	2 (5.1)	4 (15.4)	6 (9.2)
Transferred	8 (20.5)	1 (3.9)	9 (13.9)
Information not available at time of interview	17 (43.6)	7 (26.9)	24 (36.9)
Unknown	3 (7.7)	0 (0)	3 (4.6)

5.4.3 Unintentional injuries

Table 8 shows the characteristics of unintentional injuries by gender. The majority of unintentional injuries were reported to be due to falls (46.6%), hot liquid burns (14.2%) and sharp objects (13.1%).

Table 8: Characteristics of unintentional injuries by gender

Characteristics of unintentional injuries by gender			
	Male, n (%) n=90	Female, n (%) n=93	Total, n (%) N=183
Age category, n (%)			
<1	4 (4.4)	4 (4.3)	8 (4.4)
1-4	23 (25.6)	13 (14.0)	36 (19.7)
5-9	17 (18.9)	6 (6.5)	23 (12.6)
10-14	5 (5.6)	7 (7.5)	12 (6.6)
15-19	4 (4.4)	5 (5.4)	9 (4.9)
20-24	8 (8.9)	9 (9.7)	17 (9.3)
25-34	16 (17.8)	17 (18.3)	33 (18.0)
35-44	7 (7.8)	13 (14.0)	20 (10.9)
45-54	4 (4.4)	8 (8.6)	12 (6.6)
55-64	1 (1.1)	6 (6.5)	7 (3.8)
>65	1 (1.1)	5 (5.4)	6 (3.3)
Unknown	0 (0)	0 (0)	0 (0)
Triage, n (%)			
Red	3 (3.3)	2 (2.2)	5 (2.7)
Orange	18 (20.0)	11 (11.8)	29 (15.9)
Yellow	59 (65.6)	71 (76.3)	130 (71.0)
Green	6 (6.7)	6 (6.5)	12 (6.6)
Unknown	4 (4.4)	3 (3.2)	7 (3.8)
Day of the Week, n (%)			
Monday	10 (11.1)	15 (16.1)	25 (13.7)
Tuesday	6 (6.7)	7 (7.5)	13 (7.1)
Wednesday	18 (20.0)	14 (15.1)	32 (17.5)
Thursday	15 (16.7)	12 (12.9)	27 (14.8)
Friday	11 (12.2)	9 (9.7)	20 (10.9)
Saturday	10 (11.1)	19 (20.4)	29 (15.9)
Sunday	20 (22.2)	17 (18.3)	37 (20.2)
Time, n (%)			
7am-1pm	35 (38.9)	28 (30.1)	63 (34.4)
1pm-7pm	35 (38.9)	31 (33.3)	66 (36.1)
7pm-1am	17 (18.9)	23 (24.7)	40 (21.9)
1am-7am	3 (3.3)	11 (11.8)	14 (7.7)
Alcohol, n (%)			
Yes/suspected	6 (6.7)	6 (6.5)	12 (6.6)
No	81 (90.0)	79 (85.0)	160 (87.4)
Unknown	3 (3.3)	8 (8.6)	11 (6.0)
Drugs, n (%)			
Yes/suspected	1 (1.1)	2 (2.2)	3 (1.6)
No	85 (94.4)	84 (90.3)	169 (92.4)
Unknown	4 (4.4)	7 (7.5)	11 (6.0)

Characteristics of unintentional injuries by gender			
	Male, n (%) n= 90	Female, n (%) n=93	Total, n (%) N=183
Specific cause/method, n (%)			
Sharp object	14 (15.6)	10 (10.8)	24 (13.1)
Blunt object	5 (5.6)	0 (0)	5 (2.7)
Hot liquid burn	14 (15.6)	12 (12.9)	26 (14.2)
Chemical burn	1 (1.1)	0 (0)	1 (0.6)
Fire burn	2 (2.2)	1 (1.1)	3 (1.6)
Fall on level	25 (27.8)	41 (44.1)	66 (36.1)
Fall on stairs	4 (4.4)	4 (4.3)	8 (4.4)
Fall from height	5 (5.6)	6 (6.5)	11 (6.1)
Jump	1 (1.1)	2 (2.2)	3 (1.6)
Caught between/structures	4 (4.4)	3 (3.2)	7 (3.8)
Paraffin poisoning	0 (0)	2 (2.2)	2 (1.1)
Other poisoning	2 (2.2)	0 (0)	2 (1.1)
Dog bite	4 (4.4)	5 (5.4)	9 (4.9)
Machinery	2 (2.2)	0 (0)	2 (1.1)
Other	6 (6.7)	5 (5.4)	11 (6.0)
Unknown	1 (1.1)	2 (2.2)	3 (1.6)
Placement, n (%)			
Discharged	55 (61.1)	51 (54.8)	106 (57.9)
Admitted to ward	0 (0)	4 (4.3)	4 (2.2)
Referred	0 (0)	4 (4.3)	4 (2.2)
Transferred	10 (11.1)	3 (3.2)	13 (7.1)
Information not available at time of interview	25 (27.8)	30 (32.3)	55 (30.1)
Unknown	0 (0)	1 (1.1)	1 (0.6)

5.4.4 Self-harm injuries

Table 9 shows the characteristics of self-harm injuries by gender. The majority were due to other poisoning (62.5%): this is poisoning due to any substance other than paraffin; these were primarily cases reported as “overdose”.

Table 9: Characteristics of self-harm injuries by gender

Characteristics of self-harm injuries by gender			
	Male, n (%) n= 6	Female, n (%) n=10	Total, n (%) N=16
Age category, n (%)			
<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	0 (0)	0 (0)	0 (0)
15-19	1 (16.7)	3 (30.0)	4 (25.0)
20-24	1 (16.7)	4 (40.0)	5 (31.3)
25-34	3 (50.0)	2 (20.0)	5 (31.3)
35-44	1 (16.7)	1 (10.0)	2 (12.5)
45-54	0 (0)	0 (0)	0 (0)
55-64	0 (0)	0 (0)	0 (0)
>65	0 (0)	0 (0)	0 (0)
Unknown	0 (0)	0 (0)	0 (0)
Triage, n (%)			
Red	0 (0)	0 (0)	0 (0)
Orange	4 (66.7)	4 (40.0)	8 (50.0)
Yellow	2 (33.3)	2 (20.0)	4 (25.0)
Green	0 (0)	3 (30.0)	3 (18.8)
Unknown	0 (0)	1 (10.0)	1 (6.3)
Day of the week, n (%)			
Monday	0 (0)	0 (0)	0 (0)
Tuesday	2 (33.3)	1 (10.0)	3 (18.8)
Wednesday	0 (0)	2 (20.0)	2 (12.5)
Thursday	0 (0)	2 (20.0)	2 (12.5)
Friday	0 (0)	2 (20.0)	2 (12.5)
Saturday	3 (50.0)	2 (20.0)	5 (31.3)
Sunday	1 (16.7)	1 (10.0)	2 (12.5)
Time, n (%)			
7am-1pm	0 (0)	1 (10.0)	1 (6.3)
1pm-7pm	2 (33.3)	6 (60.0)	8 (50.0)
7pm-1am	4 (66.7)	2 (20.0)	6 (37.5)
1am-7am	0 (0)	1 (10.0)	1 (6.3)
Specific cause/method, n (%)			
Sharp object	2 (33.3)	1 (10.0)	3 (18.8)
Hot liquid burn	0 (0)	1 (10.0)	1 (6.3)
Chemical burn	0 (0)	1 (10.0)	1 (6.3)
Other poisoning	4 (66.7)	6 (60.0)	10 (62.5)
Unknown	0 (0)	1 (10.0)	1 (6.3)
Alcohol, n (%)			
Yes/suspected	1 (16.7)	1 (10.0)	2 (12.5)
No	4 (66.7)	8 (80.0)	12 (75.0)
Unknown	1 (16.7)	1 (10.0)	2 (12.5)

Characteristics of self-harm injuries by gender			
	Male, n (%) n= 6	Female, n (%) n=10	Total, n (%) N=16
Drugs, n (%)			
Yes/suspected	1 (16.7)	1 (10.0)	2 (12.5)
No	4 (66.7)	8 (80.0)	12 (75.0)
Unknown	1 (16.7)	1 (10.0)	2 (12.5)
Placement, n (%)			
Discharged	2 (33.3)	4 (40.0)	6 (37.5)
Admitted to ward	1 (16.7)	3 (30.0)	4 (25.0)
Referred	1 (16.7)	1 (10.0)	2 (12.5)
Transferred	1 (16.7)	0 (0)	1 (6.3)
Information not available at time of interview	0 (0)	2 (20.0)	2 (12.5)
Unknown	1 (16.7)	0 (0)	1 (6.3)

6. Alcohol and drug use and injuries

Overall, 37.4% of all injuries had obvious or suspected alcohol use. With regard to violent injuries among males and females, 55.4% and 48.5% were associated with alcohol use respectively (see Figure 4 and Figure 5). With regard to drug use, 10.5% of injury cases overall reported or were suspected to have used drugs; this proportion was similar among males and females. Information on the specific type of drug was not collected.

Figure 4: Probable alcohol use and cause of injury among males

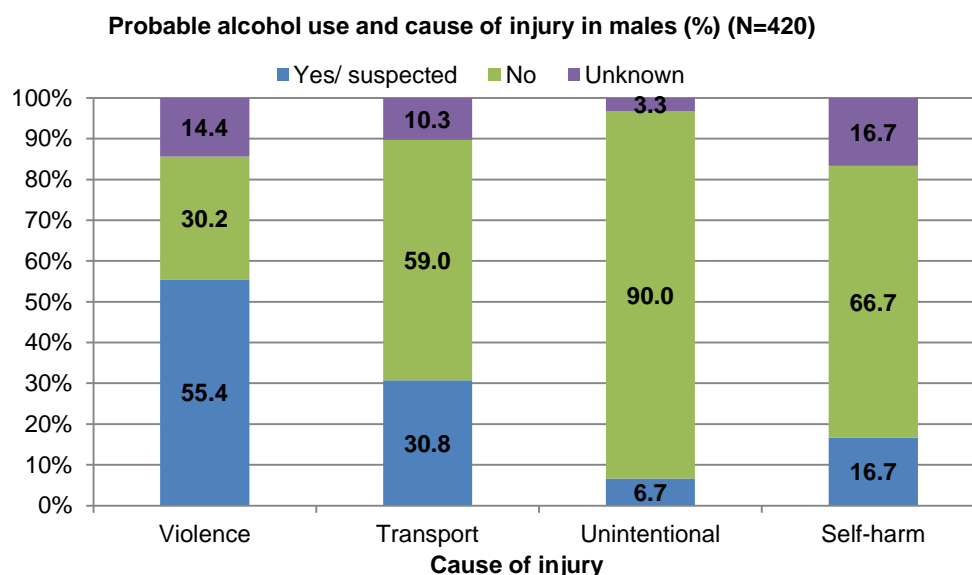
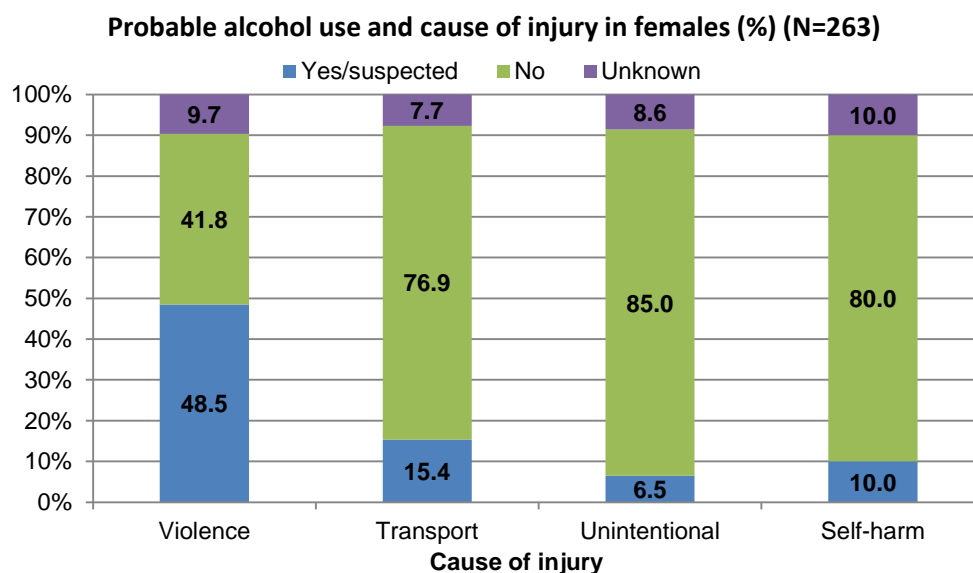


Figure 5: Probable alcohol use and cause of injury among females



7. Location of injuries

Table 10: Location of injury by area and sub-area

Location of injury by area and sub-area	
Area/ sub-area	n (%)
Khayelitsha	
n=283	
Enkanini	10 (3.5)
Harare	26 (9.2)
Ilitha Park	6 (2.1)
Khaya	20 (7.1)
Kuyasa	11 (3.9)
Makaya	14 (5.0)
Makhaza	16 (5.7)
Site B	89 (31.5)
Site C	39 (13.8)
Town 2	21 (7.4)
Unknown	31 (11.0)
Nyanga	
n=83	
New Crossroads	12 (14.5)
Old Locations	8 (9.6)
Mau Mau	3 (3.6)
Mkhonto	1 (1.2)
Zwelitsha	5 (6.0)
White City	1 (1.2)
Emaholweni (Terminus Rd)	9 (10.8)
Emaholweni (Lusaka)	2 (2.4)
KTC	20 (24.1)
Lusaka	7 (8.4)
Other sub-area Nyanga	10 (12.1)
Unknown sub-area Nyanga	5 (6.0)

Location of injury by area and sub-area	
Area/ sub-area	n (%)
Gugulethu	n=135
Lotus Park	5 (3.7)
Kwakhi-khi	4 (3.0)
Section 1	23 (17.0)
Section 2	36 (26.7)
Thambo Village	4 (3.0)
Malunga Park	1 (0.7)
Station Park	1 (0.7)
Section 3	22 (16.3)
Section 4	6 (4.4)
Thambo Square	1 (0.7)
Other sub-area Gugulethu	21 (15.6)
Unknown sub-area Gugulethu	11 (8.2)
Phillipi	n=69
Sweet Home Farm	4 (5.8)
Unknown sub-area Phillipi	6 (8.7)
Other sub-area Phillipi	59 (85.5)
Crossroads	n=20
Known sub-area Crossroads	13 (65.0)
Unknown sub-area	5 (25.0)
Other sub-area Crossroads	2 (10.0)

The majority of injuries in Khayelitsha were reported to have occurred in Site B (31.5%) and Site C (13.8%). In Nyanga, KTC had the highest proportion of injuries (24.1%) followed by New Crossroads (14.5%). In Gugulethu, Section 2 (26.7%) had the highest proportion of injuries, followed by Section 1 (17.0%) and Section 3 (16.3%). See Table 10.

8. Summary

Injuries due to interpersonal violence continue to be the predominant cause of injuries in these two communities, particularly among young males. As noted in the RA conducted in 2012, patterns of injury and particularly violent injury differ slightly by age and gender.² A high proportion of women are victims of physical blunt assault and sexual violence. Interestingly, among men, in addition to a high proportion of violence due to sharp force, there appears to be a higher-than-expected proportion of violence inflicted by multiple perpetrators.

9. References

1. WHO. 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. Durban: Health Systems Trust; February 2013.

10. Appendices

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

Table 11: League table showing leading specific causes of injury by age category

Rank	Age category											Overall ^d
	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	>65	
1	Fall on level 3	Hot liquid burn 9	Pedestrian 12	Sharp object 5	Sharp object viol. 38	Sharp object viol. 58	Sharp object viol. 87	Sharp object viol. 32	Sharp object viol. 15	Fall on level 4	Fall on level 4	Sharp object viol. 235
2	Fire burn 2	Sexual viol. 8	Fall on level 9	Hot liquid burn 4	Sexual viol. 11	Push/kick/punch 12	Blunt object viol. 22	Push/kick/punch 14	Fall on level 6	BleSharp object viol. 4	Pedestrian 3	Fall on level 63
3	Fall from height 1	Fall on level 7	Sharp object 3	Sexual viol. 4	Blunt object viol. 6	Blunt object viol. 10	Push/kick/punch 20	Blunt object viol. 12	Passenger 4	Blunt object viol. 3	Hot liquid burn 1	Blunt object viol. 59
4	Paraffin pois. 1	Fall from height 5	Other 3	Fall on level 3	Push/kick/punch 5	Sexual viol. 6	Fall on level 14	Fall on level 6	Push/kick/punch 3	Pedestrian 3	Other 1	Push/kick/punch 58
5	Blunt object viol. 1	Sharp object 3	Blunt object 2	Pedestrian 2	Fall on level 4	Pedestrian 6	Pedestrian 8	Hot liquid burn 3	Blunt object viol. 2	Push/kick/punch 2	Blunt object viol. 1	Pedestrian 41
6	Hot liquid burn 1	Fall on stairs 3	Hot liquid burn 2		Sharp object 2	Firearm viol. 5	Passenger 6	Caught betw/struck against 3		Fall on stairs 1	Push/kick/punch 1	Sexual viol. 35
	Unknown transport 1	Pedestrian 3	Dog bite 2		Other 2			Passenger 3		Dog bite 1	Unknown viol. 1	
			Blunt object viol. 2		Pedestrian 2					Unknown 1		
			Sexual viol. 2		Other pois. S.H. 2					Sexual viol. 1		

^d 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 B: Comparison to 2012 survey^e

Table 12: Proportion of injury and non-injury cases by facility 2012/2013 surveys

Facility	KDH	Site B	MM	Gugulethu	GFJ	Nyanga	Total
2012							
Injury	239 (47.8)	156 (56.9)	40 (25.3)	254 (52.5)	161 (28.0)	N/A	850 (42.7)
Non-injury ^f	261 (52.2)	118 (43.1)	118 (74.7)	230 (47.5)	414 (72.0)	N/A	1141 (57.3)
Total	500 (100.0)	274 (100.0)	158 (100.0)	575 (100.0)	484 (100.0)	N/A	1991 (100.0)
2013							
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 (48.9)	88 (72.1)	255 (44.0)	234 (74.5)	77 (92.8)	1175 (58.4)
Total	442 (100.0)	470 (100.0)	122 (100.0)	580 (100.0)	314 (100.0)	83 (100.0)	2011 (100.0)

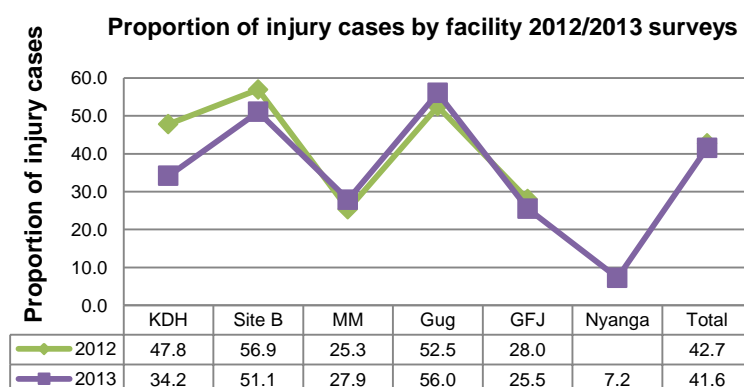
Table 13: Proportion of injury cases by cause 2012/2013

	Violence	Sexual assault ^g	Transport	Unintentional	Self-harm	Unknown	Total
2012	529 (62.2)	58 (6.8)	106 (12.5)	168 (19.8)	20 (2.4)	27 (3.2)	850 (100.0)
2013	419 (61.4)	35 (5.1)	65 (9.5)	183 (26.8)	16 (2.3)	N/A	683 (100.0)

Table 14: Probable alcohol use by gender and cause of injury

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)
Total	371 (100.0)	158 (100.0)	529 (100.0)	64 (100.0)	42 (100.0)	106 (100.0)
2013						
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)
Total	285 (100.0)	134 (100.0)	419 (100.0)	39 (100.0)	26 (100.0)	65 (100.0)

Figure 6: Proportion of injury and non-injury cases by facility 2012 and 2013 surveys



^e Data for 2012 exclude data from Elsie's River CHC which were included in the RA conducted in 2012 survey.

^f Total number of non-injury cases for 2012 includes 17 unknown cases. See Reference 2 for further details.

^g Proportion indicated here represents sexual assault cases as a proportion of total injury cases.

Appendix C: Data collection form

FACILITY CODE <input style="width:100%;" type="text"/>		HOSP. FOLDER NO. <input style="width:100%;" type="text"/>		STUDY NO. <input style="width:100%;" type="text"/>					
GENDER <input type="checkbox"/> M <input type="checkbox"/> F		RACE <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> W							
DATE OF BIRTH <input type="text"/> d <input type="text"/> d <input type="text"/> m <input type="text"/> m <input type="text"/> y <input type="text"/> y <input type="text"/> y <input type="text"/> y		IF DOB UNKNOWN CAPTURE AGE →		AGE <input style="width:100%;" type="text"/>					
Is this an interview?		Yes <input type="checkbox"/> No <input type="checkbox"/>		IF YES CAPTURE DATE OF INTERVIEW OR FOLDER REVIEW →					
Is this a folder review?		Yes <input type="checkbox"/> No <input type="checkbox"/>		<input type="text"/> d <input type="text"/> d <input type="text"/> m <input type="text"/> m <input type="text"/> y <input type="text"/> y <input type="text"/> y <input type="text"/> y					
Reason for visit to emergency centre: <input style="width:100%;" type="text"/>									
Capture reason for seeking treatment at health facility									
FIRST PRESENTATION TO A FACILITY FOR THIS INJURY?		Yes <input type="checkbox"/>							
		No <input type="checkbox"/>		Was patient referred? Yes <input type="checkbox"/> No <input type="checkbox"/>					
				If yes capture referral facility: _____					
				Is this a follow-up for a previous injury? Yes <input type="checkbox"/> No <input type="checkbox"/>					
TRIAGE CODE <input type="checkbox"/> 1 <input type="checkbox"/> Red <input type="checkbox"/> 2 <input type="checkbox"/> Orange <input type="checkbox"/> 3 <input type="checkbox"/> Yellow <input type="checkbox"/> 4 <input type="checkbox"/> Green <input type="checkbox"/> 5 <input type="checkbox"/> Blue <input type="checkbox"/> 99 <input type="checkbox"/> Unknown									
Date of injury <input type="text"/> d <input type="text"/> d <input type="text"/> m <input type="text"/> m <input type="text"/> y <input type="text"/> y <input type="text"/> y <input type="text"/> y		Time of injury <input type="text"/> h <input type="text"/> h <input type="text"/> m <input type="text"/> m		If exact time not known choose approximate time					
				<input type="checkbox"/> 7am-1pm <input type="checkbox"/> 1pm-7pm					
				<input type="checkbox"/> 7pm-1am <input type="checkbox"/> 1am-7am					
Date of treatment <input type="text"/> d <input type="text"/> d <input type="text"/> m <input type="text"/> m <input type="text"/> y <input type="text"/> y <input type="text"/> y <input type="text"/> y		Triage time <input type="text"/> h <input type="text"/> h <input type="text"/> m <input type="text"/> m		If exact time not known choose approximate time					
				<input type="checkbox"/> 7am-1pm <input type="checkbox"/> 1pm-7pm					
				<input type="checkbox"/> 7pm-1am <input type="checkbox"/> 1am-7am					
WAS ALCOHOL USED BY THE PATIENT PRIOR TO INJURY?			WERE DRUGS USED BY THE PATIENT PRIOR TO INJURY?						
Yes/suspected <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/>			Yes/suspected <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/>						
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
				99	Unknown				
Gender of main perpetrator			M <input type="checkbox"/> F <input type="checkbox"/> U <input type="checkbox"/>						
Number of perpetrators			1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 or more <input type="checkbox"/> Unknown <input type="checkbox"/>						

(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:	_____