



**A profile of fatal injuries in South Africa**  
**7<sup>th</sup> Annual Report of the**  
**NATIONAL INJURY MORTALITY SURVEILLANCE SYSTEM**  
**2005**



**Section 2. JOHANNESBURG Metropolitan Area**

**Background**

This short report, which covers the period 1 January to 31 December 2005, describes the fatal injury profile in the Johannesburg Metropolitan area, and includes data from four mortuaries: Johannesburg, Diepkloof, Germiston and Roodepoort.

This report has been generated by a software programme that interfaces with our database and produces a number of standard outputs. The Crime, Violence and Injury Lead Programme can provide more detailed analysis on request.

Year	2001		2002		2003		2004		2005	
Population#	3 225 812		3 271 105		3 303 520		3 336 255		3 383 099	
	Total deaths <sup>§</sup>	Rate/100,000 pop.	Total deaths	Rate/100,000 pop.	Total deaths	Rate/100,000 pop.	Total deaths	Rate/100,000 pop.	Total deaths	Rate/100,000 pop.
<b>Violence</b>	2274	59.9	2284	58.3	1936	49.9	1547	40.1	1441	36.4
- firearm violence	1618	41.5	1576	39.7	1326	33.9	976	24.2	827	20.1
<b>Suicide</b>	511	14.7	506	14.2	508	13.9	499	14.0	483	13.0
- firearm suicide	172	5.1	158	4.7	150	4.4	134	4.2	110	3.3
- hanging	199	5.6	205	5.5	196	5.1	216	5.6	235	6.0
<b>Transport</b>	1277	43.6	1152	39.1	1125	36.5	1153	36.3	1292	37.9
- road traffic	1210	37.4	1109	33.5	1080	32.2	1098	33.4	1234	36.2
pedestrian	516	16.8	528	16.4	510	15.5	556	17.5	523	15.9
driver	144	4.1	169	4.6	130	3.8	166	4.8	164	4.3
- railway deaths	66	1.9	43	1.2	44	1.3	55	1.8	57	1.6
<b>Unintentional</b>	496	15.8	414	13.0	447	14.0	388	12.5	469	14.4
- burns	158	4.8	158	5.0	162	5.0	136	4.2	159	4.9
- drowning	68	2.3	53	1.6	57	1.9	50	1.6	81	2.5
<b>ALL INJURIES<sup>&amp;</sup></b>	4917	140.5	4688	130.6	4501	125.9	4003	114.2	4243	118.9

\* WHO World Standard Population Distribution

# City populations adjusted from 2001 Census using Actuarial Society of South Africa's provincial growth estimates (www.assa.org)

§ Totals adjusted for missing ages.

& Includes apparent manner of death undetermined.

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**Purpose and Scope**

The NIMSS produces and disseminates descriptive epidemiological information for deaths due to non-natural causes that, in terms of existing legislation, are subject to medico-legal investigation. The end goal is to establish a permanent system that will record all such deaths that occur annually in South Africa. The NIMSS will at a local level, regional and national level, provide information to:

- describe the incidence, causes and consequences of non-natural deaths;
- prioritise injury and violence prevention action directed at high risk groups and socio-economic risk factors;
- identify new injury trends and emerging problem areas;
- monitor seasonal and longitudinal changes in the profile of non-natural fatalities ; and
- evaluate direct and indirect violence and injury.

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This report is available online at:  
[www.sahealthinfo.org.za/violence/nimss.htm](http://www.sahealthinfo.org.za/violence/nimss.htm)

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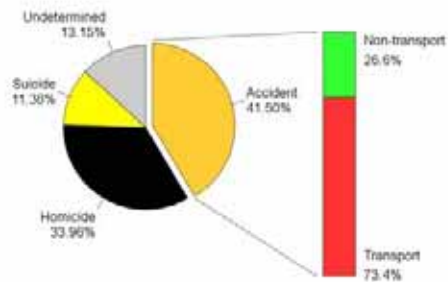
## RESULTS

A total of 4928 cases were recorded in Johannesburg for January 2005 to December 2005, including 682 (13.8%) cases that were due to natural causes and another three cases that were stored at the mortuary. The rest of the analysis is restricted to the 4243 non-natural deaths that occurred in the catchment area.

### 1. Overall manner of death

The leading manner of death was violence/homicide (33.95%).

Figure 1. Overall manner of death (N = 4243)



### Manner of death by age

The average age of the deceased was 33.6 ( $\pm$  16.2 years). The leading manner(s) of death amongst the:

- 0-14 age group was non-transport (33.8%);
- 15-24 age group was violence (38.6%);
- 25-34 age group was violence (45%);
- 35-44 age group was violence (36%);
- 45-54 age group was transport (38%) followed by violence (31.1%);
- 55-64 age group was transport (37.2%); and
- 65+ age group was transport (34.4%).

Figure 2.1. Violence/Homicide by age (n = 1207)

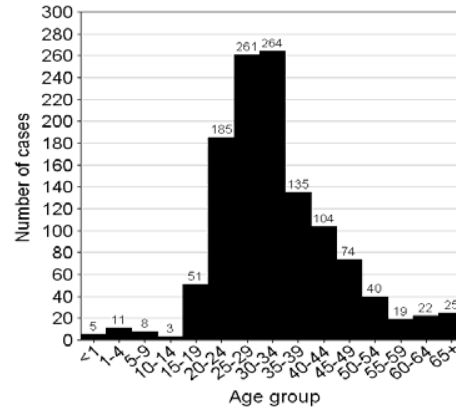


Figure 2.2. Suicide by age (n = 391)

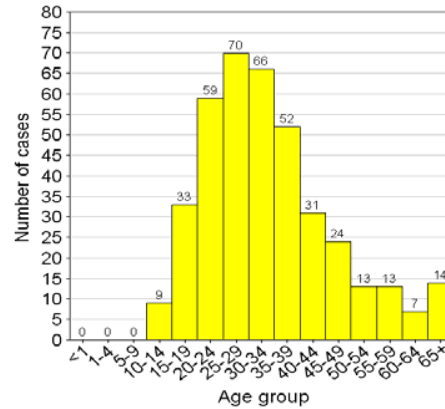
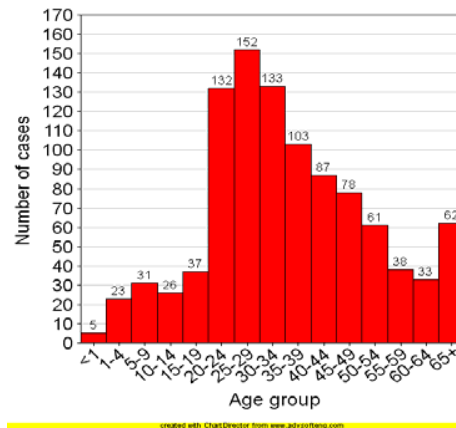
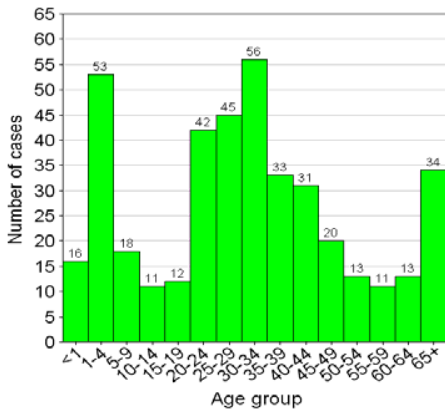


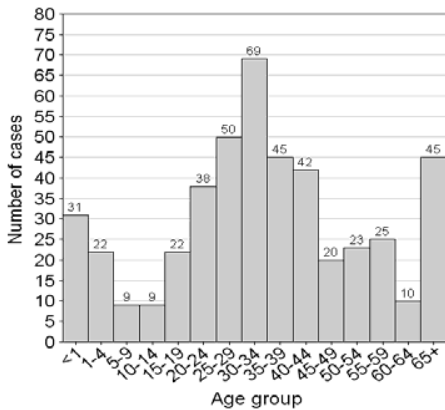
Figure 2.3. Transport deaths by age (n = 1001)



**Figure 2.4. Other unintentional injury deaths (non-transport) by age (n = 408)**



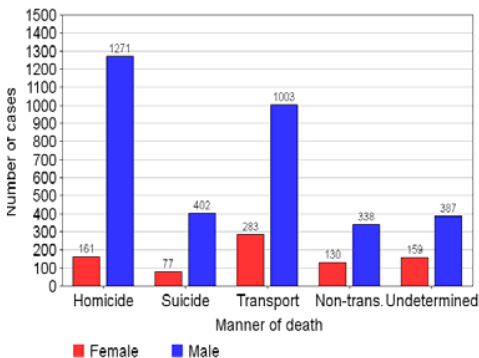
**Figure 2.5. Undetermined deaths by age (n = 460)**



**Manner of death by sex**

Of the cases recorded in Johannesburg were 3401 (80.8%) male and 810 (19.2%) were female. The leading cause of death amongst males was homicide (37.4%). The leading cause of death amongst females was transport (34.9%).

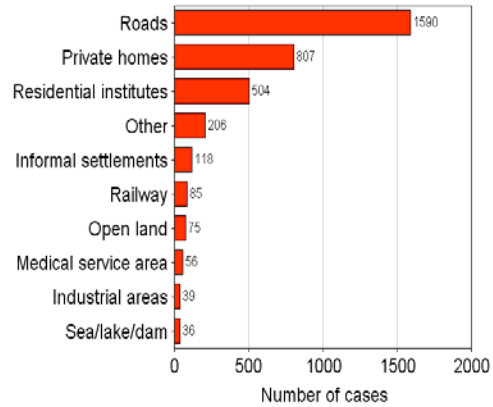
**Figure 3. Manner of death by sex (n = 4211)**



**2. Scene of injury**

The scene of injury was known in 3653 (86.1%) cases. The scene that accounted for the majority of deaths was roads (43.5%).

**Figure 4. Top 10 scenes of injury (n = 3516)**

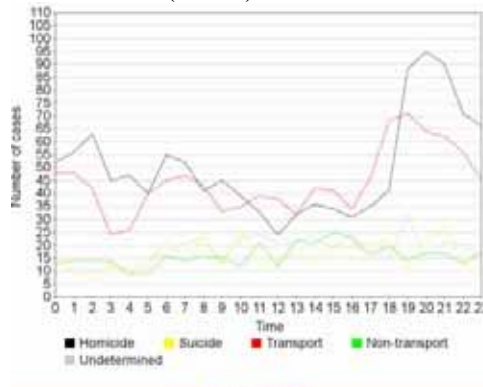


**3. Time of death**

The peak period(s) of death for:

- **violence** was 19h00 - 00h00 (33.9%) followed by 02h00 - 03h00 (5.2%);
- **suicide** was 20h00 - 22h00 (12.4%), followed by 17h00 - 19h00 (10.7%), followed by 10h00 - 11h00 (6.9%);
- **transport** related deaths was 18h00 - 23h00 (30%); and
- **other unintentional injury deaths (non-transport)** was 13h00 - 17h00 (23.7%), followed by 11h00 - 12h00 (5.5%), followed by 18h00 - 19h00 (5.2%).

**Figure 5. Time of death (n = 3491)**



#### 4. Day of death

The peak days of death for:

- **violence** were Saturday (24%), followed by Sunday (17.4%), followed by Friday (13.6%);
- **suicide** were Thursday (16.3%), followed by Saturday (16%), followed by Sunday (15.2%);
- **transport** related deaths were Saturday (21.3%), followed by Sunday (18.9%), followed by Friday (15.6%); and
- **other unintentional injury deaths (non-transport)** were Sunday (18.8%), followed by Saturday (14.9%), followed by Tuesday (13.6%).

Figure 6. Day of death (n = 4230)

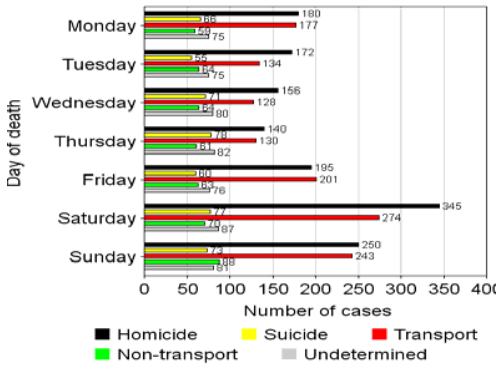


Figure 7. Day of violence-related deaths by sex (n = 1430)

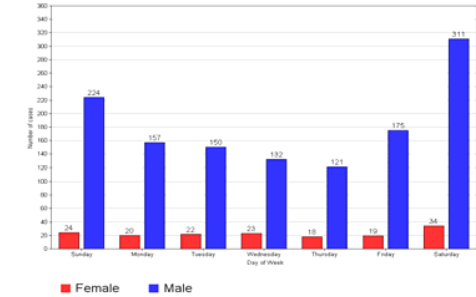


Figure 8. Day of suicide deaths by sex (n = 477)

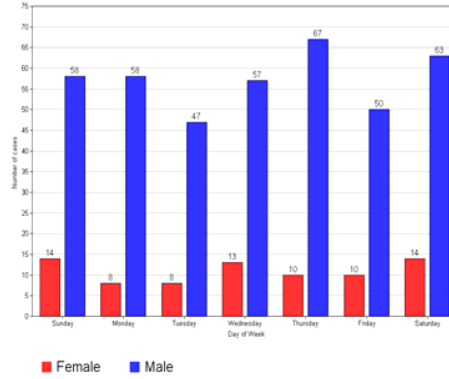
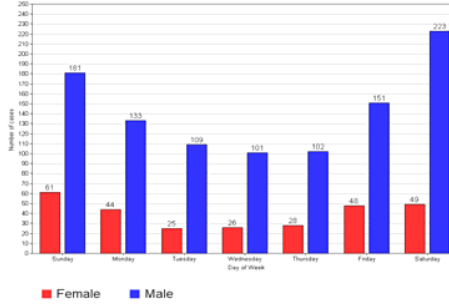


Figure 9. Day of transport deaths by sex (n = 1281)



#### 5. Seasonal variation

The peak month for:

- **violence** was December (10.8%), followed by November (10.1%), followed by May (9.3%);
- **suicide** was November (10.6%), followed by July (9.6%), followed by April (9.4%);
- **transport** related deaths was September (9.7%), followed by March (9.6%), followed by July (9.3%); and
- **other unintentional injury deaths (non-transport)** was August (10.4%), followed by November (9.8%), followed by June (9.4%).

Figure 10. Seasonal variation (n = 4230)

