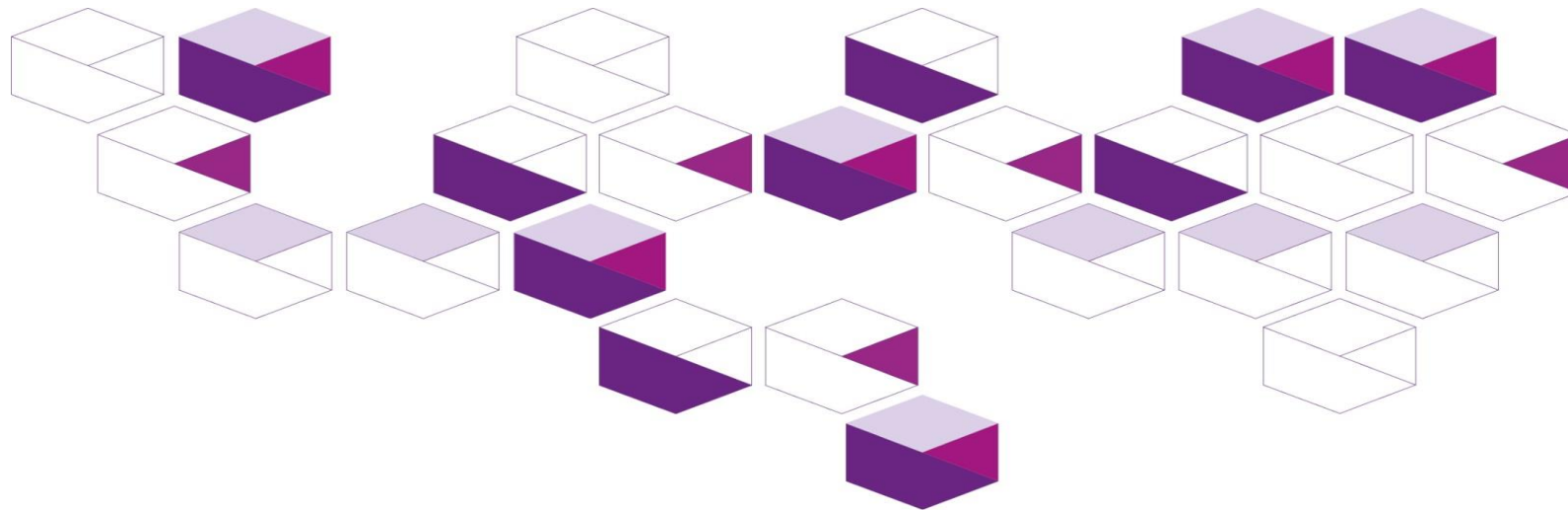




Government of **Western Australia**
South Metropolitan Health Service

City of Mandurah Injury and poisoning data September 2019

South Metropolitan Health Service
Health Promotion



Acknowledgement

The South Metropolitan Health Service respectfully acknowledges the Aboriginal Noongar people both past and present, the traditional owners of the land on which we work.

Notes

In this report:

The terms 'City of Mandurah' and 'Mandurah LGA' are used interchangeably.

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. No disrespect is intended to our Torres Strait Islander colleagues and community.

Important disclaimer

All information and content in this material is provided in good faith by the WA Department of Health, and is based on sources believed to be reliable and accurate at the time of development. The State of Western Australia, the WA Department of Health and their respective officers, employees and agents, do not accept legal liability or responsibility for the material, or any consequences arising from its use.

Abbreviations

ASR	Age-standardised rate
CI	Confidence interval
DoH	Department of Health, Western Australia
LGA	Local government area
WA	Western Australia
ICD 10	International Classification of Diseases, 10 th revision
ED	Emergency Department

Contents

Acknowledgement	2
Notes	2
Important disclaimer	2
Abbreviations	2
Contents	3
Purpose	4
Health Datasets	4
Data sources and data period	4
Inclusion criteria	4
Methods and definitions	5
Limitations of the data	5
Notes	5
Hospitalisations	6
Costs	8
Emergency Department presentations	9
Fatalities	10

Purpose

The health-specific data contained in this document is provided by South Metropolitan Health Service (SMHS) Health Promotion to the City of Mandurah to support local government public health planning

Health datasets

All data provided is sourced from within the Epidemiology Branch, Public Health Division, Department of Health, Western Australia.

Data sources and data period

- WA Hospital Morbidity Data System (1998-2018)
- WA Health Emergency Department Data Collection (2004-2018)
- Death Registrations, Registry of Births, Deaths and Marriages; Cause of Death, Australian Bureau of Statistics (1983-2016)

Inclusion criteria

- WA residents only.
- Hospitalisations due to injury and poisoning are identified by principal diagnosis codes (ICD-10-AM) ranging from S00 to T98 inclusive.
- Emergency department presentations due to injury and poisoning are identified by the following major diagnostic blocks (ICD-10-AM): (1) Poisoning, (1C) Drug reaction, (2A) Injury, multiple sites, (2B) Injury, single site, major, and (2BA) = Injury, single site, minor.
- Fatalities due to injury and poisoning are identified by cause of death codes (ICD-10) ranging from U50-U73 and V00-V98 inclusive. These codes indicate death by external causes.

Methods and definitions

ASR	Age-standardised rate per 100,000 persons per year, standardised using indirect method against the 2001 Australian population. ASRs are only provided where case counts > 20, as otherwise they are unreliable.
ASR LCI and ASR UCI	Lower and upper limits of 95 per cent confidence intervals for ASR. Statistically we are 95 per cent confident that the true rate (ASR) falls between the lower and upper confidence interval values. Two rates are considered significantly different (at the 0.05 level) if their confidence intervals do not overlap. Otherwise, if their confidence intervals overlap, the two rates are not significantly different.

Limitations of the data

It is important to be cautious when comparing the data in this document to that of previous data and not to overstate any perceived differences between results. Changes could be due to a change in the demographic mix of the population, particularly as there have been some minor revisions to LGA boundaries over time.

Results are also not comparable between LGAs because for each LGA the minimum number of years necessary to make up a sufficient sample has been used. This means that the time period for other LGAs may differ.

Notes

- All rates are per 100,000 persons per year.
- ASR = Age-standardised rate ; ASR LCI=95 per cent lower confidence limit for ASR; ASR UCI=95 per cent upper confidence limit for ASR
- Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality.
- Age standardised rates are not provided when the total event numbers for the population being studied are less than 20 due to unreliable rates that are derived.

Hospitalisations

Table 1: Number and rates of hospitalisations due to injury and poisoning by injury category and age groups, Mandurah local government area, WA, 2014 - 2018 (combined).

Injury category	Numbers by age group					Total	Age group specific rates					ASR	ASR LCI	ASR UCI
	0-14	15-24	25-44	45-64	65+		0-14	15-24	25-44	45-64	65+			
Transport accidents	90	208	294	250	223	1,065	110.3	400.1	292.9	233.8	235.5	250.8	235.2	266.4
Accidental falls	433	134	276	602	3,020	4,465	530.9	257.7	275.0	562.9	3,189.0	753.9	730.6	777.2
Exposure to mechanical forces	334	277	482	372	248	1,713	409.5	532.8	480.2	347.8	261.9	417.4	397.1	437.8
Accidental drowning, submersion, threats to breathing	18	N/A	N/A	6	11	36	22.1	0.0	1.0	5.6	11.6	7.4	4.9	9.8
Exposure to electricity, radiation, extreme temperature/pressure	N/A	8	8	8	N/A	30	1.2	15.4	8.0	7.5	5.3	7.6	4.8	10.3
Exposure to smoke, fire, flames, hot substances	53	21	23	28	12	137	65.0	40.4	22.9	26.2	12.7	33.0	27.4	38.7
Exposure to venomous plants, animals, forces of nature	17	10	32	28	22	109	20.8	19.2	31.9	26.2	23.2	26.5	21.3	31.6
Accidental poisoning	47	18	47	35	61	208	57.6	34.6	46.8	32.7	64.4	46.0	39.4	52.5
Other external causes of accidental injury	104	217	430	444	382	1,577	127.5	417.4	428.4	415.2	403.4	361.2	342.6	379.7
Intentional self-harm	8	108	110	78	22	326	9.8	207.7	109.6	72.9	23.2	85.1	75.7	94.5
Assault & other injury caused by other person(s)	13	70	140	76	25	324	15.9	134.6	139.5	71.1	26.4	85.0	75.6	94.4
Event of undetermined intent	N/A	7	20	N/A	9	45	3.7	13.5	19.9	5.6	9.5	11.2	7.9	14.6
Adverse effects due to drugs & other substances	55	16	21	28	41	161	67.4	30.8	20.9	26.2	43.3	35.2	29.6	40.8
Medical misadventure	N/A	N/A	16	14	31	70	2.5	13.5	15.9	13.1	32.7	14.3	10.7	17.8
Abnormal reaction following procedure	93	128	451	830	1,480	2,982	114.0	246.2	449.3	776.1	1,563.0	566.0	544.5	587.5
Sequelae of external causes of morbidity & mortality	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* All rates are per 100,000 population

ASR = Age-standardised rate ; ASR LCI=95 per cent lower confidence limit for ASR; ASR UCI=95 per cent upper confidence limit for ASR

Note 1: Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality.

Note 2: Age standardised rates are not provided when the total event numbers for the population being studied are less than 20 due to unreliable rates that are derived.

Table 2: Length of stay of hospitalisation (number of days) due to injury and poisoning by injury category, gender, age group and Aboriginal status, Mandurah local government area, 2018.

Injury category	Gender		Age group					Aboriginal status		Total
	Male	Female	0-14 years	15-24 years	25-44 years	45-64 years	65+ years	Non-Aboriginal	Aboriginal	
Transport accidents	588	123	16	125	230	206	134	706	5	711
Accidental falls	2,377	4,055	114	60	215	837	5,206	6,403	29	6,432
Exposure to mechanical forces	372	261	108	77	130	163	155	611	22	633
Accidental drowning, submersion, threats to breathing	5	7	4	0	0	5	3	12	0	12
Exposure to electricity, radiation, extreme temperature / pressure	7	0	0	4	3	0	0	7	0	7
Exposure to smoke, fire, flames, hot substances	25	19	14	16	5	0	9	41	3	44
Exposure to venomous plants, animals, forces of nature	15	5	3	0	7	5	5	20	0	20
Accidental poisoning	49	26	9	8	19	10	29	72	3	75
Other external causes of accidental injury	286	201	25	48	107	129	178	480	7	487
Intentional self-harm	88	156	3	76	76	71	18	236	8	244
Assault & other injury caused by other person(s)	112	21	3	26	40	16	48	127	6	133
Event of undetermined intent	5	14	0	3	3	10	3	19	0	19
Adverse effects due to drugs & other substances	15	23	8	3	3	10	14	35	3	38
Medical misadventure	21	9	0	4	3	3	20	30	0	30
Abnormal reaction following procedure	1,308	1,200	28	71	267	545	1,597	2,489	19	2,508
Total	5,273	6,120	335	521	1,108	2,010	7,419	11,288	105	11,393

Note 1: Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality.

Note 2: Age standardised rates are not provided when the total event numbers for the population being studied are less than 20 due to unreliable rates that are derived.

Costs

Table 3: Cost of hospitalisation (\$) due to injury and poisoning by injury category, Mandurah LGA, WA, 2018.

Injury category	Total Cost
Transport accidents	\$ 2,077,546
Accidental falls	\$ 9,087,894
Exposure to mechanical forces	\$ 1,807,274
Accidental drowning, submersion, threats to breathing	\$ 58,958
Exposure to electricity, radiation, extreme temperature/pressure	\$ 22,179
Exposure to smoke, fire, flames, hot substances	\$ 242,625
Exposure to venomous plants, animals, forces of nature	\$ 56,948
Accidental poisoning	\$ 198,864
Other external causes of accidental injury	\$ 2,227,353
Intentional self-harm	\$ 725,452
Assault & other injury caused by other person(s)	\$ 413,774
Event of undetermined intent	\$ 37,384
Adverse effects due to drugs & other substances	\$ 90,444
Medical misadventure	\$ 124,579
Abnormal reaction following procedure	\$ 6,734,598
Total	\$ 23,905,872

Emergency Department presentations

Table 4: Number and rates of ED presentations due to injury and poisoning by age groups, Mandurah LGA, WA, 2014 - 2018 (combined).

Numbers by age group					Total	Age group specific rates					ASR	ASR LCI	ASR UCI
0-14	15-24	25-44	45-64	65+		0-14	15-24	25-44	45-64	65+			
10,209	6,452	8,674	6,192	7,944	39,471	12,516.6	12,410.3	8,641.0	5,790.0	8,388.0	9,325.1	9,230.2	9,420.1

* All rates are per 100,000 population

ASR = Age-standardised rate; ASR LCI=95 per cent lower confidence limit for ASR; ASR UCI=95 per cent upper confidence limit for ASR

Note 1: Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality.

Note 2: Age standardised rates are not provided when the total event numbers for the population being studied are less than 20 due to unreliable rates that are derived.

Fatalities

Table 5: Number of fatalities due to injury and poisoning by injury category, Mandurah LGA, WA, 2012 - 2016 (combined).

Injury category (Cause of death by ICD-10 code)	Number
Accidental falls (W00-W19)	66
Intentional self-harm (X60-X84,Y87.0)	64
Transport accidents (V00-V06,V09-V99,Y85)	26
Accidental poisoning (X40-X49)	25
Accidental exposure to other and unspecified factors (X50-X54,X57-X59)	22
Accidental drowning, submersion and threats to breathing (W65-W70,W73-W81,W83-W84)	7
Event of undetermined intent (Y10-Y34,Y87.2)	6
Assault (X85-X99,Y00-Y09,Y35-Y36,Y87.1)	6
Exposure to mechanical forces (W20-W46,W49-W61,W64)	< 5
Sequelae of other accidents (Y86,Y89)	< 5
Abnormal reaction following procedure (Y83-Y84,Y88.3)	< 5
Adverse effects due to drugs and other substances (Y40-Y59,Y88.0)	< 5
Total	230

Note: Counts less than 5 have been suppressed in this report to protect privacy and data confidentiality.

This document can be made available in alternative formats on request.

South Metropolitan Health Service

Fiona Stanley Hospital, Administration, Level 2,

14 Barry Marshall Parade, MURDOCH WA 6150

Postal address: Locked Bag 100 PALMYRA DC WA 6961

www.southmetropolitan.health.wa.gov.au

Compiled: South Metropolitan Health Service, 2019

© State of Western Australia, South Metropolitan Health Service, 2019

Copyright to this material produced by the Western Australian Department of Health belongs to the State of Western Australia, under the provisions of the *Copyright Act 1968* (Commonwealth of Australia). Apart from any fair dealing for personal, academic, research or non-commercial use, no part may be reproduced without written permission of the South Metropolitan Health Service, Western Australian Department of Health. The Department of Health is under no obligation to grant this permission. Please acknowledge the WA Department of Health when reproducing or quoting material from this source.