



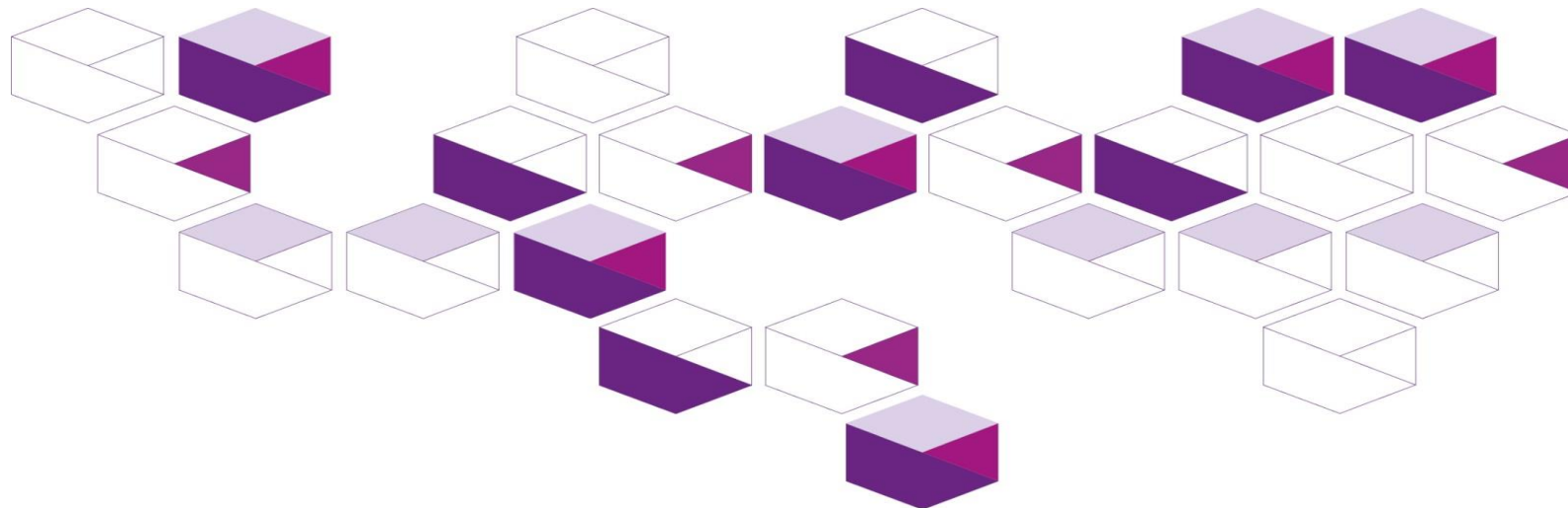
Government of **Western Australia**  
**South Metropolitan Health Service**

# City of Fremantle Injury and poisoning data

## June 2020

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 Fremantle' and 'Fremantle 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 <sup>th</sup> Revision
ED	Emergency Department

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# Purpose

The health-specific data contained in this document is provided by South Metropolitan Health Service, Health Promotion to the City of Fremantle 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.
- Standardised rate ratios are not provided when the total event numbers for the population being studied are less than 5 due to unreliable rate ratios that are derived.

# Hospitalisations

Table 1: Number and rates of hospitalisations due to injury and poisoning by injury category and age groups- Fremantle LGA, WA, 2014 - 2018

Injury category	Numbers by age group					Total	Age group specific rates					ASR
	0-14	15-24	25-44	45-64	65+		0-14	15-24	25-44	45-64	65+	
Transport accidents	30	47	122	116	58	<b>373</b>	123.6	283.9	248.4	277.8	211.9	233.1
Accidental falls	129	52	118	265	1005	<b>1569</b>	531.3	314.1	240.3	634.7	3672	816
Exposure to mechanical forces	89	72	171	126	72	<b>530</b>	366.6	434.8	348.2	301.8	263.1	342.1
Accidental drowning, submersion, threats to breathing	N/A	0	0	0	N/A	<b>7</b>	N/A	N/A	N/A	N/A	N/A	N/A
Exposure to electricity, radiation, extreme temperature/pressure	0	N/A	17	0	0	<b>19</b>	N/A	N/A	N/A	N/A	N/A	N/A
Exposure to smoke, fire, flames, hot substances	8	6	8	10	N/A	<b>34</b>	32.9	36.2	16.3	24	7.3	23.3
Exposure to venomous plants, animals, forces of nature	7	N/A	13	10	6	<b>40</b>	28.8	24.2	26.5	24	21.9	24.6
Accidental poisoning	17	10	42	34	7	<b>110</b>	70	60.4	85.5	81.4	25.6	71.3
Other external causes of accidental injury	19	74	180	141	95	<b>509</b>	78.3	446.9	366.5	337.7	347.1	307.2
Intentional self-harm	6	98	120	57	19	<b>300</b>	24.7	591.9	244.4	136.5	69.4	209.2
Assault & other injury caused by other person(s)	6	17	110	50	9	<b>192</b>	24.7	102.7	224	119.8	32.9	123.6
Event of undetermined intent	N/A	5	19	11	N/A	<b>40</b>	4.1	30.2	38.7	26.3	14.6	25.1
Adverse effects due to drugs & other substances	11	N/A	13	6	8	<b>42</b>	45.3	24.2	26.5	14.4	29.2	27.8
Medical misadventure	0	0	<10	N/A	8	<b>16</b>	N/A	N/A	N/A	N/A	N/A	N/A
Abnormal reaction following procedure	24	25	142	204	367	<b>762</b>	98.8	151	289.2	488.6	1341	408
<b>TOTAL</b>	<b>346</b>	<b>406</b>	<b>1082</b>	<b>1030</b>	<b>1654</b>	<b>4543</b>	<b>1429</b>	<b>2500</b>	<b>2154</b>	<b>2467</b>	<b>6037</b>	<b>2611</b>

\* 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 (beddays) due to injury and poisoning by injury category, gender, age group and Aboriginal status, Fremantle LGA, 2018.**

Injury category	Gender		Age group					Indigenous status	
	Male	Female	0-14 years	15-24 years	25-44 years	45-64 years	65+ years	Non-Aboriginal	Aboriginal
Transport accidents	100	35	13	7	35	51	29	133	<5
Accidental falls	711	959	21	10	26	169	1444	1660	10
Exposure to mechanical forces	105	110	47	26	39	75	28	210	5
Accidental drowning, submersion, threats to breathing	<5	9	<5	0	0	0	7	11	0
Exposure to smoke, fire, flames, hot substances	12	13	<5	7	0	5	12	23	<5
Exposure to venomous plants, animals, forces of nature	11	<5	<5	<5	5	157	<5	13	<5
Accidental poisoning	157	11	<5	<5	5	157	<5	166	<5
Other external causes of accidental injury	135	48	<5	15	44	36	87	181	<5
Intentional self-harm	43	118	<5	77	41	20	21	154	7
Assault & other injury caused by other person(s)	26	22	<5	<5	26	8	11	39	9
Event of undetermined intent	10	<5	0	0	9	<5	0	7	6
Adverse effects due to drugs & other substances	5	20	<5	<5	5	0	15	25	0
Medical misadventure	0	7	0	0	<5	0	<5	7	0
Abnormal reaction following procedure	262	266	11	7	52	170	288	502	26
Sequelae of external causes of morbidity & mortality	<5	0	0	0	<5	0	0	<5	0
<b>Total</b>	<b>1580</b>	<b>1623</b>	<b>111</b>	<b>158</b>	<b>288</b>	<b>697</b>	<b>1949</b>	<b>3132</b>	<b>71</b>

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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, Fremantle, LGA, WA, 2018.**

Injury category	Total Cost
Transport accidents	\$654,925.11
Accidental falls	\$2,961,860.52
Exposure to mechanical forces	\$687,922.29
Accidental drowning, submersion, threats to breathing	\$22,872.41
Exposure to electricity, radiation, extreme temperature/pressure	-
Exposure to smoke, fire, flames, hot substances	\$31,940.65
Exposure to venomous plants, animals, forces of nature	\$47,364.94
Accidental poisoning	\$153,288.19
Other external causes of accidental injury	\$704,087.46
Intentional self-harm	\$497,042.80
Assault & other injury caused by other person(s)	\$155,808.69
Event of undetermined intent	\$132,470.54
Adverse effects due to drugs & other substances	\$29,852.40
Medical misadventure	\$6,116.94
Abnormal reaction following procedure	\$1,525,912.63
Sequelae of external causes of morbidity & mortality	\$4,802.32
<b>Total</b>	<b>\$7,616,267.89</b>



# Emergency Department presentations

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

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+			
2822	1789	3734	2465	1676	<b>12486</b>	11623	10805	7604	5904	6124	8361	8210	8513

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

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# Fatalities

**Table 5: Total deaths and rates of death due to injury and poisoning by injury category for Fremantle, LGA, 2013 – 2017.**

Injury Category (cause of death by ICD-10 code)	Total	ASR	LCI	UCI
Transport accidents (V00-V06,V09-V99,Y85)	7	N/A	N/A	N/A
Accidental falls (W00-W19)	24	11.1	6.6	45.5
Exposure to mechanical forces (W20-W46,W49-W61,W64)	N/A	N/A	N/A	N/A
Accidental drowning, submersion and threats to breathing (W65-W70,W73-W81,W83-W84)	N/A	N/A	N/A	N/A
Contact with venomous animals and plants; exposure to forces of nature (X20-X39)	N/A	N/A	N/A	N/A
Accidental poisoning (X40-X49)	21	13.9	7.9	19.9
Accidental exposure to other and unspecified factors (X50-X54,X57-X59)	6	N/A	N/A	N/A
Intentional self-harm (X60-X84,Y87.0)	25	15.8	9.6	22.1
Assault (X85-X99,Y00-Y09,Y35-Y36,Y87.1)	5	N/A	N/A	N/A
Event of undetermined intent (Y10-Y34, Y87.1)	N/A	N/A	N/A	N/A
Abnormal reaction following procedure (Y83-Y84,Y88.3)	N/A	N/A	N/A	N/A
<b>TOTAL</b>	<b>88</b>	<b>40.8</b>	<b>24.1</b>	<b>57.5</b>

\* 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

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

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