



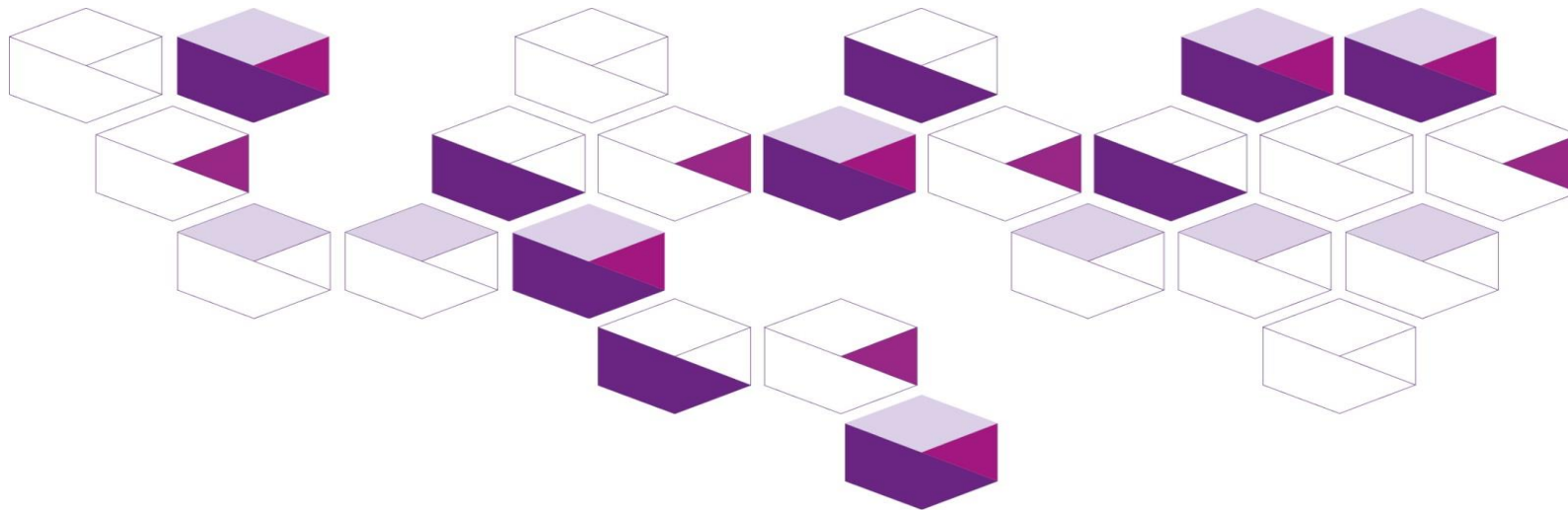
Government of **Western Australia**
South Metropolitan Health Service

City of Melville

Injury and poisoning data

March 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 Melville' and 'Melville 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

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Purpose

The health-specific data contained in this document is provided by South Metropolitan Health Service (SMHS), Health Promotion to the City of Melville 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- Melville LGA, 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	72	116	193	278	263	922	81.3	151.5	139.1	193.2	277.8	158.6	148	169.1
Accidental falls	441	135	261	575	4028	5440	497.9	176.3	188.1	399.7	4255	723.2	702.7	743.8
Exposure to mechanical forces	264	226	332	269	233	1324	298	295.1	239.2	187	246.1	246.7	233.1	260.3
Accidental drowning, submersion, threats to breathing	10	<5	8	<5	7	30	11.3	N/A	5.8	N/A	7.4	5.8	3.7	8.0
Exposure to electricity, radiation, extreme temperature/pressure	0	<5	<5	<5	0	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exposure to smoke, fire, flames, hot substances	27	12	19	20	16	94	30.5	15.7	13.7	13.9	16.9	18	14.2	21.7
Exposure to venomous plants, animals, forces of nature	10	8	11	12	17	58	11.3	10.4	7.9	8.3	18	10.4	7.6	13.1
Accidental poisoning	41	25	47	39	48	200	46.3	32.6	33.9	27.1	50.7	37.2	31.9	42.6
Other external causes of accidental injury	96	377	479	427	445	1824	108.4	492.2	345.1	296.8	470.1	318.7	303.6	333.7
Intentional self-harm	17	181	142	103	29	472	19.2	236.3	102.3	71.6	30.6	90.2	81.9	98.4
Assault & other injury caused by other person(s)	5	41	84	30	14	174	5.6	53.5	60.5	20.9	14.8	33.8	28.7	38.8
Event of undetermined intent	5	9	15	15	6	50	5.6	11.8	10.8	10.4	6.3	9.4	6.8	12.1
Adverse effects due to drugs & other substances	55	28	19	21	32	155	62.1	36.6	13.7	14.6	33.8	29.6	24.8	34.4
Medical misadventure	<5	<5	<5	16	23	46	N/A	N/A	N/A	11.1	24.3	7.1	4.9	9.2
Abnormal reaction following procedure	115	233	387	681	1205	2621	129.8	304.2	278.9	473.4	1273	420.4	403.7	437
TOTAL	1158	1391	2002	2486	6366	13420	1310	1821	1442	1729	6725	2109	1996	2222

* 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- Melville LGA, 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	526	94	10	178	95	223	114	468	152	620
Accidental falls	2124	5139	89	39	141	365	6629	7215	48	7263
Exposure to mechanical forces	270	268	72	73	71	116	206	533	5	538
Accidental drowning, submersion, threats to breathing	108	0	108	0	0	0	0	108	0	108
Exposure to electricity, radiation, extreme temperature / pressure	<5	0	0	0	0	<5	0	<5	0	<5
Exposure to smoke, fire, flames, hot substances	38	11	<5	27	<5	5	11	46	<5	49
Exposure to venomous plants, animals, forces of nature	<5	5	0	<5	<5	<5	<5	9	0	9
Accidental poisoning	23	57	11	6	20	19	24	77	<5	80
Other external causes of accidental injury	379	450	14	103	125	138	449	827	<5	829
Intentional self-harm	51	212	<5	138	58	42	22	253	10	263
Assault & other injury caused by other person(s)	30	35	15	5	20	17	8	49	16	65
Event of undetermined intent	10	5	<5	<5	7	5	<5	14	<5	15
Adverse effects due to drugs & other substances	41	57	13	6	6	6	67	98	0	98
Medical misadventure	28	<5	<5	0	<5	6	21	32	0	32
Abnormal reaction following procedure	1297	1268	61	57	183	554	1710	2550	15	2565
Total	4932	N/A	404	634	733	1502	9264	12282	255	12537

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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- Melville LGA, WA, 2018.

Injury category	Total Cost
Transport accidents	\$1,352,619.08
Accidental falls	\$10,518,034.69
Exposure to mechanical forces	\$1,416,589.52
Accidental drowning, submersion, threats to breathing	\$177,225.69
Exposure to electricity, radiation, extreme temperature/pressure	\$12,500.24
Exposure to smoke, fire, flames, hot substances	\$414,531.64
Exposure to venomous plants, animals, forces of nature	\$29,412.72
Accidental poisoning	\$196,017.07
Other external causes of accidental injury	\$2,662,719.64
Intentional self-harm	\$479,882.83
Assault & other injury caused by other person(s)	\$120,800.25
Event of undetermined intent	\$39,317.85
Adverse effects due to drugs & other substances	\$103,663.24
Medical misadventure	\$200,711.95
Abnormal reaction following procedure	\$6,915,711.17
Total	\$24,639,737.58

Emergency Department presentations

Table 4: Number and rates of ED presentations due to injury and poisoning by age groups- Melville 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+			
10205	5521	6520	4995	4869	32110	11521.2	7208.7	4698.0	3472.0	5143.4	6199.7	6130.2	6269.2

* All rates are per 100,000 population

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

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Fatalities

Table 5: Total deaths and ASR- Melville LGA residents by condition, 2013 – 2017.

Injury Category	Gender		ASR	LCI	UCI
	Male	Female			
Transport accidents (V00-V06,V09-V99,Y85)	13	<5	N/A	N/A	N/A
Accidental falls (W00-W19)	32	56	9.2	7.2	11.2
Exposure to mechanical forces (W20-W46,W49-W61,W64)	<5	0	N/A	N/A	N/A
Accidental drowning, submersion and threats to breathing (W65-W70,W73-W81,W83-W84)	5	<5	N/A	N/A	N/A
Exposure to smoke, fire and flames; heat and hot substances (X00-X06,X08-X19)	<5	<5	N/A	N/A	N/A
Accidental poisoning (X40-X49)	22	8	5.5	3.5	7.6
Accidental exposure to other and unspecified factors (X50-X54,X57-X59)	7	5	N/A	N/A	N/A
Intentional self-harm (X60-X84,Y87.0)	39	19	10.6	7.8	13.3
Assault (X85-X99,Y00-Y09,Y35-Y36,Y87.1)	<5	<5	N/A	N/A	N/A
Adverse effects due to drugs and other substances (Y40-Y59,Y88.0)	0	<5	N/A	N/A	N/A
Abnormal reaction following procedure (Y83-Y84,Y88.3)	<5	0	N/A	N/A	N/A
Sequelae of other accidents (Y86,Y89)	<5	0	N/A	N/A	N/A
TOTAL	123	95	25.3	18.5	32.1

* 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

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

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