



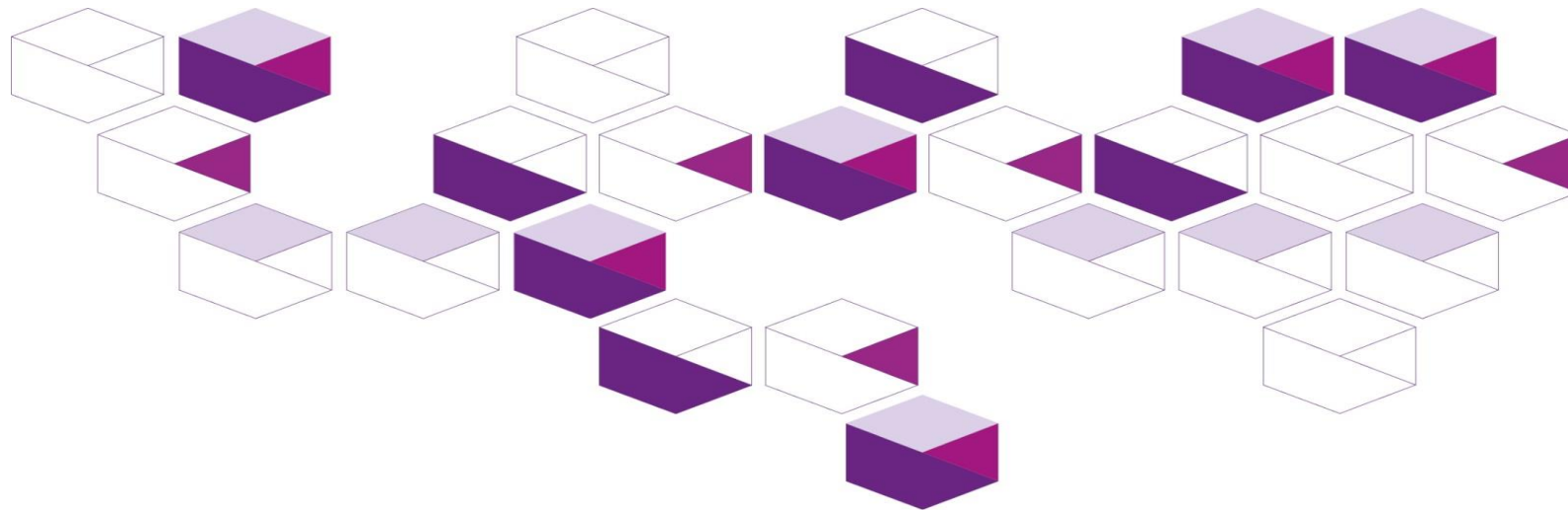
Government of **Western Australia**
South Metropolitan Health Service

City of Kwinana Injury and poisoning data

August 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 Kwinana and 'Kwinana 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 Kwinana 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 (2014-2018)
- WA Health Emergency Department Data Collection (2004-2018)
- WA Death Data (2013-2017)

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.
- Death due to injury and poisoning are identified by Minor10.

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, Kwinana LGA, WA, 2014 - 2018 (combined).

Injury category	Numbers by age group					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	43	122	199	64	25	96.47	469.67	299.86	162.16	132.46	229.17	207.74	250.59
Accidental falls	177	72	143	186	613	397.11	277.18	215.48	471.27	3247.85	722.22	680.4	764.05
Exposure to mechanical forces	146	167	300	132	38	327.56	642.91	452.05	334.45	201.33	388.91	361.23	416.59
Accidental drowning, submersion, threats to breathing	12	<5	<5	<5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exposure to electricity, radiation, extreme temperature/pressure	0	<5	<5	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exposure to smoke, fire, flames, hot substances	17	10	20	13	7	38.14	38.5	30.14	32.94	37.09	33.78	25.51	42.06
Exposure to venomous plants, animals, forces of nature	<5	6	19	16	6	8.97	23.1	28.63	40.54	31.79	26.95	19.45	34.46
Accidental poisoning	27	10	29	20	8	60.58	38.5	43.7	50.67	42.39	46.92	37.19	56.65
Other external causes of accidental injury	44	98	232	155	53	98.72	377.27	349.58	392.73	280.81	305.57	280.34	330.8
Intentional self-harm	<5	37	86	38	9	8.97	142.44	129.59	96.28	47.68	90.49	76.84	104.14
Assault & other injury caused by other person(s)	9	54	131	51	5	20.19	207.89	197.39	129.22	26.49	124.96	109.22	140.69
Event of undetermined intent	<5	<5	13	7	<5	6.73	11.55	19.59	17.74	10.6	14.09	8.75	19.42
Adverse effects due to drugs & other substances	10	10	17	11	10	22.44	38.5	25.62	27.87	52.98	30.38	22.38	38.38
Medical misadventure	0	<5	9	9	8	0	3.85	13.56	22.8	42.39	15.59	9.57	21.6
Abnormal reaction following procedure	46	52	270	312	282	103.2	200.19	406.84	790.52	1494.12	545.61	510.53	580.69
Sequelae of external causes of morbidity & mortality	0	0	0	0	<5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* 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.

Note 1: Counts less than 5 have been suppressed 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, Kwinana LGA, 2018.

Injury category	Gender		Age group					Aboriginal status	
	Male	Female	0-14 years	15-24 years	25-44 years	45-64 years	65+ years	Non-Aboriginal	Aboriginal
Transport accidents	451	176	16	115	451	32	13	432	195
Accidental falls	575	1056	71	32	53	237	1238	1609	22
Exposure to mechanical forces	325	70	42	44	158	141	10	388	7
Accidental drowning, submersion, threats to breathing	<5	<5	<5	<5	0	<5	0	<5	0
Exposure to electricity, radiation, extreme temperature / pressure	0	<5	0	0	<5	0	0	<5	0
Exposure to smoke, fire, flames, hot substances	13	27	<5	0	14	20	5	40	0
Exposure to venomous plants, animals, forces of nature	6	<5	<5	<5	0	<5	<5	8	<5
Accidental poisoning	36	9	8	<5	5	29	<5	44	<5
Other external causes of accidental injury	104	100	7	27	50	47	73	191	13
Intentional self-harm	23	61	<5	15	45	12	11	71	13
Assault & other injury caused by other person(s)	86	18	5	14	52	33	0	65	39
Event of undetermined intent	10	9	<5	5	<5	10	<5	19	0
Adverse effects due to drugs & other substances	<5	7	<5	0	<5	<5	<5	8	0
Medical misadventure	26	<5	0	0	<5	0	26	28	0
Abnormal reaction following procedure	374	448	9	31	151	265	366	689	133
Total	2033	1988	166	289	985	833	1748	3597	424

Note: Counts less than 5 have been suppressed to protect the privacy of individuals.

Costs

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

Injury category	Total Cost
Transport accidents	\$ 1,216,096.99
Accidental falls	\$ 2,863,580.29
Exposure to mechanical forces	\$ 964,129.06
Accidental drowning, submersion, threats to breathing	\$ 23,064.50
Exposure to electricity, radiation, extreme temperature/pressure	\$ 1,741.38
Exposure to smoke, fire, flames, hot substances	\$ 97,900.10
Exposure to venomous plants, animals, forces of nature	\$ 17,637.12
Accidental poisoning	\$ 103,930.37
Other external causes of accidental injury	\$ 844,774.65
Intentional self-harm	\$ 215,257.39
Assault & other injury caused by other person(s)	\$ 304,151.63
Event of undetermined intent	\$ 35,052.60
Adverse effects due to drugs & other substances	\$ 26,887.93
Medical misadventure	\$ 67,259.79
Abnormal reaction following procedure	\$ 2,351,163.89
Total	\$ 9,132,627.69

Emergency Department presentations

Table 4: Number and rates of ED presentations due to injury and poisoning by age groups, Kwinana 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+			
6021	3606	5665	2770	1409	19471	13508	13882	8536	7018	7465	9843	9703	9984

* 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: Number and rates of death due to injury and poisoning by injury category, Kwinana LGA, WA, 2013 – 2017 (combined).

Injury category	Count	ARS	ASR LCI	ASR UCI
Transport accidents (V00-V06,V09-V99,Y85)	10	N/A	N/A	N/A
Accidental falls (W00-W19)	14	N/A	N/A	N/A
Exposure to mechanical forces (W20-W46,W49-W61,W64)	0	N/A	N/A	N/A
Accidental drowning, submersion and threats to breathing (W65-W70,W73-W81,W83-W84)	0	N/A	N/A	N/A
Accidental poisoning (X40-X49)	16	N/A	N/A	N/A
Accidental exposure to other and unspecified factors (X50-X54,X57-X59)	0	N/A	N/A	N/A
Intentional self-harm (X60-X84,Y87.0)	29	15.5	9.75	21.25
Assault (X85-X99,Y00-Y09,Y35-Y36,Y87.1)	5	N/A	N/A	N/A
Adverse effects due to drugs and other substances (Y40-Y59,Y88.0)	0	N/A	N/A	N/A
Abnormal reaction following procedure (Y83-Y84,Y88.3)	0	N/A	N/A	N/A
Total	74	15.5	9.75	21.25

* 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.

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.

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

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