

Healthcare expenditure associated with diseases by health region in Western Australia 2018–19

Introduction and methods

The Burden of Disease in WA 2018 report provides estimates of the total non-fatal and fatal burden as well as the healthcare expenditure for the Western Australian population for 219 diseases (1). Approximately \$12.9 billion was estimated to be associated with these diseases. The financial impact of diseases and injuries on the health system provides important insights into the nature and drivers of healthcare spending. The aim of this bulletin is to provide information on the estimates of disease expenditure, and on the patterns of health services utilisation in the different health regions in Western Australia (WA) for the year 2018–19.

Healthcare expenditure data for WA for 2018–19 was provided by the Australian Institute of Health and Welfare (AIHW) (2). Estimates of disease expenditure were derived using a mix of ‘top-down’ and ‘bottom-up’ approaches, where the total expenditure across the health system was estimated and then allocated to relevant conditions based on the available service use data (2). Capital expenditure (e.g. new buildings and equipment), spending on community and public health programs, and indirect healthcare costs are not included in these estimates (1). Expenditure on disease groups and diseases were reported by health region and by area of expenditure (hospital, healthcare services, and referred medical services). Private emergency department expenditure was not included (2). A detailed description of the methodology used to produce expenditure estimates can be found in the *Disease Expenditure Study: Overview of analysis and methodology report* (2).

The AIHW mapped Australian Bureau of Statistics geographical area Statistical Area 3 (SA3) to WA health regions using the concordance file provided by the Epidemiology Directorate. Dental care expenditure could not be reported at health region level due to the unavailability of data at the SA3 level and has therefore been excluded throughout this report. Costs were allocated according to the health region of usual residence, which was not necessarily the same as the health region where care was provided. It is of note that the 2018 burden of disease data (Disability Adjusted Life Years) was unavailable at health region level.

The per capita healthcare expenditure was derived to compare the cost among health regions. However, this measure does not account for differences in the age structure, proportion of Aboriginal population or proportion of males to females in the populations across health regions. Please interpret the results with caution. In addition, the per capita cost can be volatile from year-to-year, especially in small geographical areas. Similar bulletin was produced for the disease expenditure by health region for

Box 1: Area of expenditure

- admitted patient (public and private)
- emergency department (public only)
- outpatient hospital services (public only)
- primary health care includes allied health, general practitioner, and pharmaceutical benefits scheme
- referred medical services includes specialists, pathology, and medical imaging.

2015. However, the 2018 results are not comparable with the 2015 cost bulletin due to methodological differences.

Results

Demographics

For the year 2018 (3), WA had a total population of 2.6 million (female = 50.0%, median age = 36.6 years, Aboriginal = 4.0%). The metropolitan area, comprising of the East Metro (EM), North Metro (NM) and South Metro (SM) regions had a total population of 2.1 million (female = 50.3%, median age = 36.2 years, Aboriginal = 2.1%). The country regions, comprising of the Goldfields (GOL), the Great Southern (GS), the Kimberley (KIM), the Midwest (MW), the Pilbara (PIL), the South West (SW) and the Wheatbelt (WHE) had a total population of 531,539 (female = 48.9%, median age = 38.2 years, Aboriginal = 11.4%). The Pilbara region has the smallest proportion (3.3%) of people of older age (≥ 65 years).

Table 1. Demographics by health region in WA for the year 2018.

	Total population	Female (%)	Median age	Aged <15 years (%)	Aged ≥ 65 years (%)	Aboriginal (%)
WA	2,595,192	50.0	36.6	19.5	14.4	4.0
EM	698,657	49.6	35.1	19.0	12.9	2.9
NM	721,314	50.7	36.6	19.4	14.4	1.3
SM	643,682	50.6	37.1	19.5	15.6	2.1
GOL	55,151	48.2	35.2	21.7	10.6	13.5
GS	60,803	50.2	42.9	19.2	20.5	4.8
KIM	36,014	51.3	31.9	25.2	6.7	51.4
MW	63,109	49.5	40.2	20.2	16.2	14.6
PIL	61,657	40.0	33.3	21.3	3.3	19.5
SW	178,406	51.2	40.7	20.4	17.6	3.1
WHE	76,399	48.8	45.1	18.7	20.5	6.1

Healthcare expenditure in WA

The total healthcare expenditure associated with diseases in WA was approximately \$11.4 billion (excluding approximately \$1.5 billion of dental care expenditure), equivalent to \$4,385 per capita for the year 2018–2019. The metropolitan area accounted for 78.1% (\$8,884 million, \$4,305 per capita) of the total expenditure (table 2). The country area had a total expenditure of \$2,497 million, however the per capita costs (\$4,697) were much higher when compared to the metropolitan areas and WA overall.

Table 2. Demographics and healthcare expenditure in the metropolitan and country areas in WA for the year 2018–19.

	Population	Female	Expenditure	Per capita
Metropolitan	2,063,653 Aboriginal: 2.1% Median age: 36.2	50.3%	\$8,884 million	\$4,305
Country	531,539 Aboriginal: 11.4% Median age: 38.2	48.9%	\$2,497 million	\$4,697

Healthcare expenditure by health regions

Figure 2 displays the healthcare expenditure and expenditure per capita by health region. The highest per capita spending in the metropolitan area was in the South Metro region – in the country area, it was in the Kimberley, followed by the Midwest (\$5,302 per capita) and the Wheatbelt (\$5,057 per capita).

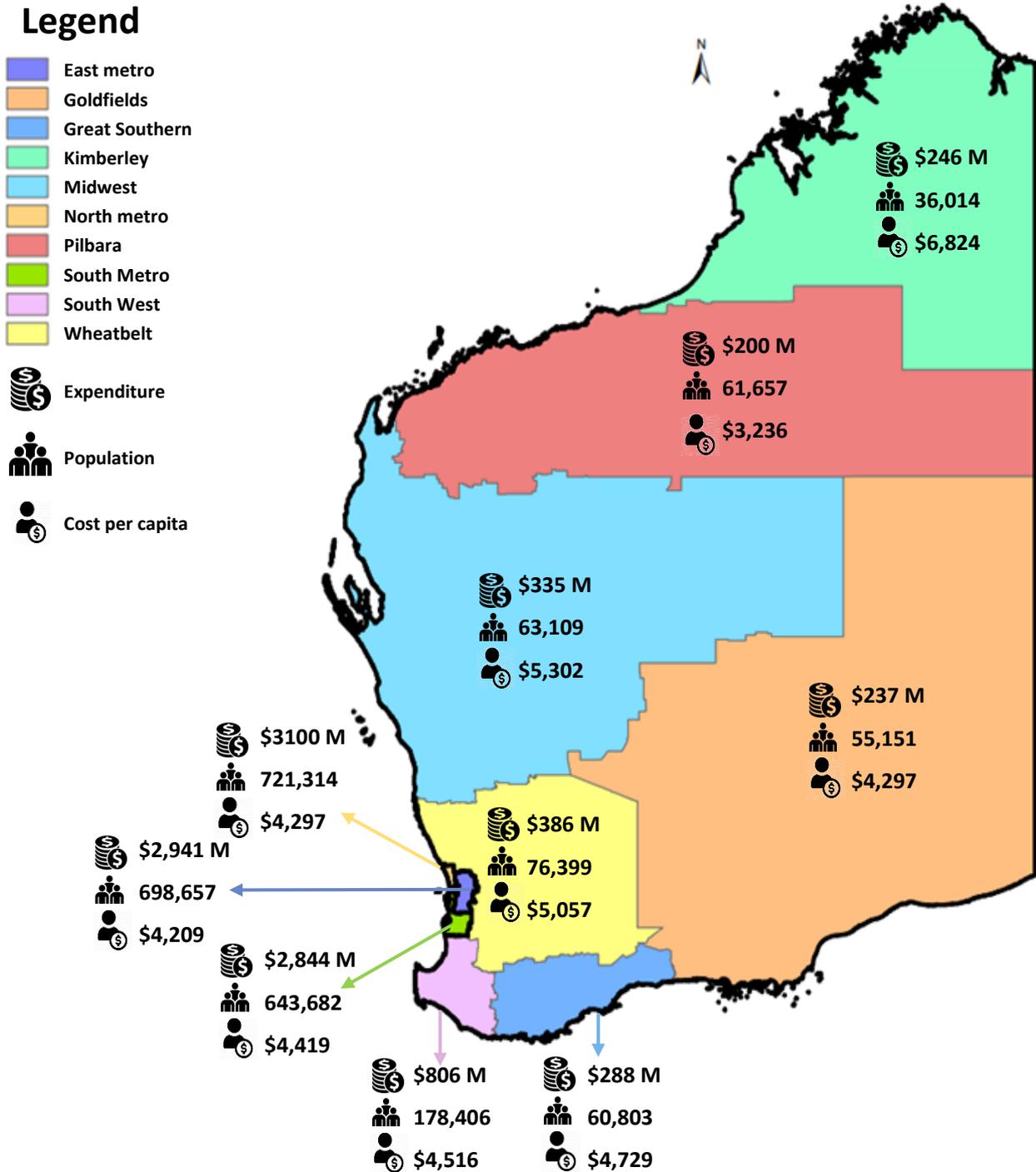


Figure 2. Health expenditure, population and cost per capita by health region, 2018–19.

Note: M = million.

Area of expenditure

The highest expenditure on healthcare services (excluding dental care) in WA was for hospitals (\$7,922 million, \$3,053 per capita) – accounting for 69.6 per cent of the WA disease expenditure included in this report. The total expenditure on hospitals for the metropolitan area was \$6,084 million (at \$2,948 per capita), and \$1,838 million for the country area (at \$3,459 per capita). The Kimberley had the highest per capita cost for hospital expenditure (\$6,036 per capita), which was 2 times higher than that of the lowest region, the Pilbara (\$2,699 per capita).

For primary health care and referred medical services, per capita expenditure in the metropolitan area was higher than that of the country area. The Great Southern region (\$1,082 per capita) had the highest per capita expenditure for primary health care while the North Metro region had the highest per capita expenditure for referred medical services at \$417 per capita. In comparison, the Pilbara region had the lowest per capita expenditure for both services.

Table 3. Healthcare services expenditure in WA and in health regions

	Hospital (\$)	Per capita (\$)	Primary health care (\$)	Per capita (\$)	Referred medical services (\$)	Per capita (\$)
WA	7,922 M	3,053	2,494 M	961	965 M	372
EM	2,037 M	2,916	656 M	940	247 M	354
NM	2,115 M	2,933	683 M	948	301 M	417
SM	1,931 M	3,000	661 M	1,028	251 M	391
Metropolitan	6,083 M	2,948	2,001 M	970	799 M	387
GOL	183 M	3,314	41 M	748	13 M	235
GS	201 M	3,304	66 M	1,082	21 M	343
KIM	217 M	6,036	22 M	609	6 M	179
MW	248 M	3,930	66 M	1,043	21 M	329
PIL	166 M	2,699	24 M	392	9 M	145
SW	547 M	3,065	192 M	1,077	67 M	374
WHE	276 M	3,614	81 M	1,064	29 M	379
Country	1,838 M	3,459	493 M	927	166 M	312

Note: M = million. Referred medical services include pathology and medical imaging.

Expenditures associated with specific healthcare services

The highest proportion of expenditure for all health regions was for public hospital inpatient services, ranging from 29.1 per cent in the North Metro region to 52.7 per cent in the Kimberley. The second highest proportion of expenditure was private hospital services for the metropolitan regions and most of the country regions except for the Kimberley and the Pilbara where emergency admission expenditure was higher than that of private hospitals. The Kimberley and the Pilbara also had the lowest proportions of allied health and specialist services compare to other regions.

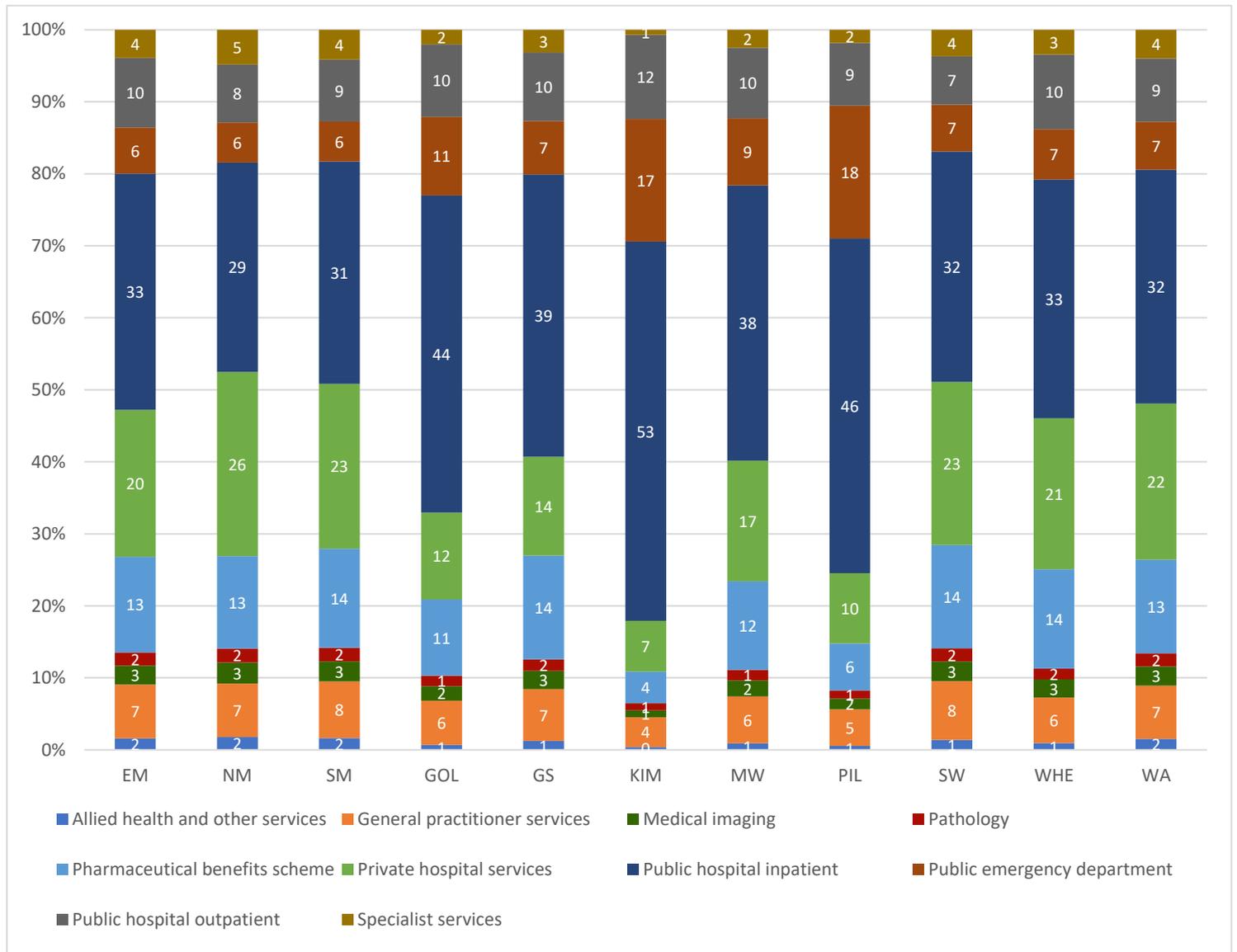


Figure 3. WA healthcare expenditure by health region, 2018–19.

Healthcare expenditure by disease group

The disease groups with highest health expenditure in WA were musculoskeletal conditions, cancer and other neoplasms, cardiovascular disorders, injury, and reproductive and maternal conditions (figure 4). Musculoskeletal conditions were among the top 5 disease groups in terms of healthcare expenditure in all health regions. Cancers were in almost all regions, except the Kimberley and the Pilbara. Cardiovascular diseases were also among the leading disease groups in all regions, except the Pilbara. In the Kimberley, infectious diseases and kidney diseases were among the top 5 most expensive disease

groups. Infectious diseases and gastrointestinal diseases were among the 5 most expensive disease groups in the Pilbara region.

Disease groups with high per capita expenditure in the health regions were (figure 4):

- musculoskeletal conditions – ranging from \$230 per capita in the Pilbara to \$690 per capita in the Wheatbelt
- cancer – ranging from \$401 per capita in the Goldfields to \$586 in the Midwest
- cardiovascular disorders – ranging from \$383 per capita in the Goldfields to \$599 in the Wheatbelt
- injury – ranging from \$350 per capita in the East Metro region to \$881 per capita in the Kimberley
- reproductive and maternal conditions – ranging from \$358 per capita in the South Metro region to \$709 per capita in the Kimberley.

More details on health expenditure for all disease group across ten health regions is provided in table 1 in Appendix 1.

	1 st	2 nd	3 rd	4 th	5 th
WA	Musculoskeletal (11.8%, \$515)	Cancer (11.0%, \$481)	Cardiovascular (9.9%, \$432)	Injury (8.7%, \$379)	Reproductive/ maternal (8.6%, \$376)
EM	Musculoskeletal (11.2%, \$470)	Cancer (10.5%, \$443)	Cardiovascular (9.5%, \$401)	Reproductive/ maternal (9.3%, \$392)	Injury (8.3%, \$350)
NM	Musculoskeletal (11.9%, \$512)	Cancer (11.3%, \$484)	Cardiovascular (9.6%, \$414)	Reproductive/ maternal (9.1%, \$390)	Mental (8.7%, \$373)
SM	Musculoskeletal (12.3%, \$542)	Cancer (11.7%, \$518)	Cardiovascular (10.2%, \$450)	Injury (8.2%, \$363)	Reproductive/ maternal (8.1%, \$358)
GOL	Musculoskeletal (10.6%, \$453)	Injury (9.9%, \$424)	Cancer (9.3%, \$401)	Infectious (8.9%, \$383)	Cardiovascular (8.9%, \$383)
GS	Cancer (12.7%, \$601)	Musculoskeletal (12.6%, \$597)	Cardiovascular (12.3%, \$583)	Injury (9.0%, \$426)	Mental (7.4%, \$348)
KIM	Injury (12.9%, \$881)	Infectious (10.8%, \$740)	Reproductive/ maternal (10.4%, \$709)	Kidney (8.5%, \$578)	Cardiovascular (7.1%, \$485)
MW	Musculoskeletal (11.5%, \$612)	Cancer (11.0%, \$586)	Cardiovascular (10.4%, \$552)	Injury (9.7%, \$517)	Infectious (7.8%, \$412)
PIL	Reproductive/ maternal (14.6%, \$471)	Injury (12.9%, \$417)	Infectious (11.6%, \$375)	Gastrointestinal (7.2%, \$233)	Musculoskeletal (7.1%, \$230)
SW	Musculoskeletal (13.6%, \$615)	Cancer (11.6%, \$526)	Cardiovascular (10.8%, \$486)	Injury (8.8%, \$396)	Gastrointestinal (7.5%, \$338)
WHE	Musculoskeletal (13.6%, \$690)	Cardiovascular (11.9%, \$599)	Cancer (11.8%, \$595)	Injury (9.5%, \$479)	Gastrointestinal (7.4%, \$375)

Figure 4. Proportion and per capita healthcare expenditure of top five disease groups by health region in WA, 2018–19.

Note: maternal and reproductive conditions exclude normal deliveries without complications and include some conditions affecting males.

Area of expenditure associated with healthcare services in metropolitan and country WA for top 8 disease groups

The 8 disease groups with the highest healthcare spending were the same when combining metropolitan regions and country regions. These were musculoskeletal disorders, cancers, cardiovascular diseases, injuries, reproductive and maternal conditions, mental and substance use disorders, gastrointestinal disorders, and infectious diseases. The rankings were slightly different in 2 areas. For example, mental and substance use disorders ranked sixth in the metropolitan, it ranked eighth in the country.

Figure 5 shows the proportion of healthcare spending for the top 8 disease groups for each area of expenditure.

- For primary health care expenditure and hospital outpatients, spending on cancers had the highest proportions.
- Injury by far dominated spending for emergency departments (ED) (29 per cent for both metro and country), followed by infectious diseases.
- Spending on hospital inpatients is relatively spread out with the highest proportion of spending on musculoskeletal conditions followed by cardiovascular diseases.

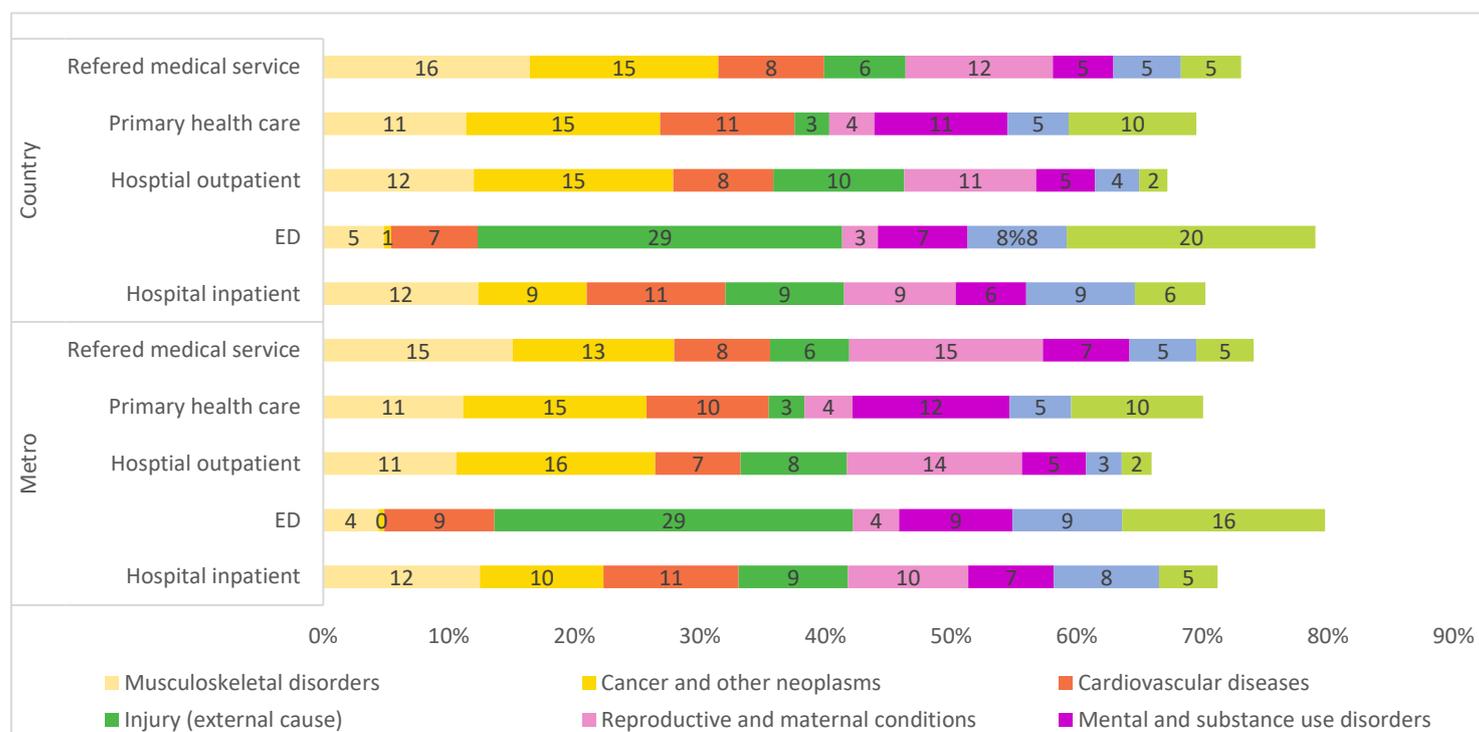


Figure 5. Proportion of spending for each area of expenditure by top eight disease group in metropolitan and country WA for the year 2018–19.

Note: the remaining percentage of expenditure for each area of expenditure comprises expenditure associated with other disease groups.

Healthcare expenditure by disease

Figure 6 provides an overview of the proportion and per capita healthcare expenditure of the ten diseases that attracted the highest expenditure in each health region for the year 2018–19.

- Falls, osteoarthritis, backpain and problems, coronary heart disease and depressive disorders were ranked as the top 5 diseases in WA as well as in the metropolitan areas

- Falls, backpain and problems, and coronary heart disease was among the top 10 disease for all health regions, with falls ranked among the top 3 diseases in all health regions
- The proportion of expenditure for falls range between 3.1 to 3.9 per cent, with the lowest per capita was \$114 in the Pilbara and the highest was \$240 in the Kimberley
- The proportion of expenditure relating to backpain and problems ranged between 1.3 to 3.1 per cent. The lowest per capita was in the Pilbara (\$55 per capita) and the highest per capita was in the Wheatbelt (\$157 per capita)
- The proportion of expenditure for coronary heart disease ranged between 1.1 to 2.5 per cent. The lowest per capita was in the Pilbara (\$37 per capita) and the highest per capita was in the Great Southern (\$116 per capita)
- Osteoarthritis ranked among the top 3 diseases for eight health regions and was not among the top 10 diseases for the Kimberley and the Pilbara
- Lower respiratory infections were among the top 10 diseases for nine health regions, and was among the top 5 for the Goldfield (\$89 per capita), the Kimberley (\$198 per capita) and the Pilbara (\$94 per capita)
- Type 2 diabetes and depressive symptoms were ranked among the 10 diseases for 8 health regions, excluding the North and South metro regions for type 2 diabetes, and the Midwest and the Kimberley for depressive symptoms
- Anxiety disorders were ranked between sixth and tenth position for seven health regions except for the Kimberley, the Midwest and the Wheatbelt
- 6.7% per cent of the expenditure in the Kimberley was on chronic kidney diseases making it the top ranked disease in the region with a per capita of \$454 per capita.
- Skin infections (including cellulitis) were ranked second for the Kimberley (\$276 per capita) and the Pilbara (\$99 per capita).

	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th
WA	Osteoarthritis (3.3%, \$145)	Falls (3.3%, \$145)	Backpain/ problems (2.8%, \$123)	Coronary heart disease (1.9%, \$82)	Depressive disorders (1.7%, \$75)	Chronic kidney disease (1.5%, \$67)	Anxiety disorders (1.5%, \$66)	Lower respiratory infections (1.4%, \$62)	Type 2 diabetes (1.3%, \$56)	Cataract (1.3%, \$56)
EM	Falls (3.1%, \$129)	Osteoarthritis (3.0%, \$126)	Backpain/ problems (2.7%, \$115)	Coronary heart disease (1.8%, \$76)	Depressive disorders (1.8%, \$76)	Anxiety disorders (1.6%, \$66)	Chronic kidney disease (1.5%, \$64)	Lower respiratory infections (1.4%, \$57)	Type 2 diabetes (1.3%, \$55)	Breast cancer (1.2%, \$50)
NM	Falls (3.4%, \$145)	Osteoarthritis (3.2%, \$139)	Backpain/ problems (2.9%, \$123)	Depressive disorders (2.0%, \$84)	Coronary heart disease (1.8%, \$79)	Anxiety disorders (1.7%, \$74)	Non-melanoma skin cancer (1.4%, \$62)	Lower respiratory infections (1.3%, \$54)	Cataract (1.2%, \$54)	Breast cancer (1.2%, \$53)
SM	Osteoarthritis (3.5%, \$153)	Falls (3.2%, \$143)	Backpain/ problems (3.0%, \$134)	Coronary heart disease (1.9%, \$84)	Depressive disorders (1.7%, \$74)	Anxiety disorders (1.5%, \$65)	Cataract (1.5%, \$65)	Chronic kidney disease (1.4%, \$61)	Breast cancer (1.3%, \$59)	Lower respiratory infections (1.3%, \$58)
GOL	Falls (3.2%, \$138)	Chronic kidney disease (3.1%, \$133)	Osteoarthritis (2.9%, \$123)	Backpain/ problems (2.5%, \$107)	Lower respiratory infections (2.1%, \$89)	Type 2 diabetes (1.7%, \$74)	Skin infections (incl. cellulitis) (1.5%, \$65)	Depressive disorders (1.4%, \$62)	Coronary heart disease (1.4%, \$61)	Anxiety disorders (1.3%, \$55)
GS	Osteoarthritis (4.3%, \$205)	Falls (3.5%, \$167)	Backpain/ problems (2.7%, \$130)	Coronary heart disease (2.5%, \$116)	Prostate cancer (1.6%, \$78)	Depressive disorders (1.6%, \$76)	Anxiety disorder (1.5%, \$71)	Type 2 diabetes (1.4%, \$68)	Atrial fibrillation and flutter (1.4%, \$67)	Non-melanoma skin cancer (1.4%, \$66)
KIM	Chronic kidney disease (6.7%, \$454)	Skin infections (incl. cellulitis) (4.0%, \$276)	Falls (3.5%, \$240)	Lower respiratory infections (2.9%, \$198)	Schizophrenia (1.6%, \$110)	Upper respiratory infections (1.5%, \$101)	Type 2 diabetes (1.5%, \$100)	Pre-term and low birth weight (1.4%, \$96)	Backpain/ problems (1.3%, \$90)	Coronary heart disease (1.3%, \$88)
MW	Osteoarthritis (3.7%, \$196)	Falls (3.5%, \$184)	Chronic kidney disease (2.8%, \$148)	Backpain/ problems (2.2%, \$118)	Coronary heart disease (2.0%, \$105)	Lower respiratory infections (1.9%, \$99)	Skin infections (incl. cellulitis) (1.8%, \$95)	Type 2 diabetes (1.8%, \$94)	Prostate cancer (1.4%, \$75)	Non-melanoma skin cancer (1.2%, \$66)
PIL	Falls (3.5%, \$114)	Skin infections (incl. cellulitis) (3.0%, \$99)	Lower respiratory infections (2.9%, \$94)	Chronic kidney disease (2.8%, \$91)	Upper respiratory infections (2.0%, \$64)	Backpain/ problems (1.7%, \$55)	Anxiety disorders (1.2%, \$39)	Type 2 diabetes (1.2%, \$38)	Coronary heart disease (1.1%, \$37)	Depressive disorders (1.1%, \$36)
SW	Osteoarthritis (4.5%, \$205)	Falls (3.5%, \$159)	Backpain/ problems (2.8%, \$128)	Coronary heart disease (2.2%, \$98)	Cataract (1.6%, \$74)	Depressive disorders (1.6%, \$72)	Lower respiratory infections (1.5%, \$66)	Anxiety disorders (1.4%, \$64)	Non-melanoma skin cancer (1.3%, \$60)	Type 2 diabetes (1.3%, \$58)
WHE	Osteoarthritis (4.6%, \$233)	Falls (3.9%, \$196)	Backpain/ problems (3.1%, \$157)	Coronary heart disease (2.3%, \$114)	Type 2 diabetes (1.6%, \$83)	Non-melanoma skin cancer (1.5%, \$76)	Cataract (1.5%, \$74)	Depressive disorders (1.4%, \$69)	Breast cancer (1.3%, \$67)	Lower respiratory infections (1.3%, \$65)

Figure 6. Proportion of expenditure and per capita for top 10 diseases by health region in WA for the year 2018–19.

Note: ‘other’ or ‘unknown’ conditions, for example, other cardiovascular diseases, have been excluded from the ranking.

Summary

In 2018–19, more than \$11.4 billion was spent on health care costs attributable to the burden of disease groups (excluding dental care expenditure) in WA. Of this, \$8.9 billion (78.1 per cent) was spent on residents of the 3 metropolitan health regions (East, North and South) which aligned with the proportion of the WA population living in those regions.

The highest proportion of healthcare expenditure in all health regions was on public hospital admissions. The proportion of expenditure on public hospital admissions was higher in the country regions (32.0 to 52.7 per cent) compared to the metro regions (29.1 to 32.8 per cent). The Kimberley region had the highest expenditure on public hospital admissions per capita while the Pilbara region had the lowest compared to other metropolitan and country regions.

The disease groups with the highest per capita expenditure across most health regions were musculoskeletal conditions, cancers, and cardiovascular diseases. The Wheatbelt region had the highest per capita expenditure for musculoskeletal conditions and cardiovascular diseases. This may relate to the older population profile in the Wheatbelt region (median age of 45 years) compared to other regions. The Kimberley had the highest per capita expenditure on injuries among all health regions. The Kimberley has a high proportion of Aboriginal Australians (51.9 per cent) and results from the AIHW study for the year 2018 showed that injuries were the second leading cause of burden for Aboriginal Australians in WA (4). The Kimberley followed by the Pilbara had the highest per capita healthcare expenditure on reproductive and maternal conditions. The median age of the population in these regions were around the age of parents giving birth for the year 2018–19 in Australia (5).

Falls, back pain and problems, and coronary heart disease were among the top 10 diseases with the highest expenditure in all health regions. Falls or osteoarthritis were the two diseases with high per capita expenditure in almost all health regions. In the Kimberley, chronic kidney disease incurred highest costs followed by skin infections (including cellulitis).

This report provides data on the financial cost of healthcare in the WA health regions. The information provided in this report can assist with decision-making on policy and programs specific to the needs of each health region, particularly resource allocation, based on their population structure and healthcare needs.

Acknowledgments

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Enquiries

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Table 1. Expenditure and proportion of expenditure associated with disease groups by health

	EM	NM	SM	GOL	GS	KIM	MW	PIL	SW	WHE	Total
Musculoskeletal disorders	328M 11.2%	369M 11.9%	349M 12.3%	25M 10.6%	37M 12.7%	15M 6.1%	39M 11.5%	14M 7.1%	110M 13.6%	53M 13.6%	1,338M 11.8%
Cancer & other neoplasms	309M 10.5%	349M 11.3%	333M 11.7%	22M 9.3%	37M 12.7%	11M 4.7%	37M 11.0%	10M 5.2%	94M 11.6%	45M 11.8%	1,249M 11.0%
Cardiovascular diseases	280M 9.5%	298M 9.6%	290M 10.2%	21M 8.9%	35M 12.3%	17M 7.1%	35M 10.4%	11M 5.8%	87M 10.8%	46M 11.9%	1,122M 9.9%
Injury	245M 8.3%	260M 8.4%	234M 8.2%	23M 9.9%	26M 9.0%	32M 12.9%	33M 9.7%	26M 12.9%	71M 8.8%	37M 9.5%	984M 8.7%
Reproductive & Maternal conditions	274M 9.3%	281M 9.1%	231M 8.1%	18M 7.5%	16M 5.4%	26M 10.4%	23M 7.0%	29M 14.6%	55M 6.8%	24M 6.2%	976M 8.6%
Mental & Substance use disorders	238M 8.1%	269M 8.7%	211M 7.4%	17M 7.1%	21M 7.4%	16M 6.6%	20M 5.9%	12M 5.9%	56M 7.0%	23M 5.9%	883M 7.8%
Gastrointestinal disorders	207M 7.0%	203M 6.5%	199M 7.0%	16M 6.9%	21M 7.3%	16M 6.5%	22M 6.7%	14M 7.2%	60M 7.5%	29M 7.4%	788M 6.9%
Infectious diseases	200M 6.8%	191M 6.2%	182M 6.4%	21M 8.9%	19M 6.5%	27M 10.8%	26M 7.8%	23M 11.6%	50M 6.2%	22M 5.7%	760M 6.7%
Blood & metabolic disorders	166M 5.7%	160M 5.2%	158M 5.6%	16M 6.5%	15M 5.1%	12M 4.8%	18M 5.5%	11M 5.5%	43M 5.4%	22M 5.6%	621M 5.5%
Skin disorders	104M 3.6%	111M 3.6%	101M 3.5%	9M 3.6%	9M 3.2%	15M 6.1%	14M 4.1%	11M 5.4%	28M 3.5%	13M 3.4%	415M 3.6%
Respiratory diseases	107M 3.6%	112M 3.6%	103M 3.6%	9M 3.8%	10M 3.4%	9M 3.5%	12M 3.7%	7M 3.4%	29M 3.6%	15M 3.8%	412M 3.6%
Hearing & vision disorders	101M 3.4%	116M 3.7%	107M 3.8%	6M 2.5%	10M 3.3%	5M 2.1%	11M 3.3%	4M 2.0%	32M 3.9%	14M 3.6%	405M 3.6%
Kidney & urinary diseases	102M 3.5%	92M 3.0%	96M 3.4%	12M 5.1%	9M 3.3%	21M 8.5%	15M 4.6%	9M 4.3%	23M 2.8%	12M 3.2%	392M 3.4%
Neurological conditions	103M 3.5%	115M 3.7%	97M 3.4%	7M 2.8%	10M 3.6%	7M 2.7%	9M 2.7%	4M 2.1%	25M 3.1%	12M 3.2%	389M 3.4%
Endocrine disorders	82M 2.8%	81M 2.6%	77M 2.7%	7M 3.2%	8M 2.9%	6M 2.5%	11M 3.4%	5M 2.3%	22M 2.8%	12M 3.2%	313M 2.7%
Infant & congenital conditions	69M 2.3%	63M 2.0%	55M 1.9%	6M 2.3%	4M 1.3%	9M 3.5%	5M 1.6%	8M 3.9%	14M 1.8%	6M 1.5%	239M 2.1%
Oral disorders	24M 0.8%	28M 0.9%	22M 0.8%	2M 0.9%	2M 0.7%	3M 1.2%	4M 1.0%	2M 1.0%	7M 0.9%	2M 0.6%	96M 0.8%

regions

Note: colour gradient based on proportion of healthcare expenditure per region associated with given disease group.



Total WA cost excluded dental care expenditure.