



# Specific disease burden in Western Australia, 2011

## Introduction

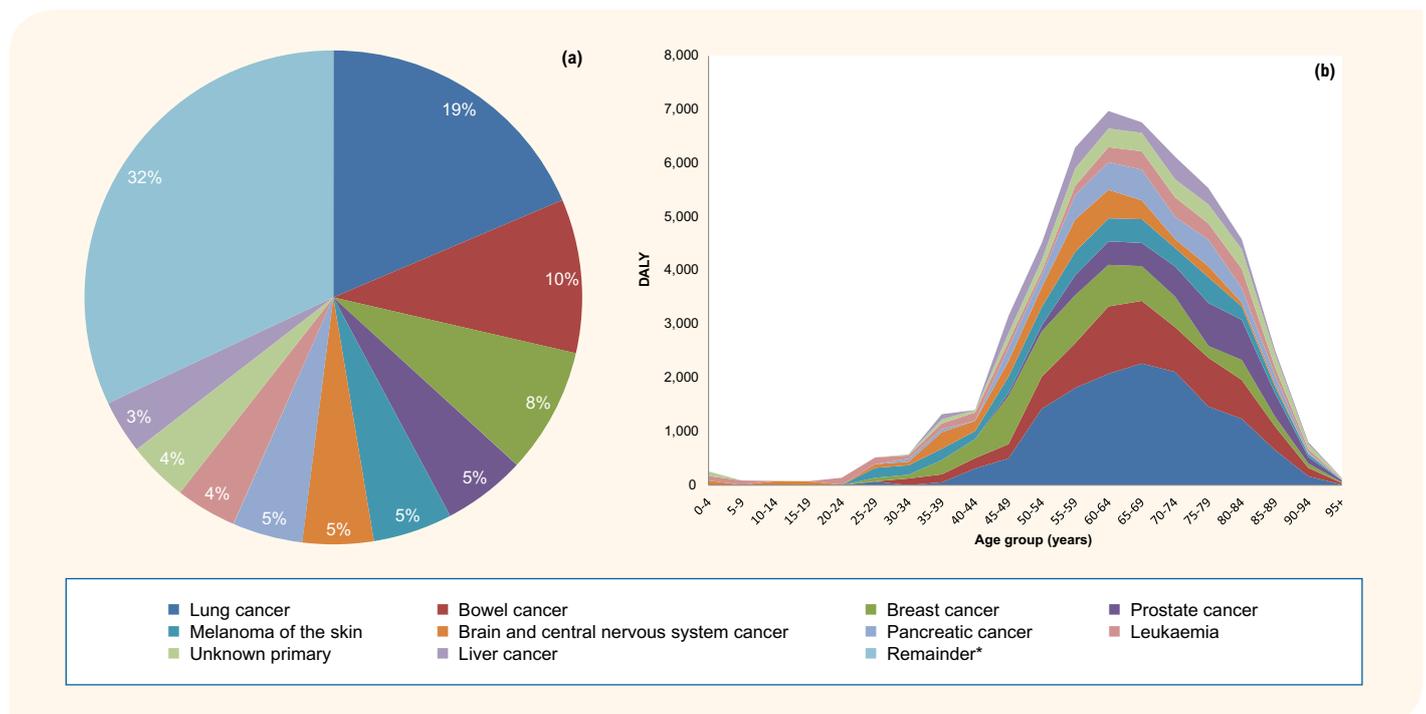
This fact sheet forms part of a series which expands upon Western Australia (WA) findings presented in the report entitled *Impact and causes of illness and deaths in Australia 2011*.<sup>1</sup> It should be read in conjunction with the *Overview of the burden of disease in Western Australia 2011*.<sup>2</sup>

This fact sheet presents more detailed results for the five leading broad causes of the burden of disease for WA in 2011. It explores each broad disease group separately, detailing specific diseases within each group in terms of Years of Life Lost (YLL) and Years Lost due to Disability (YLD), gender and age.

In 2011, the leading cause of disease burden in WA was cancer and other neoplasms, followed by mental and substance use disorders, cardiovascular diseases, musculoskeletal conditions and injuries.<sup>2</sup> In comparison to Australia, the top five disease groups were the same, however, mental and substance use disorders were ranked higher in WA.

## 1. Cancers and other neoplasms

**Figure 1. Proportion of total cancer burden (DALY) by disease (a) and number of DALYs by disease and age (b), WA 2011**



\* Remainder includes all other benign, in-situ and uncertain neoplasms and other malignant neoplasms.

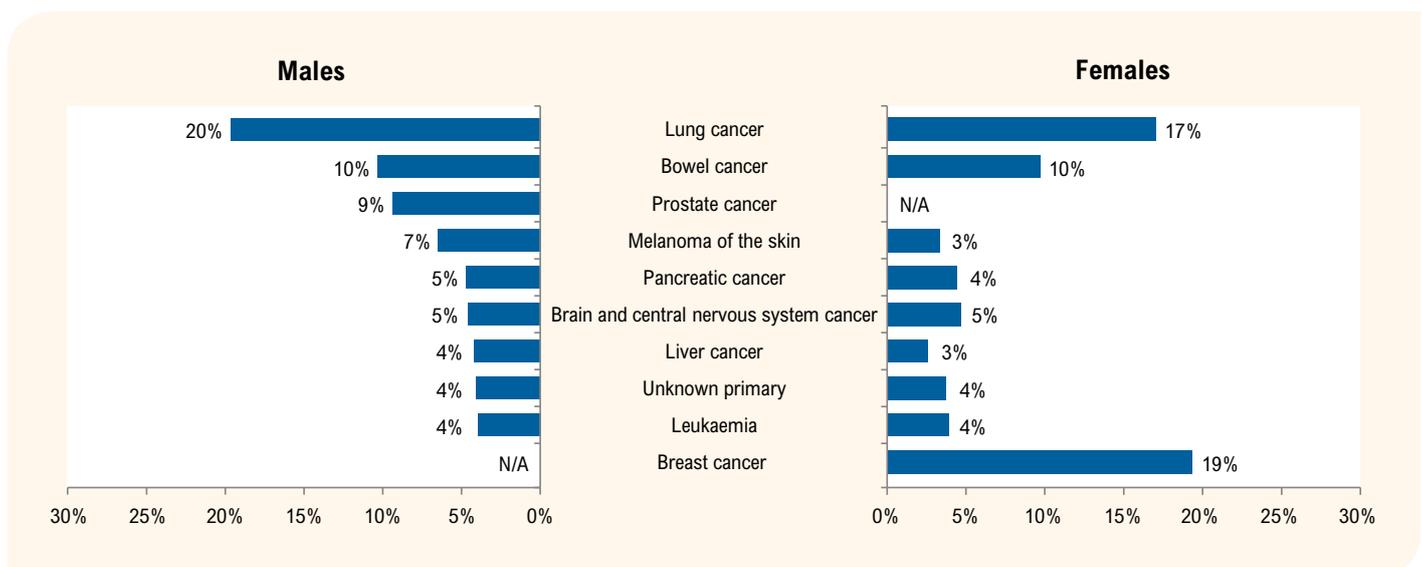
## Data source

Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: impact and causes of illness and death in Australia 2011. Canberra: Australian Institute of Health and Welfare.

[www.aihw.gov.au/publication-detail/?id=60129555173](http://www.aihw.gov.au/publication-detail/?id=60129555173)

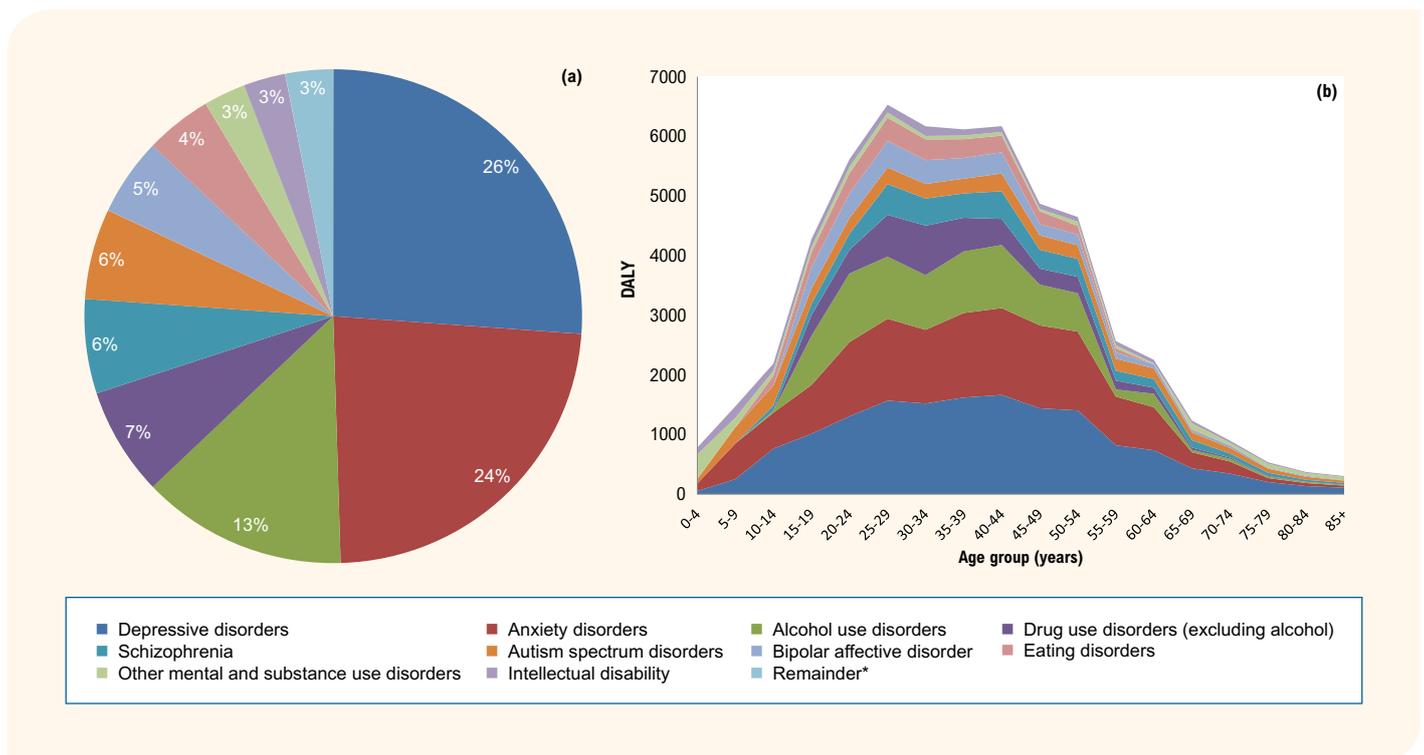
- Cancer and other neoplasms were responsible for 18% of the total disease burden (Disability Adjusted Life Years, DALY) in WA in 2011. The majority of burden was due to premature deaths (94% YLL, 6% YLD).
- Cancers of the lung, bowel, breast, prostate and melanoma of the skin together accounted for almost half of the total cancer burden.
- The DALY age standardised rate (ASR) of total cancer burden for males was 38.7, for females was 26.0.
- For males: lung, bowel, prostate, melanoma of the skin and pancreatic cancers were the top five causes, accounting for half of total cancer burden in males; whereas for females: breast, lung, bowel, ovarian and brain and central nervous system cancers were the top five causes, accounting for nearly 60% of total cancer burden in females.
- The cancer burden varied by age. Among the major cancers, burden from breast cancer and melanoma of the skin appeared at a relatively earlier age, around age 30, while prostate cancer emerged later, at around age 45.

**Figure 2. Proportion of total cancer burden (DALY) by disease and gender, WA 2011**



## 2. Mental and substance use disorders

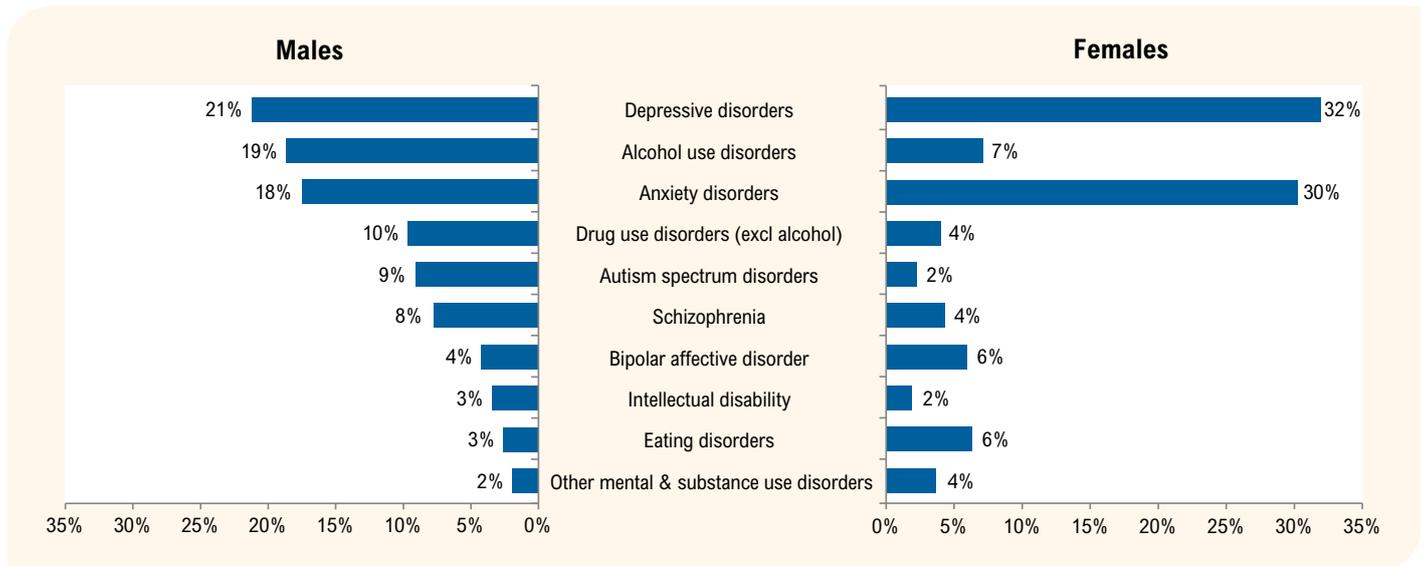
**Figure 3. Proportion of total mental and substance use disorders burden (DALY) by disease (a) and number of DALYs by disease and age (b), WA 2011**



\* Remainder includes conduct disorder and attention deficit hyperactivity disorder

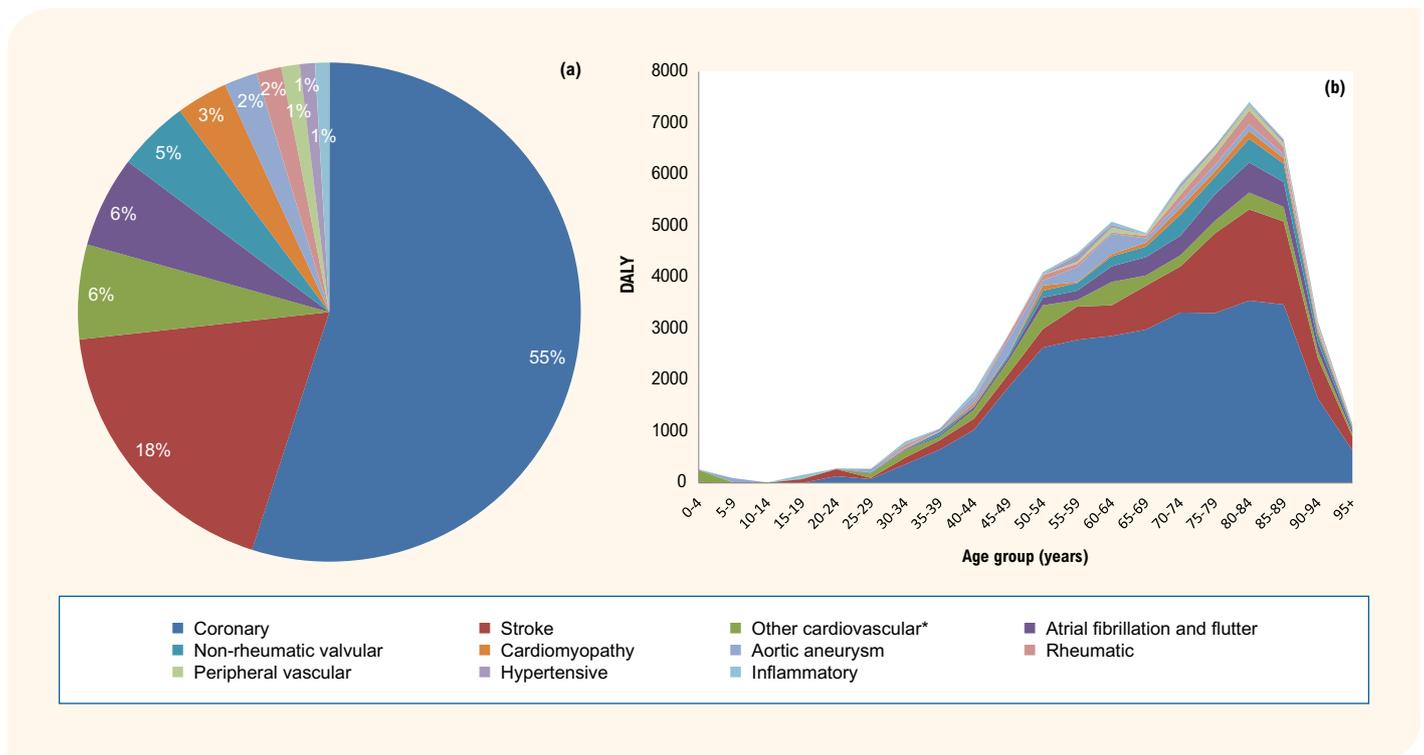
- Mental and substance use disorders were responsible for 14% of the total disease burden in WA in 2011 with most of the burden relating to living with illness (3% YLL, 97% YLD).
- Depressive, anxiety and alcohol use disorders caused more than 60% of the burden in this disease group.
- Depressive disorders were ranked the fourth leading cause of specific disease burden in WA with a DALY ASR of 6.5 compared to ninth nationally with a DALY ASR of 5.8.<sup>1</sup>
- Depressive and anxiety disorders combined made up to a greater proportion of mental and substance use burden for females (62%) than males (39%) whereas alcohol and drug use disorders combined made up a greater burden for males (28%) than females (11%).
- The rate of burden (DALY ASR) for autism spectrum disorders was almost 5 times higher for males than females, and 3 times higher for alcohol and drug use disorders.
- Autism spectrum disorders were ranked fifth most common burden for mental and substance use disorders by males (9%), whereas for females it ranks only ninth (2%).
- Burden from the major causes in this disease group mainly affected the population at ages 15-54.

**Figure 4. Proportion of total mental and substance use disorders burden (DALY) by disease and gender, WA 2011**



### 3. Cardiovascular diseases

**Figure 5. Proportion of total cardiovascular diseases burden (DALY) by disease (a) and number of DALYs by disease and age (b), WA 2011**

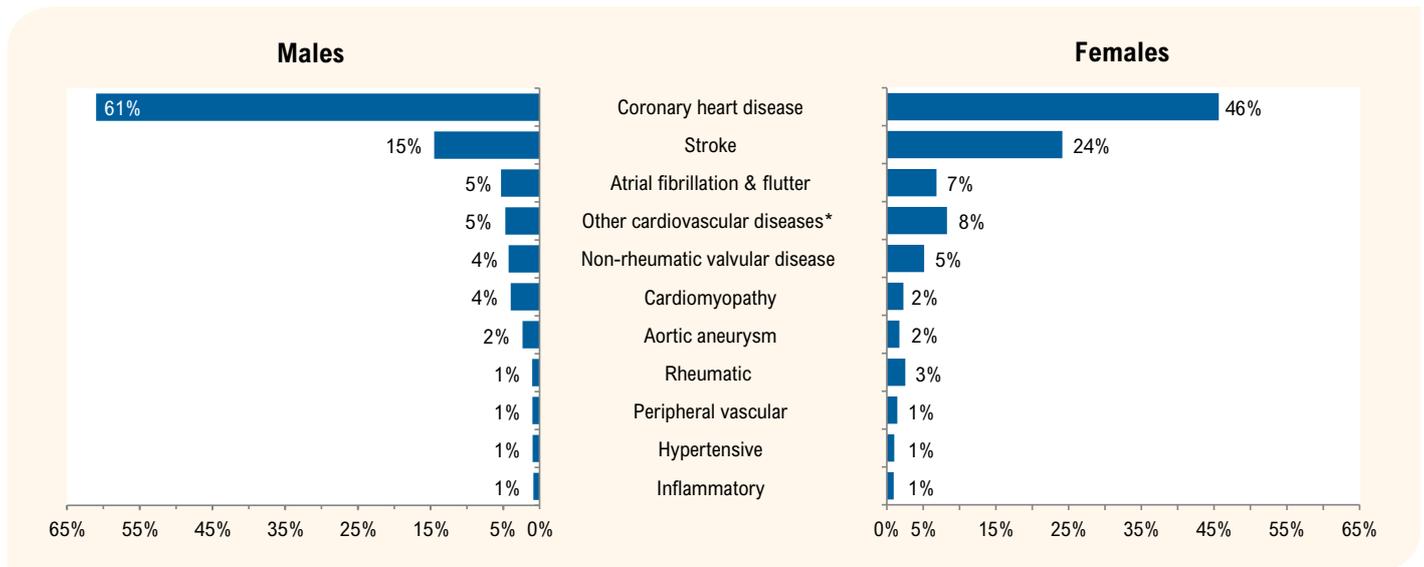


\* Other cardiovascular conditions include hypertensive, inflammatory and rheumatic heart diseases.

- Cardiovascular diseases were responsible for 13% of the total disease burden in WA in 2011 and the majority of burden was due to premature death (80% YLL, 20% YLD).
- Atrial fibrillation and flutter was the only disease in this group where the proportion of YLD (78%) was higher than YLL (22%).
- Coronary heart disease was the leading cause of burden for specific diseases for both males and females in WA in 2011 with females peaking at ages 85-89 and males at ages 65-69.

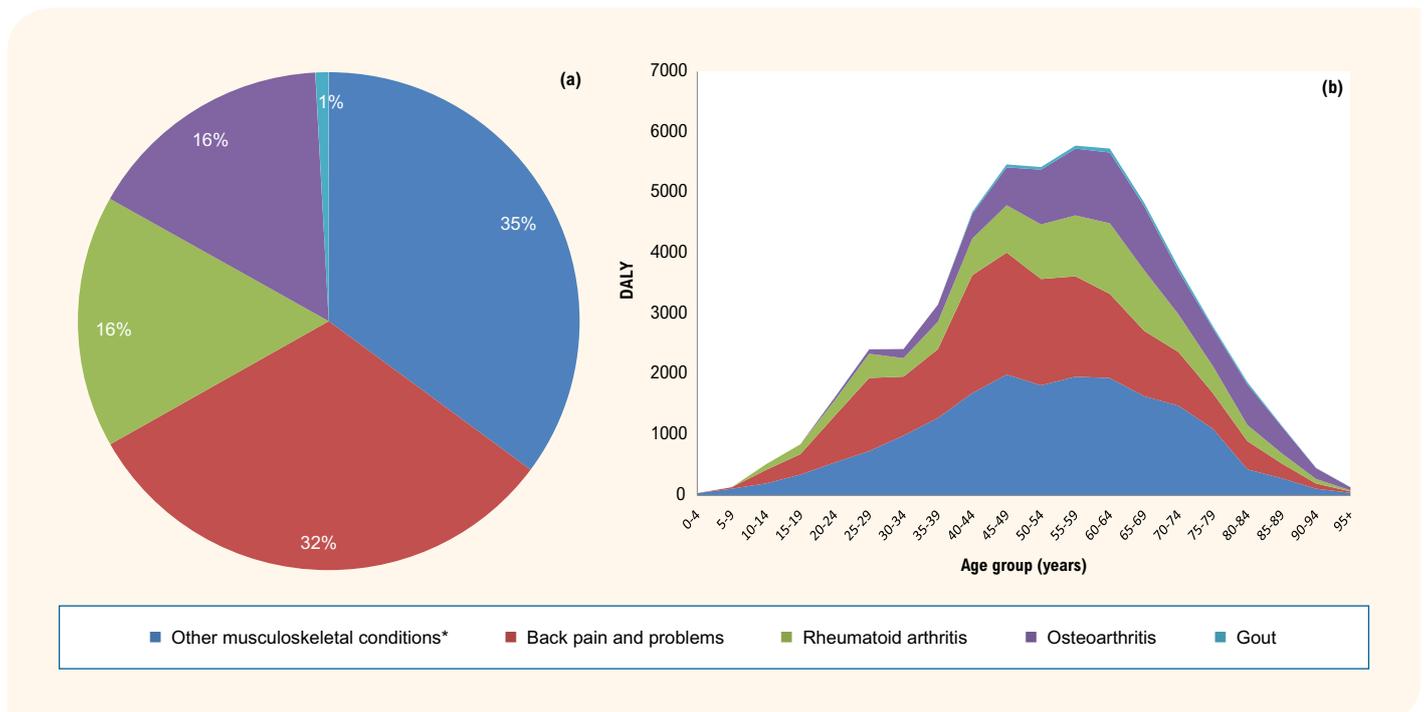
- Coronary heart disease alone accounted for more than half (55%) of the burden in the cardiovascular disease group.
- Stroke, atrial fibrillation and flutter and other cardiovascular diseases were the next major causes in this disease group.
- Males experienced almost twice the cardiovascular burden than females, where the DALY ASR for males was 31.4 and for females was 17.0.
- The burden due to cardiovascular diseases increased rapidly after age 40, with the peak at ages 80-84.
- For stroke, there was a steep increase from ages 45-49 for males, which peaked at ages 80-84. For females, there was a steep increase in stroke DALY from ages 40-44, which peaked at ages 85-89.

**Figure 6. Proportion of total cardiovascular diseases burden (DALY) by disease and gender, WA 2011**



## 4. Musculoskeletal conditions

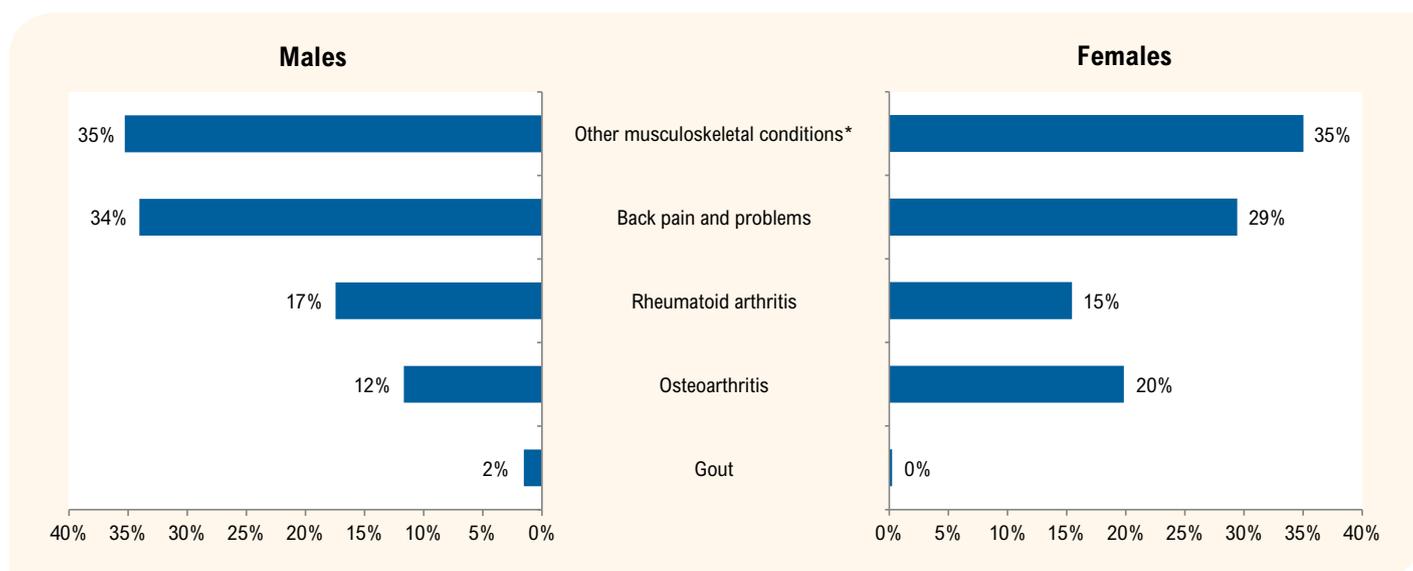
**Figure 7. Proportion of total musculoskeletal conditions burden (DALY) by disease (a) and number of DALYs by disease and age (b), WA 2011**



\* Other musculoskeletal conditions include other and ill-defined arthritis; chronic pain in joints, muscles and other soft tissue; and systemic lupus erythematosus.

- Musculoskeletal conditions contributed to 12% of the total health loss in WA in 2011 and 98% of this health loss was due to living with those conditions (2% YLL, 98% YLD).
- Two thirds of the burden in this disease group (67%) was due to other musculoskeletal conditions and back pain or problems.
- For the musculoskeletal disease group, females experienced higher burden than males, where DALY ASR for females was 23.0 and for males was 21.2.
- Females had approximately twice the total health loss due to osteoarthritis than males.
- The proportion of back pain and problems in this disease group was higher for males (34%) than females (29%).
- Almost 70% of musculoskeletal conditions occurred in the population aged 40-74.
- Back pain and problems appeared relatively early, from age 20, while rheumatoid arthritis and osteoarthritis emerged later, at age 45.

**Figure 8. Proportion of total musculoskeletal conditions burden (DALY) by disease and gender, WA 2011**



### Age Standardised Rate (ASR)

All ASRs are DALYs per 1,000 people

### Suggested citation

Epidemiology Branch, Public Health Division, Western Australia Department of Health 2017. Specific disease burden in Western Australia, 2011. Perth: Department of Health.

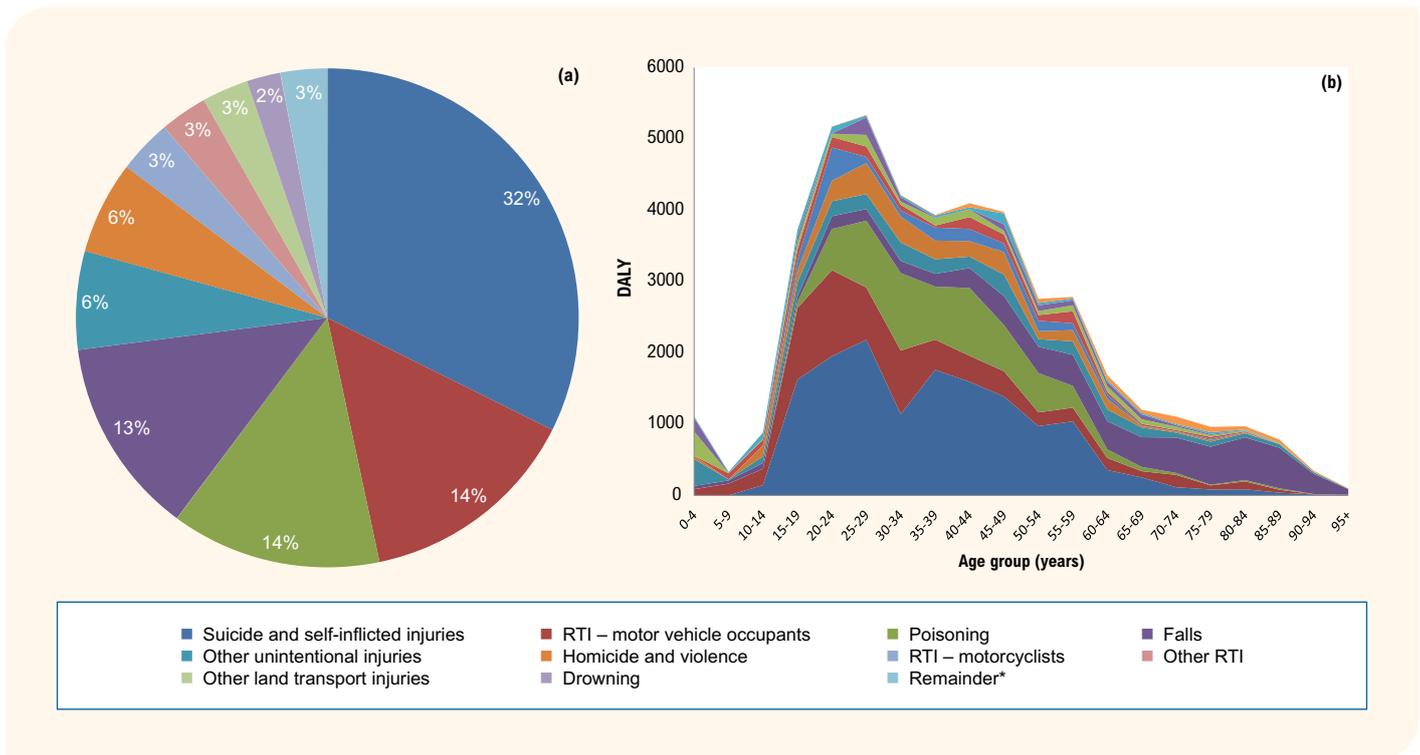
### Download fact sheets

WA Burden of Disease 2011 Fact Sheets are available to download from

[ww2.health.wa.gov.au/Articles/N\\_R/Population-health-statistics](http://ww2.health.wa.gov.au/Articles/N_R/Population-health-statistics)

## 5. Injuries

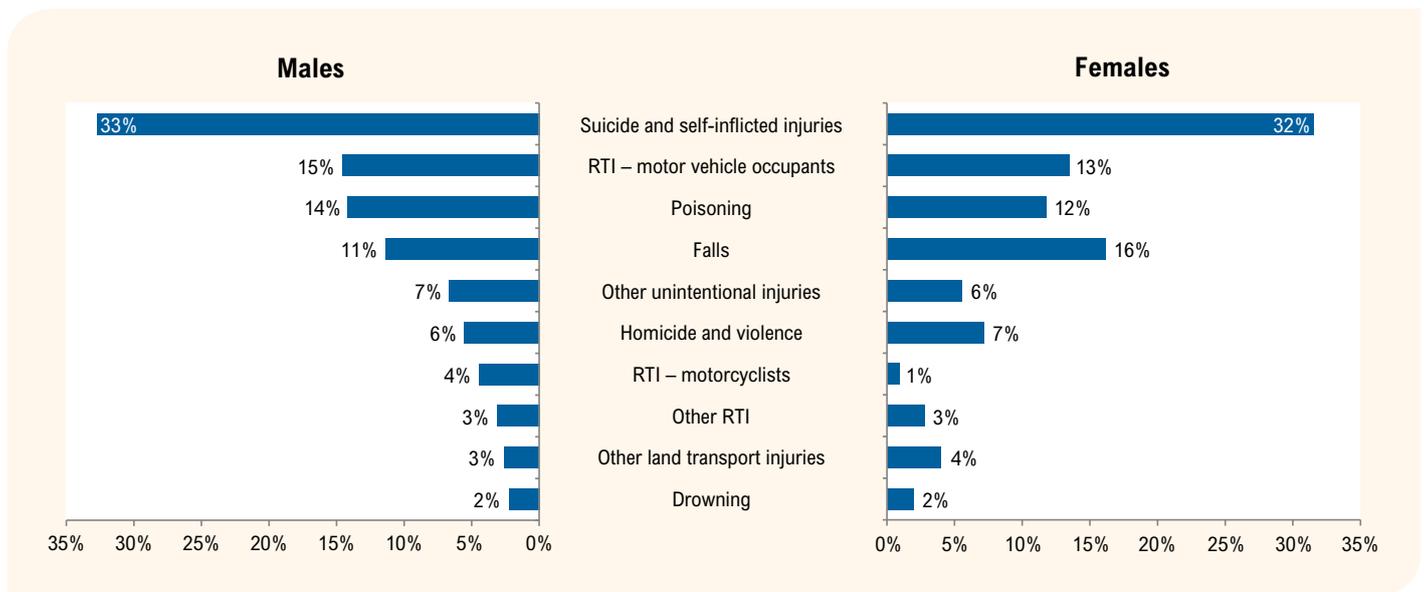
**Figure 9. Proportion of total injuries burden (DALY) by injury (a) and number of DALYs by injury and age (b), WA 2011**



\* Remainder includes injuries due to fire, burns and scalds and all other external causes of injury

- Injury contributed to 10% of the total health loss in WA in 2011. The majority (82%) of health loss in this disease group was due to premature death.
- Suicide and self-inflicted injuries, road traffic injuries (RTI)-motor vehicle occupants and poisoning accounted for 60% of the total injury burden.
- Suicide and self-inflicted injuries was ranked the fifth leading cause of specific disease burden in WA with a DALY ASR of 6.2 compared to tenth nationally with a DALY ASR of 5.1.<sup>1</sup>
- Males had higher rate of burden (DALY ASR) than females for all specific injuries with the largest discrepancy for RTI – motorcyclists where the rate was 12 times higher.
- The greatest impact of injury burden was between ages 15 and 59, accounting for 83% of the male injury burden and 70% of the female injury burden.
- The proportion of injury burden from falls increased from age 40 and became the major contributor to injury burden from age 60. From age 60 onwards, females had a higher proportion of burden from falls compared to their male counterparts, except for the age group of 70-74 years where falls accounted for 48% of the injury burden for males and 40% for females of the same age group.
- There was a noticeable proportion of burden from other unintentional injuries (34%), other land transport (31%) injuries and drowning (17%) in children aged 0-4 years. These three leading injuries of burden for the 0-4 year age group accounted for 75% of the male injury burden compared to 90% for females (for the 0-4 year age group).

**Figure 10. Proportion of total injuries burden (DALY) by disease and gender, WA 2011**



## Reference

1. Australian Institute of Health and Welfare 2016. Australian Burden of Disease Study: impact and causes of illness and death in Australia 2011. Canberra: Australian Institute of Health and Welfare.
2. Epidemiology Branch, Public Health Division, Western Australia Department of Health 2016. Overview of the burden of disease in WA, 2011. Perth: Department of Health.

## Contact us

At [epi@health.wa.gov.au](mailto:epi@health.wa.gov.au) for any enquiries or similar information on other disease.

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