

## 4.1 Burden of disease

To ensure a health system is aligned to a country's health challenges, policy makers must be able to compare the effects of different conditions that cause ill-health and premature death. Burden of disease analysis simultaneously compares the non-fatal burden (impact of ill-health) and fatal burden (impact of premature death) of a comprehensive list of diseases and injuries, and quantifies the contribution of various risk factors to the total burden as well as to individual diseases and injuries.

The most recent global estimates come from the Global Burden of Disease Study 2010, which covered 241 diseases and injuries and 57 risk factors for 187 countries for 1990, 2005 and 2010 (The Lancet 2012). To enable global comparability on such a broad scale, the study needed to introduce innovative methods as well as manage limitations in data availability.

The last national burden of disease analysis that provided estimates for the Australian and Aboriginal and Torres Strait Islander populations was published in 2007, based on 2003 data. The AIHW is updating these estimates using the 2010 global burden of disease methodology where possible, with some enhancements to better suit the Australian and Indigenous contexts, and using more recent and detailed Australian data. The revised estimates are expected to be finalised in 2015.

What follows is a snapshot of the global study findings for the Australasia region (Australia and New Zealand) published in late 2012.

### **What contributes most to burden of disease in Australasia?**

- Non-communicable (largely chronic) diseases accounted for about 85% of the total burden of disease in Australasia in 2010, while injuries accounted for 10%. Communicable, maternal, neonatal and nutritional disorders accounted for 5%.
- The largest contributors to the total burden were cancer (16%), musculoskeletal disorders (15%), cardiovascular diseases (14%) and mental and behavioural disorders (13%).
- Cancer contributed 33% and cardiovascular diseases 26% of the fatal burden in 2010.
- Musculoskeletal disorders contributed 26% and mental and behavioural disorders 23% of the non-fatal burden in 2010.

### **What were the biggest risk factors for Australasia?**

- Of the risk factors considered by the study, dietary risks (accounting for 11% of the total burden), high body mass index (9%) and smoking (8%) were the leading risk factors.
- While these risk factors are known to be associated with many diseases, the main conditions affected by these risk factors were cancer, cardiovascular diseases, and diabetes, urogenital, blood and endocrine diseases combined.

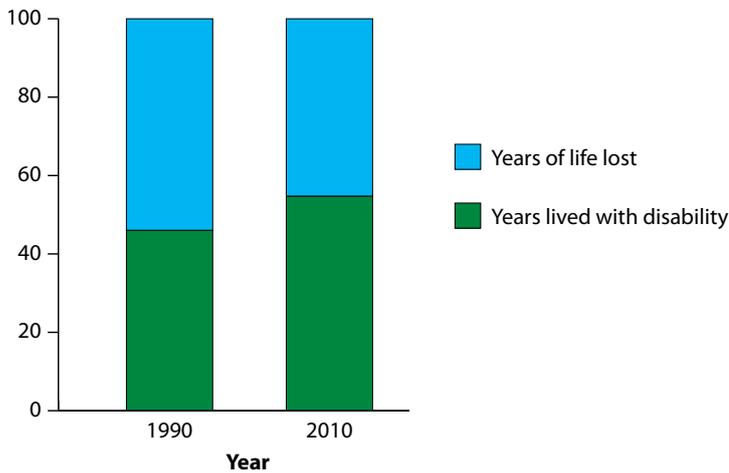


### How has this changed since 1990?

- A larger fraction of the burden is now caused by ill-health rather than premature death (Figure 4.1).
- Cancer (ranked 2 in 1990) and musculoskeletal conditions (ranked 3 in 1990) replaced cardiovascular diseases as the leading contributors to the Australasian total disease burden in 2010.
- Unintentional injuries (other than transport injuries) replaced transport injuries as the largest contributor to injuries.
- For risk factors, dietary risks and smoking were ranked 1 and 3 respectively in both 1990 and 2010. High body mass index was the second-highest risk factor in 2010, replacing high blood pressure, which was second highest in 1990.

**Figure 4.1**

**Proportion (%) of overall burden of disease**



Source: AIHW analysis of IHME 2013.

**Proportion of overall burden of disease due to premature death and health loss, Australasia, 1990 and 2010**

## How does Australia compare internationally?

Many factors may contribute to differences between countries. Comparisons between Australia, New Zealand, Canada, the United States, the United Kingdom and Ireland for 2010 showed:

- Ischemic heart disease, lung cancer and stroke were the top 3 contributors to the fatal burden in all countries, while low back pain was the top contributor to the non-fatal burden.
- As a group, dietary risks was the largest risk factor contributor to overall burden in those countries.

## What is missing from the picture?

The Global Burden of Disease Study 2010 is an important source of information for setting global health priorities. However, it does not provide estimates by population groups—in particular the Aboriginal and Torres Strait Islander population—or at a subnational level (for example, by state and territory, remoteness or socioeconomic classification). Indigenous and subnational breakdowns are key priorities for the current Australian Burden of Disease study.

The global study also included conditions and risk factors not experienced in Australia (for example, cholera), while other conditions and risk factors of policy interest to Australia were not included (for example, mesothelioma). Findings of the global study should be interpreted with this in mind.

## Where do I go for more information?

More information on the AIHW Australian Burden of Disease study is available at [www.aihw.gov.au/burden-of-disease/](http://www.aihw.gov.au/burden-of-disease/).

For more information on the 2010 global study, see [Global Burden of Disease Study 2010](#).

## References

IHME 2013. Data visualizations. Seattle: IHME. Viewed 6 November 2013, <<http://www.healthmetricsandevaluation.org/tools/data-visualizations>>.

The Lancet 2012. Global Burden of Disease Study 2010. *The Lancet* 380:2053–60.