TOPIC 2
Measurements and indicators of health status

2.1 Overview

Key knowledge

• Indicators used to measure the health status of Australians, including incidence and prevalence of health conditions, morbidity, rates of hospitalisation, burden of disease, mortality, life expectancy, core activity limitation, psychological distress and self-assessed health status
• The health status of Australia’s youth

Key skills

• Analyse the extent to which health status data reflects concepts of health and wellbeing
• Draw conclusions from health data about the health status of youth in Australia

FIGURE 2.1 The health status of Australia’s youth is generally good.

VCE Health and Human Development Study Design © VCAA; reproduced by permission.
2.2 The health status of Australia’s youth — self-assessed health status and life expectancy

2.2.1 What is health status?
So far, the concept of health and wellbeing, and the five dimensions that contribute to health and wellbeing, have been examined. As well as exploring physical, social, emotional, mental and spiritual health and wellbeing, it is useful to be able to measure the level of health and wellbeing that individuals, groups or whole populations are experiencing. Measurable aspects of health and wellbeing provide an ability to make judgements relating to the health status of individuals, groups or populations.

2.2.2 Measuring health status
Measuring health status is useful for a number of purposes. As already mentioned, it allows judgements to be made about the health and wellbeing of individuals, groups or populations. With this information,
government and non-government organisations can take action to improve health and wellbeing in areas that need it. It also allows trends to be identified in health status over time. This can provide valuable feedback on actions that have already been implemented. Such information can further guide interventions aimed at improving health and wellbeing.

There are a number of ways of measuring health status and these measures are collectively known as **health indicators**. Each health indicator provides specific information relating to the health status experienced. By examining a range of health indicators, a more complete assessment of health status can be made. Health indicators include:

- self-assessed health status
- life expectancy
- mortality
- morbidity (including incidence and prevalence of health conditions)
- burden of disease
- rates of hospitalisation
- core activity limitation
- psychological distress.

Each of these will be explored in the coming sections.

It can take some time for health statistics to become public — often around three years before data can be accurately collated and released. Some statistics are released only every two years (biannually) or less often. As a result, some statistics quoted in this book may date back to the mid 2000s, yet they represent the most recent statistics available. Generally speaking, the rates and ratios derived from statistics change slowly over time, so even older statistics are relevant to what is happening today. Further, many statistics are available only for set age groups (often 12–24). When these statistics are used, it is important to remember that they include a proportion of those in the early adulthood stage.

Australia is one of the healthiest countries in the world and Australia’s youth (most aged 12–18) are among the healthiest individuals in the country. There have been constant improvements over time in most aspects of health and wellbeing. In order to adequately assess the health and wellbeing of Australia’s youth, it is important to understand the methods used for reporting health status.

**Self-assessed health status**

Self-assessed health status is based on an individual’s own perception of their health and wellbeing. People are asked to rate their level of health and wellbeing. Responses range from excellent, very good, good, fair and poor. Young Australians generally rate their health status positively. Figure 2.3 shows the self-assessed health status of young Australians at selected ages.

**Life expectancy**

**Life expectancy** is one of the most common methods used to measure health status. It gives an indication of how long a person can expect to live if the current death rates stay the same. Unless stated otherwise, life expectancy data relate to a person born in the years provided. Table 2.1 shows life expectancy data for people of different ages in Australia.
According to the Australian Bureau of Statistics data shown in Table 2.1, the life expectancy of a child born in 2015 was 80.4 years for a male and 84.5 years for a female. Compare this to a life expectancy of 55.2 years for males and 58.8 years for females born between 1901 and 1910. This represents an increase in life expectancy of more than 25 years over the past century. The life expectancy of Australians is constantly improving while death rates are decreasing.

The life expectancy for Australia’s youth reflects the high figures experienced by all age groups in this country. According to Table 2.2, a male aged 12 could expect to live to 80.8 years and a male aged 21 could expect to live to 81 years. As life expectancy is based on averages, it increases as people get older. Some individuals will not survive infancy or childhood, and this brings the average down for life expectancy at birth. Once an individual survives these stages, the likelihood that they will live beyond the life expectancy at birth increases.

**TABLE 2.1** Life expectancy at different ages, 1901–10 and 2013–15

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>55.2</td>
<td>80.4</td>
<td>58.8</td>
<td>84.5</td>
</tr>
<tr>
<td>30</td>
<td>66.5</td>
<td>81.3</td>
<td>69.3</td>
<td>85.1</td>
</tr>
<tr>
<td>65</td>
<td>76.3</td>
<td>84.5</td>
<td>77.9</td>
<td>87.3</td>
</tr>
<tr>
<td>85</td>
<td>87.7</td>
<td>91.2</td>
<td>89.2</td>
<td>92.2</td>
</tr>
</tbody>
</table>

**TABLE 2.2** Life expectancy for Australia’s youth and early adults at different ages

<table>
<thead>
<tr>
<th>Age</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>13</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>14</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>15</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>16</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>17</td>
<td>80.8</td>
<td>84.9</td>
</tr>
<tr>
<td>18</td>
<td>80.9</td>
<td>84.9</td>
</tr>
<tr>
<td>19</td>
<td>80.9</td>
<td>85</td>
</tr>
<tr>
<td>20</td>
<td>80.9</td>
<td>85</td>
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<tr>
<td>21</td>
<td>81</td>
<td>85</td>
</tr>
<tr>
<td>22</td>
<td>81</td>
<td>85</td>
</tr>
<tr>
<td>23</td>
<td>81</td>
<td>85</td>
</tr>
<tr>
<td>24</td>
<td>81.1</td>
<td>85</td>
</tr>
<tr>
<td>25</td>
<td>81.1</td>
<td>85.1</td>
</tr>
</tbody>
</table>

*Source: Adapted from ABS, *Australian Health Survey: Updated Results*, 2011–12.*

*Source: Adapted from ABS and AIHW data, 2017.*


2.2 Activities

Test your knowledge

1. Define health status.
2. Why is it useful to be able to measure health status?
3. (a) What is meant by health indicators?
   (b) Why is it beneficial to use a range of health indicators when exploring health status?
   (c) Identify four health indicators that can be used to measure health status.
4. Explain the following health status indicators:
   • self-assessed health status
   • life expectancy.
5. What percentage of 15- to 24-year-olds assessed their health status as excellent or very good in 2011–12, according to figure 2.3?
6. Using table 2.1, explain how life expectancy changed from 1901–10 and 2013–15 for:
   (a) males at birth
   (b) females at birth.

Apply your knowledge

7. (a) Outline the proportion of 15- to 24-year-olds assessing their health status as good and fair or poor.
   (b) Brainstorm reasons that may account for youth assessing their health status as good or fair or poor.
8. (a) Using table 2.2, explain what happens to life expectancy as individuals move through youth and into the early adulthood stage of the lifespan.
   (b) Suggest reasons that account for this change.
9. Access the Life expectancy weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

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2.3 The health status of Australia’s youth — mortality

**KEY CONCEPT** Exploring mortality among Australian youth

**Mortality** refers to death, particularly at a population level. The mortality rate is therefore an indication of how many deaths occurred in a population in a given period for a specific cause/all causes. Mortality rates are usually presented per 100,000 population in a 12-month period. Some mortality rates are shown in table 2.3.
Youth has among the lowest mortality rates of all lifespan stages, second only to childhood mortality rates (see figure 2.4).

Mortality rates have also decreased significantly over time among youth (figure 2.5). In 1970, mortality rates were around 105 per 100,000 people aged 15–19 and around 35 per 100,000 people aged 10–14. These figures had decreased in 2013 to around 30 deaths per 100,000 and 10 deaths per 100,000 for those aged 15–19 and 10–14 respectively. Advances in technology, education and medical treatment were largely responsible for these decreases.

**TABLE 2.3** Mortality rates by age group and sex, per 100,000, 2013

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>Males</th>
<th>Females</th>
<th>Persons</th>
<th>Male:female Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–4</td>
<td>91.0</td>
<td>81.5</td>
<td>86.3</td>
<td>1.1</td>
</tr>
<tr>
<td>5–9</td>
<td>10.3</td>
<td>8.3</td>
<td>9.3</td>
<td>1.2</td>
</tr>
<tr>
<td>10–14</td>
<td>11.3</td>
<td>8.1</td>
<td>9.7</td>
<td>1.4</td>
</tr>
<tr>
<td>15–19</td>
<td>41.1</td>
<td>21.5</td>
<td>31.6</td>
<td>1.9</td>
</tr>
<tr>
<td>20–24</td>
<td>57.1</td>
<td>24.7</td>
<td>41.2</td>
<td>2.3</td>
</tr>
<tr>
<td>25–29</td>
<td>65.9</td>
<td>26.5</td>
<td>46.4</td>
<td>2.5</td>
</tr>
<tr>
<td>30–34</td>
<td>78.4</td>
<td>40.4</td>
<td>59.5</td>
<td>1.9</td>
</tr>
<tr>
<td>35–39</td>
<td>106.5</td>
<td>58.0</td>
<td>82.2</td>
<td>1.8</td>
</tr>
<tr>
<td>40–44</td>
<td>146.8</td>
<td>88.8</td>
<td>117.5</td>
<td>1.7</td>
</tr>
<tr>
<td>45–49</td>
<td>228.6</td>
<td>139.4</td>
<td>183.6</td>
<td>1.6</td>
</tr>
<tr>
<td>50–54</td>
<td>328.5</td>
<td>203.0</td>
<td>265.1</td>
<td>1.6</td>
</tr>
<tr>
<td>55–59</td>
<td>497.6</td>
<td>306.1</td>
<td>400.7</td>
<td>1.6</td>
</tr>
<tr>
<td>60–64</td>
<td>757.7</td>
<td>471.2</td>
<td>613.0</td>
<td>1.6</td>
</tr>
<tr>
<td>65–69</td>
<td>1245.2</td>
<td>714.7</td>
<td>977.9</td>
<td>1.7</td>
</tr>
<tr>
<td>70–74</td>
<td>1999.8</td>
<td>1201.9</td>
<td>1593.1</td>
<td>1.7</td>
</tr>
<tr>
<td>75–79</td>
<td>3431.3</td>
<td>2180.8</td>
<td>2768.9</td>
<td>1.6</td>
</tr>
<tr>
<td>80–84</td>
<td>6321.7</td>
<td>4321.6</td>
<td>5191.3</td>
<td>1.2</td>
</tr>
<tr>
<td>85+</td>
<td>14411.1</td>
<td>12360.5</td>
<td>13088.3</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*Source:* Adapted from ABS data.

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A mortality rate of 21.5 per 100,000 means that, on average, 21.5 females in every 100,000 died in 2013 in this age group. According to the ABS, there were 742,013 females in this age group in 2011, which equals 160 deaths.

The male:female ratio means that in 2013 an average of 1.9 males died in this age group for every female that died in this age group.

**FIGURE 2.4** Death rates for infants, children, youths and early adults, 2013

*Source:* Adapted from AIHW data.
Death rates are low during youth because they have survived childhood, where factors associated with childbirth and genetic abnormalities are the leading causes of death, and lifestyle factors such as food intake, alcohol consumption and physical activity levels have generally not had time to have an impact on the body to the point of causing premature death.

The leading contributors to death among youth are shown in figure 2.6.

**FIGURE 2.6** Mortality rates due to selected causes for those aged 10–19 according to sex, 2013

Deaths from accidental causes such as car accidents and drowning contribute significantly to mortality rates during the youth stage. Such causes are classified as ‘injuries’. Specifically, injuries include road accidents, intentional self-harm, poisoning, drowning and violence.
Although the mortality rate associated with cancer is relatively low among youth compared to other lifespan stages, it is still the second leading cause of mortality among youth. Cancer is characterised by the uncontrolled growth of abnormal cells. These cells can interfere with healthy cells and prevent them from carrying out their normal functions.

Among youth, the most common cancers include:
- melanoma — cancer of the melanocytes, a type of skin cell
- Hodgkin lymphoma — a form of blood cancer
- testicular cancer — cancer of the testicles, therefore affecting only males.

Diseases of the nervous system were the third most common cause of death among youth. The nervous system is made up of the brain, spinal cord and nerves. Diseases affecting these structures in youth include:
- cerebral palsy — a condition caused by damage to the brain that occurs either during pregnancy or shortly after birth
- epilepsy — a brain condition characterised by recurrent seizures
- muscular dystrophy — a range of related conditions that cause progressive weakness and loss of muscle mass.

Cardiovascular disease refers to diseases of the heart and blood vessels. This cause of death is not common in young people, and when cardiovascular-related deaths do occur in youth they usually arise from heart defects and genetic conditions.

2.3.1 Years of life lost (YLL)

Years of life lost (YLL) due to premature death is another way of measuring and comparing mortality. If a person dies from a given condition 30 years before the predicted life expectancy for their age, then they have contributed 30 YLL to that particular cause of death. For example, if a 14-year-old female dies in a car crash, and life expectancy for females that age is 84, then 70 years have been added to the YLL for injuries.

Figure 2.7 shows the total YLL and rate of YLL per 1000 people for both males and females in different age groups in 2011. Compared to other age groups, 10- to 19-year-olds experience relatively few YLL.

Source: Adapted from AIHW, Australian Burden of Disease Study, 2016.
The YLL that were caused by a range of conditions among young Australians are shown in figure 2.8. For Australia’s youth, road traffic accidents are the leading specific cause of years of life lost, and injury-related deaths account for the top three specific causes of YLL. Cancer is the leading non-injury related cause of death, followed by nervous system and sense disorders that include epilepsy and muscular dystrophy. Note that ‘other causes’ is not considered to be a leading cause of death because it encompasses a range of conditions, each of which on its own contributes very few YLL.

![Figure 2.8: Years of life lost (YLL) for selected conditions by sex and age group](image)

**Source:** Adapted from AIHW data.

### 2.3 Activities

**Test your knowledge**

1. What is mortality?
2. Examine table 2.3 and answer the following questions:
   a. Which age group has the greatest male: female ratio for mortality?
   b. What does this number (ratio) mean?
   c. Discuss reasons that may account for the ratio identified in part (a).
3. (a) According to figure 2.4, how do death rates change for 10- to 14-year-olds compared with 15- to 19-year-olds?
   b. Suggest reasons for this change.
4. (a) Describe the trend in death rates as shown in figure 2.5.
   b. What factors may have led to this trend?
5. (a) What are the top three broad causes of death for males and females according to figure 2.6?
   b. For each broad cause of death identified in part (a), list the specific diseases or conditions that are most likely to have caused these deaths.
6. (a) Explain how mortality rate due to injuries changes for those aged 15–19 compared to those aged 10–14 as shown in figure 2.6.
   b. Discuss possible reasons for these changes.
7. (a) State what the acronym ‘YLL’ stands for and explain what it means.
   b. Outline how YLL are calculated.
8. (a) Which sex contributes more YLL according to figure 2.8?
   b. Suggest reasons for this.
Apply your knowledge
9. Discuss why death rates might be a more useful statistic than the total number of deaths.
10. Examine table 2.3 and complete the following:
   (a) Graph the male:female mortality ratio across the lifespan.
   (b) Using data, describe the pattern with regard to male: female mortality rates across the lifespan.
11. Explain why mortality data is useful in addition to life expectancy data in analysing health status.
12. Redraw figure 2.8 showing the three leading causes of YLL for youth. In your graph, use one colour for males aged 10–19 and a different colour for females aged 10–19 to indicate the overall proportion contributed by both males and females.
13. Access the Injury weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

2.4 The health status of Australia’s youth — morbidity and burden of disease

**KEY CONCEPT** Exploring morbidity and burden of disease among Australian youth

### 2.4.1 Morbidity

Not all conditions end in death, so it is useful to examine the effect that non-fatal conditions have on a population. This is where morbidity data is useful. **Morbidity** refers to ill-health — including disease, injury and disability — in an individual, and the level of ill-health in a population. The morbidity rate therefore refers to the rate of ill-health in a population in a given period. There are two ways of considering morbidity:

- the number or rate of people reporting a condition (often represented as a percentage of a population, or the incidence and prevalence rates)
- the **years lost due to disability (YLD)**, where one YLD is equal to one ‘healthy’ year of life lost due to time lived with illness, injury or disability.

**FIGURE 2.9** Many conditions do not end in death but still affect the health status of youth.
By using two methods, it is possible to examine which conditions are the most common and which conditions have the biggest impact on health and wellbeing.

### 2.4.2 Incidence and prevalence of health conditions

Incidence and prevalence are two measures used to present morbidity data. **Incidence** refers to the number of new cases of a condition in a given period (usually 12 months) and **prevalence** refers to the total number of cases of a condition at a given time. Both incidence and prevalence data can be shown as the total number or the rate (often per 1000 or per 100 000 population).

Incidence data is useful for identifying which conditions are increasing in diagnosis and which ones are decreasing. This can assist the government and health organisations in allocating resources and taking action to improve the health status of Australia’s youth.

Table 2.4 shows the estimated incidence rates (per 1000) for selected age groups and conditions in 2015.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Males 10–14</th>
<th>Males 15–19</th>
<th>Females 10–14</th>
<th>Females 15–19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>16.6</td>
<td>10.0</td>
<td>27.6</td>
<td>19.9</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>0.8</td>
<td>32.5</td>
<td>4.4</td>
<td>70.1</td>
</tr>
<tr>
<td>Migraine</td>
<td>22.2</td>
<td>14.5</td>
<td>38.9</td>
<td>42.6</td>
</tr>
<tr>
<td>Anxiety and depression</td>
<td>25.9</td>
<td>58.5</td>
<td>36.0</td>
<td>94.9</td>
</tr>
<tr>
<td>Eating disorders</td>
<td>1.9</td>
<td>3.2</td>
<td>1.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Back and neck pain</td>
<td>19.6</td>
<td>37.8</td>
<td>24.2</td>
<td>48.4</td>
</tr>
<tr>
<td>Sight disorders</td>
<td>11.5</td>
<td>13.3</td>
<td>13.0</td>
<td>17.1</td>
</tr>
<tr>
<td>Dental caries</td>
<td>157.7</td>
<td>226.1</td>
<td>178.3</td>
<td>257.3</td>
</tr>
</tbody>
</table>


As can be seen from table 2.4, the incidence rate for asthma was 16.6 for every 1000 males in the 10–14 age bracket. If the size of the population in this age group is known, the total number of cases can be calculated (see box below).

**CALCULATING THE TOTAL NUMBER OF NEW CASES OF A DISEASE**

In 2015, there were approximately 725 300 males in this age group. To calculate the total number of new cases, multiply the rate per 1000 by 725.3 (as there are 725.3 groups of 1000 in 725 300) to get the total number of new cases in 2015:

\[725.3 \times 16.6 = 12040\]

So in 2015 there were approximately 12 040 new cases of asthma among males in the 10–14 years age group.
The prevalence, or total cases, of selected conditions is shown in table 2.5. Statistics on prevalence can be useful for comparing the number of individuals suffering from certain conditions during a specified period. As with incidence, information about prevalence can assist with allocating resources and planning for the future. It also ensures that trends can be identified over time so that the health system can adapt to cater for the changing needs of Australia’s youth.

### TABLE 2.5 Prevalence (total number) of selected conditions, 2015

<table>
<thead>
<tr>
<th>Condition</th>
<th>Males 10–14</th>
<th>Males 15–19</th>
<th>Females 10–14</th>
<th>Females 15–19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>107,065</td>
<td>90,128</td>
<td>100,725</td>
<td>116,569</td>
</tr>
<tr>
<td>Anxiety and depression</td>
<td>12,159</td>
<td>33,429</td>
<td>16,092</td>
<td>46,591</td>
</tr>
<tr>
<td>Migraine</td>
<td>90,303</td>
<td>102,780</td>
<td>101,677</td>
<td>171,367</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>1,645</td>
<td>11,494</td>
<td>907</td>
<td>12,238</td>
</tr>
<tr>
<td>Eating disorders</td>
<td>294</td>
<td>818</td>
<td>1,129</td>
<td>5,467</td>
</tr>
<tr>
<td>Back and neck pain</td>
<td>16,394</td>
<td>36,387</td>
<td>19,074</td>
<td>44,888</td>
</tr>
<tr>
<td>Sight disorders</td>
<td>35,268</td>
<td>44,403</td>
<td>36,129</td>
<td>47,073</td>
</tr>
<tr>
<td>Dental caries</td>
<td>76,913</td>
<td>100,245</td>
<td>39,291</td>
<td>111,983</td>
</tr>
</tbody>
</table>


Data in table 2.5 are presented as the total number of people in each age group experiencing each condition in Australia, but the rate of prevalence for each condition can be calculated if the approximate size of the population is known (see box below).

**CALCULATING THE RATE OF TOTAL CASES OF A DISEASE**

First, divide the population number by 1000 (or 100,000 if you want to display the rate per 100,000).

For example, in 2015 there were approximately 689,200 females in the 10–14 age group:

\[
\frac{689,200}{1000} = 689.2
\]

In other words, there were 689.2 groups of 1000.

To calculate the rate, divide the number of individuals suffering from the condition by 689.2. For asthma (table 2.5), there were 100,725 females in this age group suffering from asthma:

\[
\frac{100,725}{689.2} = 146.1
\]

In other words, there were 146.1 groups of 1000 females in this age group.

Table 2.6 shows prevalence data for the same conditions as table 2.5, expressed per 1000 population.

### TABLE 2.6 Prevalence (per 1000) of selected conditions, 2015

<table>
<thead>
<tr>
<th>Condition</th>
<th>Males 10–14</th>
<th>Males 15–19</th>
<th>Females 10–14</th>
<th>Females 15–19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>147.6</td>
<td>107.1</td>
<td>146.1</td>
<td>147.6</td>
</tr>
<tr>
<td>Anxiety and depression</td>
<td>16.8</td>
<td>39.7</td>
<td>23.3</td>
<td>61.7</td>
</tr>
<tr>
<td>Migraine</td>
<td>124.5</td>
<td>122.1</td>
<td>147.5</td>
<td>225.3</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>2.3</td>
<td>13.7</td>
<td>1.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Eating disorders</td>
<td>0.4</td>
<td>1.0</td>
<td>1.6</td>
<td>6.9</td>
</tr>
<tr>
<td>Back and neck pain</td>
<td>22.6</td>
<td>43.2</td>
<td>27.7</td>
<td>57.0</td>
</tr>
<tr>
<td>Sight disorders</td>
<td>48.6</td>
<td>52.7</td>
<td>52.4</td>
<td>59.8</td>
</tr>
<tr>
<td>Dental caries</td>
<td>106.0</td>
<td>119.1</td>
<td>129.5</td>
<td>142.1</td>
</tr>
</tbody>
</table>

2.4.3 Years lost due to disability (YLD)

Years lost due to disability (YLD) is a measure of the impact of morbidity on a group or population. YLL and YLD are equal in value, in that one YLL and one YLD are each equal to one healthy year of life lost. The difference is that YLL is caused by premature death and YLD is caused by losing healthy years of life because of living with illness, disease or disability.

It would be difficult to compare the effect of asthma on an individual with the effect of losing a leg in a car crash. They are very different conditions and would impact on an individual in different ways. In order to address this issue, the World Health Organization (WHO) has given the most common conditions disability weight, which is an indication of the severity of the condition and how much it interferes with normal life. The disability weights are incorporated into the YLD formula, so all YLD are relative and different conditions can be compared fairly. For example, even though headaches are more common among youth than asthma, they are considered to be less severe and this contributes to asthma contributing more YLD. As asthma contributes more YLD than headaches, it is considered to have a greater impact and be a greater concern.

Figure 2.10 shows the number and rate of YLD from age 0 to 39. Males experience a greater number of YLD in both the 10–14 and 15–19 age groups and a higher rate of YLD in the 10–14 age group. Females experience a slightly greater rate of YLD in the 15–19 age group compared to males and the increase in mental disorders among females in this age group is largely responsible for this change. Figures 2.11 and 2.12 on the next page show the breakdown of YLD for 10- to 14-year-olds and 15- to 19-year-olds according to cause in 2011.

**FIGURE 2.10** YLD number and rate for males and females by age group, 2011

![YLD number and rate for males and females by age group, 2011](image)

Mental and substance use disorders common among youth include depression, anxiety and eating disorders. Mental and substance use disorders are the largest contributor to YLD among youth and are therefore deemed to have the greatest non-fatal impact on health status. Mental and substance use disorders are common among youth and can be quite severe, which contributes to the high rate of YLD attributed to them.

Asthma and bronchitis account for the majority of YLD due to respiratory conditions among youth. Although more youth experience asthma than mental and substance use disorders, asthma is not considered to be as severe as mental and substance use disorders and therefore contributes fewer YLD.

Skin conditions are the third leading contributor to YLD among youth and include acne, eczema, psoriasis and other forms of dermatitis.

2.4.4 Burden of disease

**Burden of disease** is a concept that combines mortality data with morbidity data so that conditions that contribute differently to death and illness can be compared. For example, cancer causes a lot of death and
illness while a chronic, or long-term, condition such as asthma causes a lot of illness but much less death. In the past, it was hard to compare these two conditions and decide where valuable funding should go. Burden of disease data was created to help overcome this problem.

Burden of disease is measured in disability adjusted life years (or DALY, pronounced ‘dally’), where 1 DALY equals one year of healthy life lost due to premature death and time lived with illness, disease or injury. Using DALY, it is possible to compare the impact of different conditions equally — those that cause death, those that cause disability and illness, and those that cause both (table 2.7). A person who has lived a healthy life but dies suddenly 30 years earlier than the current life expectancy of their age has contributed 30 DALY. In contrast, a person who is still alive but has spent their last 10 years at only ‘half health’ has contributed five DALY.

<table>
<thead>
<tr>
<th>Disease group</th>
<th>10–14 years</th>
<th>Proportion of total DALY (%)</th>
<th>15–19 years</th>
<th>Proportion of total DALY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental &amp; substance use disorders</td>
<td>24,808</td>
<td>37.1</td>
<td>42,603</td>
<td>34.6</td>
</tr>
<tr>
<td>Injuries</td>
<td>5,871</td>
<td>8.8</td>
<td>24,707</td>
<td>20.1</td>
</tr>
<tr>
<td>Respiratory diseases (including asthma)</td>
<td>11,339</td>
<td>17.0</td>
<td>12,232</td>
<td>9.9</td>
</tr>
<tr>
<td>Skin disorders</td>
<td>6,624</td>
<td>9.9</td>
<td>10,195</td>
<td>8.3</td>
</tr>
<tr>
<td>Musculoskeletal conditions</td>
<td>3,630</td>
<td>5.4</td>
<td>6,829</td>
<td>5.6</td>
</tr>
<tr>
<td>Neurological conditions</td>
<td>3,867</td>
<td>5.1</td>
<td>5,810</td>
<td>4.7</td>
</tr>
<tr>
<td>Oral disorders</td>
<td>2,387</td>
<td>3.6</td>
<td>2,976</td>
<td>2.4</td>
</tr>
<tr>
<td>Infant &amp; congenital conditions</td>
<td>2,128</td>
<td>3.2</td>
<td>3,331</td>
<td>2.7</td>
</tr>
<tr>
<td>Cancer &amp; other neoplasms</td>
<td>1,833</td>
<td>2.7</td>
<td>2,844</td>
<td>2.3</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>1,051</td>
<td>1.6</td>
<td>1,649</td>
<td>1.3</td>
</tr>
<tr>
<td>All other conditions</td>
<td>3,772</td>
<td>5.6</td>
<td>9,818</td>
<td>8.1</td>
</tr>
</tbody>
</table>

Source: Adapted from AIHW, Australian Burden of Disease Study 2011, 2015.

DALY are calculated by adding YLL (years of life lost) and YLD (years lost due to disability), as shown in figure 2.13.

Australia’s youth experience a significantly greater number of YLD than YLL. According to data from the Australian Institute of Health and Welfare, in 2011 those aged between 10 and 19 had 147,300 YLD compared to 42,525 YLL, giving a total of 189,825 DALY. The top causes of DALY (with a breakdown of YLL and YLD) for this age group is shown in figure 2.14.
2.4 Activities

Test your knowledge

1. (a) What is meant by the term morbidity?
   (b) Explain why it is useful to examine morbidity data in addition to mortality data.
2. Outline the difference between incidence and prevalence.
3. State what the acronym ‘YLD’ stands for and explain what it means.
4. (a) Describe the change in rate of YLD for males and females according to figure 2.10.
   (b) Approximately, how many YLD were contributed by males and females aged 10–14 and 15–19?
5. What are the top three causes of YLD for young Australians according to figure 2.11 and 2.12?
6. (a) What is meant by ‘burden of disease’?
   (b) How is it measured?
7. What is the benefit of using DALY instead of morbidity or mortality data?

Apply your knowledge

8. If the incidence for a condition drops to 0 per 100,000 population, does this also mean the prevalence will be 0? Explain.
9. Explain how asthma can have the highest prevalence among youth, but does not have the highest incidence.
10. (a) Which three conditions led to the most burden of disease as shown in table 2.7?
    (b) For each of the three conditions, explain whether you think most DALY would be attributable to mortality or morbidity.
11. Explain how anxiety and depression can be the leading burden of disease (DALY) for young Australians when these conditions cause relatively few deaths.
12. Why might it be useful to look at the total number of people suffering from a condition as well as YLD contributed by each condition?
13. Access the Burden of disease weblink and worksheet in the Resources tab in your eBookPLUS then complete the worksheet.

**eBookplus RESOURCES**

- Explore more with this weblink: Burden of disease
- Complete this digital doc: Burden of disease worksheet
  Searchlight ID: doc-22657

**Source:** Adapted from AIHW, Australian Burden of Disease Study, 2016.
2.5 The health status of Australia’s youth — hospitalisation, core activity limitation and psychological distress

**KEY CONCEPT** Exploring hospitalisation, core activity limitation and psychological distress among Australian youth

2.5.1 Rate of hospitalisation
Exploring the rate of hospitalisation among youth provides an indication of levels of ill-health that require medical treatment. Hospitalisation can occur as the result of requiring care for **chronic conditions**, where the patient is admitted to receive treatment, and emergency care that involves unforeseen events that end up requiring medical care, such as car accidents and sporting accidents. Overall, the youth stage of the lifespan is characterised by relatively low levels of hospitalisations compared to other lifespan stages (figure 2.16).

**FIGURE 2.16** Total hospital separations by age group and sex, 2014–15.

In 2014–15, there were a total of 360,521 hospital separations for those aged 10–19, with the majority occurring for those aged 15–19 (240,640 compared to 119,881 for those aged 10–14).

Males aged 10–14 experienced a higher rate of hospitalisation than females in the same age group. Females aged 15–19 experienced a significantly higher rate of hospitalisation than males in the same age group, largely as the result of:

- pregnancy and childbirth — there are over 20,000 hospitalisations across Australia each year due to pregnancy in the 15–19 years age group.
- higher rates of mental and behavioural disorders, including eating disorders, which are significantly more common among females.

Overall, females in the 10–19 years age group were more likely to be hospitalised than males (194,558 and 165,888 separations respectively). The overall rate (per 1000) for hospitalisations are shown in figure 2.17.

The five leading causes of hospitalisation for those aged 10–19 are shown in figure 2.18.

Injury and poisoning are the leading cause of hospitalisation in the youth stage of the lifespan. Youth is a time of increasing independence and young people often have greater access to a range of settings that may be unsupervised, such as school, sporting grounds, streets and neighbourhoods. Youth is also characterised by an increase in risk-taking behaviours, particularly among boys. The peer group becomes increasingly important during this stage and risk-taking behaviour may be motivated by friends. The part of the brain that controls decision making is still developing during the youth stage. Valuing short term gain over long term consequences can lead to risky behaviours. As young people age, they often have more exposure to motorised transport, employment, alcohol and drugs which also contribute to this trend. The most common forms of injury requiring hospitalisation among youth are fractures and superficial wounds such as cuts and lacerations.

Diseases of the digestive system were the second most common cause of hospitalisation for 10- to 19-year-olds. The most common examples of these conditions include appendicitis (which requires the removal of the appendix) and dental surgery (including the extraction of wisdom teeth). Wisdom teeth are
more likely to erupt during the later stage of youth.

Respiratory diseases were the third most common reason for hospitalisation and include conditions such as asthma and bronchitis.

Mental and behavioural problems were the fourth most common cause of hospitalisation for youth and include depression, anxiety, eating disorders and drug-induced mental disorders.

Diseases of the musculoskeletal system and connective tissues were the fifth most common cause of hospitalisation among youth and include muscle, joint and bone problems such as back and disc conditions, joint reconstruction surgery and treatment for arthritis.

2.5.2 Core activity limitation

Core activities relate to three main areas of life and can be seen in table 2.8. If an individual has difficulty in any of the three core activities, they may have a core activity limitation. Core activity limitations can occur as the result of injury, developmental problems and chronic illness.

<table>
<thead>
<tr>
<th>Core activity</th>
<th>Examples relating to the core activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-care</td>
<td>• Bathing/showering&lt;br&gt;• Dressing/undressing&lt;br&gt;• Eating/feeding&lt;br&gt;• Going to the toilet&lt;br&gt;• Bladder/bowel control</td>
</tr>
<tr>
<td>Mobility</td>
<td>• Moving around away from home&lt;br&gt;• Moving around at home&lt;br&gt;• Getting in or out of bed or chair</td>
</tr>
<tr>
<td>Communication in own language</td>
<td>• Understanding/being understood by strangers, friends or family, including use of sign language/lip reading</td>
</tr>
</tbody>
</table>

Surveys relating to core activities ask respondents whether they have difficulty or require assistance from another person or an aid (such as a wheelchair) to carry out the three core activities. Core activity limitations are classified based on whether, and how often, a person needs help, has difficulty, or uses aids or equipment with any core activities. A person’s overall level of core activity limitation is determined by their highest level of limitation in any of the three core activities.

According to the Australian Institute of Health and Welfare there are four main levels of core activity limitation:

- **Profound** — those who answered yes to always needing help are classified as having a ‘profound core activity limitation’
- **Severe** — those who don’t always need help, but may require help at times, are classified as having a ‘severe core activity limitation’
- **Moderate** — those who have difficulty with the tasks are classified as having a ‘moderate core activity limitation’
- **Mild** — those who simply require aids to undertake the task are classified as having a ‘mild core activity limitation’.

**FIGURE 2.19** Dental surgery is a leading cause of hospitalisation among youth.
The proportion and level of core activity limitations among young people are shown in figure 2.21. Note that the data available relate to those aged 5–24 and therefore include people in the childhood and adulthood stages of the lifespan. Although other lifespan stages are included, these data provide a reflection of the level of core activity limitation experienced by youth in Australia.

![Figure 2.20](image)

If an individual requires assistance from people or equipment, they may have a core activity limitation.

![Figure 2.21](chart)

Proportion of males and females with a core activity limitation for those aged 5–24, by type of limitation, 2014–15.

<table>
<thead>
<tr>
<th>Type of Limitation</th>
<th>5–14 Males</th>
<th>5–14 Females</th>
<th>15–24 Males</th>
<th>15–24 Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profound</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.6%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Severe</td>
<td>2.0%</td>
<td>1.5%</td>
<td>3.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Moderate</td>
<td>4.0%</td>
<td>3.5%</td>
<td>5.0%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Mild</td>
<td>6.0%</td>
<td>5.5%</td>
<td>7.0%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Source: Adapted from ABS, 4430.0 Disability, Ageing and Carers, Australia: Summary of Findings, 2015.

Males experience higher rates of core activity limitation than females in both age groups. Males in the 5–14 age group experience the overall highest rate of core activity limitations and the highest level of profound limitation.

### 2.5.3 Psychological distress

Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual’s level of functioning. Measuring psychological distress can provide information about the level of mental and emotional health and wellbeing experienced.

The proportion of individuals with very high levels of psychological distress can be measured using the Kessler Psychological Distress Scale (K10). The K10 is a scale of psychological distress based on the answers to ten questions about negative emotional and mental states in the four weeks prior to the interview:

1. During the last 30 days, about how often did you feel tired out for no good reason?
2. During the last 30 days, about how often did you feel nervous?
3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?
4. During the last 30 days, about how often did you feel hopeless?
5. During the last 30 days, about how often did you feel restless or fidgety?
6. During the last 30 days, about how often did you feel so restless you could not sit still?
7. During the last 30 days, about how often did you feel depressed?

![Figure 2.22](image)

Psychological distress reflects mental and emotional health and wellbeing.
8. During the last 30 days, about how often did you feel that everything was an effort?
9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?
10. During the last 30 days, about how often did you feel worthless?

The overall score is calculated by adding up the scores for each question which results in a score from 0 (the lowest possible score) to 40 (the highest possible score). Respondents can answer:
1. None of the time (0 point)
2. A little of the time (1 point)
3. Some of the time (2 points)
4. Most of the time (3 points)
5. All of the time (4 points).

For the data provided in this section, the overall score was used to classify the level of psychological distress according to the values shown in table 2.9.

Note that the Kessler Psychological Distress Scale is not a diagnosis, but an indication of the level of psychological distress experienced. While high levels of distress are often associated with mental illness, it is not uncommon for some people to experience psychological distress, but not meet criteria for a mental disorder. A diagnosis of a mental disorder can only be made by a medical doctor.

In 2013–14, one in five (19.9 per cent) youth aged 11–17 years had very high or high levels of psychological distress, at 6.6 per cent and 13.3 per cent respectively (figure 2.23).

The proportion of those experiencing very high or high levels of psychological distress was higher for females aged 11–15 and 16–17 than males of the same age (9.5 per cent and 16.4 per cent compared with 4 per cent and 10.4 per cent respectively). A higher proportion of 16- to 17-year-olds had very high and high levels of psychological distress compared to those aged 11–15 (11 per cent and 16.2 per cent of 16- to 17-year-olds compared with 4.8 per cent and 12.2 per cent of 11- to 15-year-olds), shown in table 2.10.

### TABLE 2.9 The classifications of psychological distress

<table>
<thead>
<tr>
<th>K10 total score levels</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0–5</td>
</tr>
<tr>
<td>Moderate</td>
<td>6–11</td>
</tr>
<tr>
<td>High</td>
<td>12–19</td>
</tr>
<tr>
<td>Very high</td>
<td>20–40</td>
</tr>
</tbody>
</table>

2.5 Activities

Test your knowledge

1. Explain what is meant by:
   (a) hospital separations
   (b) chronic conditions
   (c) core activity
   (d) core activity limitation
   (e) psychological distress.

2. Outline the different classifications of core activity limitation.

3. According to figure 2.21, approximately what proportion of the population experienced a core activity limitation in each of the following groups?
   (a) Males aged 5–14
   (b) Males aged 15–24
   (c) Females aged 5–14
   (d) Females aged 15–24

4. Briefly explain how psychological distress is measured.

Apply your knowledge

5. (a) Outline the change in the total number of hospitalisations between the ages of 0 and 39 as shown in figure 2.16.
   (b) Suggest possible reasons for the changes outlined in part a.

6. (a) Outline the difference in the overall hospitalisation rate for males and females aged 10–14 and 15–19.
   (b) Suggest possible reasons for the differences outlined in part a.

7. (a) Outline one similarity and one difference between males and females as shown in figure 2.17.
   (b) Suggest possible reasons for the similarity and difference outlined in part a.

8. Which age groups (11–15 or 16–17) were most likely to experience high or very high psychological distress?

9. (a) What proportion of the age group identified in part a experienced high or very high psychological distress for the following groups?
    (i) Males
    (ii) Females
    (iii) Persons
   (b) In pairs, brainstorm reasons why youth may experience psychological distress.

10. Using data to support your response, write a paragraph discussing the health status of Australian youth.
2.6 Topic 2 review

2.6.1 Key skills

**KEY SKILL** Analyse the extent to which health status data reflect concepts of health and wellbeing

For this key skill, a sound understanding of the concepts of health and wellbeing is essential, including knowledge of the five dimensions and examples that relate to each. Health status data can relate to any of the indicators discussed in this topic. To varying degrees, health indicators reflect various aspects of health and wellbeing. For this key skill, indicators and related data can be analysed to explain the extent that it relates to health and wellbeing. For example, life expectancy data provides an indication of how long an individual can expect to live, if mortality or death rates do not change. This reflects one aspect of the physical dimension of health and wellbeing, as it relates to the length of time the average individual can expect to live, but does not provide information relating to other aspects of physical health and wellbeing or the quality of life experienced in the other four dimensions.

The following steps can be taken to ensure an appropriate analysis of the extent to which health status data reflect concepts of health and wellbeing:

1. determine which health status indicator/s are evident in the data
2. consider which concepts of health and wellbeing are reflected by the indicator and associated data
3. identify the dimension/s of health and wellbeing that are reflected by the health indicator evident in table/graph and justify your choice
4. identify the dimension/s of health and wellbeing that are not reflected by the health indicator evident in table/graph.

In the following example, rates of low levels of psychological distress are analysed in relation to the extent that they reflect the concepts of health and wellbeing.

Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual’s level of functioning. Psychological distress can be measured using the Kessler Psychological Distress Scale which is

**FIGURE 2.24** Proportion of 11- to 15-year-olds and 16- to 17-year-olds classified as experiencing low levels of psychological distress, according to sex

![Bar chart showing proportion of low levels of psychological distress by sex and age group.]

based on ten questions that relate to various feelings and emotions and reflect aspects of emotional and mental health and wellbeing. The questions ask about feeling depressed which is an aspect of mental health and wellbeing. Although most people feel sad from time to time, if these feelings are experienced most, or all of the time, it can indicate that emotional health and wellbeing is not optimal.  

Although psychological distress data provides an indication of emotional and mental health and wellbeing, it does not reflect every aspect of these dimensions. It also does not provide any specific reflection on physical, social and spiritual health and wellbeing.  

The graph shows that males have higher rates of low levels of psychological distress than females for both age groups which may indicate a higher level of emotional and mental health and wellbeing for the areas addressed in the Kessler Psychological Distress Scale.

Practise the key skill

1. Table 2.11 shows the proportion of 15- to 17-year-olds who assessed their health status as fair or poor. Using data from the table, discuss the extent to which self-assessed health status reflects the concept of health and wellbeing.

2. Discuss the extent to which rates of hospitalisation reflect the concept of health and wellbeing.

---

**Table 2.11** Proportion of 15- to 17-year-olds who assessed their health as fair or poor, 2011–12

<table>
<thead>
<tr>
<th></th>
<th>Fair or poor self-assessed health status (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>4.9</td>
</tr>
<tr>
<td>Females</td>
<td>8.3</td>
</tr>
</tbody>
</table>


---

**KEY SKILL** Draw conclusions from health data about the health status of youth in Australia

This key skill relates to the interpretation and analysis of data. Data concerning health status are presented using a range of different measurements and an understanding of the measures commonly used will assist in developing this skill. Measures used to present data relating to health status include:

- self-assessed health status
- life expectancy
- mortality
- morbidity (including incidence and prevalence of health conditions)
- burden of disease
- rates of hospitalisation
- core activity limitation
- psychological distress.

To become proficient at data analysis, it is necessary to be able to interpret data available in the form of graphs, tables and charts. A range of activities in this topic provides the opportunity to practise this skill. The following steps offer a systematic approach to interpreting graphs and tables:

1. Read the title of the graph or table — the title usually gives an indication about what information is presented in the graph. It may be located at the top of the graph or next to the figure number.
2. Read the horizontal and vertical axes (for a bar graph) and look at the units (e.g. is it percentage, year, number, rate, proportion, $, etc.).
3. Look at the key if there is one — this helps identify various elements of the data.
4. Read any notes that relate to the data — there may be additional written information at the bottom of the graph explaining various elements of the graph. An element of the data that may not make sense may become clear after reading these notes.

5. Look for trends, similarities and differences between the data. This will enable a better understanding of the data that the graph is actually presenting.

Figure 2.25 shows the injury death rate over time for males and females aged 15–19.

A response to the task ‘Draw two conclusions relating to injury death rates according to figure 2.25’ might include the following points.

• Males experienced poorer health status than females relating to injury death rates. According to the data, males consistently had higher death rates due to injuries between 1980 and 2013. In 2013, the rate for females was around 15 per 100 000 and for males at the same time was around 30 per 100 000.5

• The death rate for males decreased more than the death rate for females due to injuries between 1980 and 2013.6 The male death rate decreased by around 80 per 100 000 (approximately 110 per 100 000 in 1980 down to 30 per 100 000 in 2013). The death rate for females decreased by around 15 per 100 000 (down from around 30 per 100 000 in 1980 to around 15 per 100 000 in 2013).7

Source: Adapted from AIHW, GRIM Books, 2017.

5 A conclusion must be drawn to ensure the questions is answered.

6 Use information from the graph, such as dates, to substantiate your answer.

7 Using figures from the graph shows an ability to interpret the data and draw conclusions from it.

Practise the key skill

3. Using data from figure 2.7 (in subtopic 2.3), draw conclusions relating to health status for 10- to 14- year-olds and 15- to 19-year-olds compared with other age groups.

4. Using data from figure 2.10 (in subtopic 2.4), draw conclusions relating to health status for 10- to 14- year-olds and 15-to 19-year-olds compared with other age groups.
2.6.2 Topic summary

- Health status is an individual’s or a population’s overall health (and wellbeing), taking into account various aspects such as life expectancy, amount of disability and levels of disease risk factors (AIHW, 2008).
- Australia’s youth generally experience excellent health status.
- Self-assessed health status, life expectancy, mortality, morbidity (including incidence and prevalence of health conditions), burden of disease, rates of hospitalisation, core activity limitation and psychological distress are all used to assess health status.
- Self-assessed health status is based on an individual’s own perception of their health and wellbeing. Most youth in Australia assess their health status as excellent or very good.
- Life expectancy is an indication of how long a person can expect to live; it is the number of years of life remaining to a person at a particular age if death rates do not change (AIHW, 2008).
- For a male born in 2015, the life expectancy was 80.4 years and for a female it was 84.5 years.
- Life expectancy and death rates are continually improving for Australia’s youth.
- Mortality refers to death, particularly at a population level. The mortality rates for Australia’s youth are among the lowest when compared to other lifespan stages.
- The leading cause of death and YLL among youth is injury and poisoning, and males are more likely to experience mortality during the youth stage than females.
- Morbidity can be measured using YLD, incidence and prevalence.
- Mental and substance use disorders, respiratory disease and skin conditions are the leading contributors to YLD among youth in Australia.
- DALY are used to measure burden of disease and are calculated by adding YLL and YLD.
- Mental and substance use disorders contribute most to the overall burden of disease for youth.
- Hospitalisation rates of youth provide an indication of levels of ill-health that require medical treatment.
- Youth experience low levels of hospitalisation compared to other lifespan stages.
- The leading causes are injury and poisoning; diseases of the digestive system and diseases of the respiratory systems.
- A core activity limitation exists when an individual sometimes or always requires assistance in one or more of three areas of life: self-care, mobility and communication.
- Over 4 per cent of youth experience a core activity limitation.
- Psychological distress relates to unpleasant feelings and emotions that have an impact on an individual’s level of functioning.
- Females and older youth are more likely to experience psychological distress.
2.6.3 Exam preparation

Question 1

Figure 2.26 shows the rate of DALY (per 1000 people) from conditions causing death for those aged 10–14 and 15–19 in 2010. DALY is a measure of health status.

(a) Identify what DALY stands for. (1 mark)

(b) What does one DALY equal? (1 mark)

(c) Explain what is meant by health status. (1 mark)

(d) Using data from the graph, draw a conclusion relating to the health status of those aged 10–14 compared with those aged 15–19. (2 marks)

(e) Discuss how DALY reflects the concept of health and wellbeing. (3 marks)

**FIGURE 2.26** The rate of DALY (per 1000 people) from conditions causing death for those aged 10–14 and 15–19 in 2010

![Graph showing DALY rates for males and females aged 10–14 and 15–19 in 2010.](image)

*Source: AIHW, Australian Burden of Disease Study: Fatal Burden of Disease, 2010.*