

Australian Women and Girls' Health  
Research Centre  
School of Public Health



# EVIDENCE REVIEW: QUEENSLAND WOMEN AND GIRLS' HEALTH

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# Contents

<b>1</b>	<b>Summary</b> .....	<b>6</b>
1.1	Rationale.....	6
1.1.1	Life course approach.....	6
1.2	Key Messages.....	6
1.2.1	Priorities.....	6
1.2.2	Cross-cutting themes.....	8
1.3	Main Findings.....	9
1.3.1	Demographics and social context.....	9
1.3.2	Girls (0-12 years).....	9
1.3.3	Girls and adolescent girls (13-17 years).....	10
1.3.4	Young women (18-44 years).....	11
1.3.5	Mid-aged women (45-64 years).....	15
1.3.6	Older women (65 years and over).....	18
1.3.7	<i>Priority populations</i> .....	21
<b>2</b>	<b>Introduction</b> .....	<b>22</b>
2.1	Background.....	22
2.2	Life course approach.....	22
2.3	Data sources.....	22
<b>3</b>	<b>A snapshot of girls and women in Queensland</b> .....	<b>23</b>
3.1	Demographics and social context.....	23
3.2	Social context.....	24
<b>4</b>	<b>Burden of disease for Australian women</b> .....	<b>24</b>
4.1	Burden of disease across the life course.....	24
<b>5</b>	<b>Girls (0-12 years)</b> .....	<b>25</b>
5.1	Bodyweight and health behaviours.....	25
5.1.1	Overweight and obesity.....	25
5.1.2	Physical activity.....	26
5.1.3	Diet.....	26
5.2	Health conditions.....	27
5.2.1	Asthma.....	27
5.2.2	Anxiety disorders.....	27
5.2.3	Eczema/dermatitis.....	27
<b>6</b>	<b>Adolescent girls (13-17 years)</b> .....	<b>27</b>
6.1	Bodyweight and health behaviours.....	27
6.1.1	Overweight and obesity.....	27
6.1.2	Physical activity.....	28
6.1.3	Diet.....	28
6.2	Domestic violence and sexual assault.....	28

6.3	Sexual and reproductive health .....	28
6.4	Mental health .....	28
6.5	Suicide .....	29
6.6	Substance use .....	29
<b>7</b>	<b>Young women (18-44 years) .....</b>	<b>29</b>
7.1	Sociodemographic factors .....	29
7.2	Domestic violence and sexual assault .....	30
7.3	Bodyweight and health behaviours .....	30
7.3.1	Overweight and obesity .....	30
7.3.2	Physical activity .....	30
7.3.3	Tobacco use .....	31
7.3.4	Alcohol consumption .....	31
7.4	Self-rated health .....	31
7.5	Sexual and reproductive health .....	32
7.5.1	Contraception use .....	32
7.5.2	Sexually transmissible infections .....	32
7.5.3	Gynaecological conditions and procedures .....	32
7.6	Maternal health .....	33
7.6.1	Fertility and infertility .....	33
7.6.2	Pregnancy loss and stillbirth .....	33
7.6.3	Pregnancy and birth .....	33
7.6.4	Breastfeeding .....	34
7.6.5	Perinatal depression .....	34
7.7	Mental health .....	35
7.7.1	Suicide .....	35
7.8	Chronic conditions .....	35
7.8.1	Asthma .....	35
7.8.2	Diabetes .....	36
7.8.3	Heart disease .....	36
7.8.4	Musculoskeletal conditions .....	36
7.9	Health service use .....	36
<b>8</b>	<b>Mid-aged women (45-64 years) .....</b>	<b>37</b>
8.1	Sociodemographic factors .....	37
8.2	Domestic violence and sexual assault .....	37
8.3	Bodyweight and health behaviours .....	37
8.3.1	Overweight and obesity .....	37
8.3.2	Physical activity .....	37
8.3.3	Tobacco use .....	38
8.3.4	Alcohol consumption .....	38
8.4	Self-rated health .....	38
8.5	Menopausal Transition .....	38

8.6	Mental health .....	39
8.7	Chronic conditions .....	39
8.7.1	Diabetes .....	39
8.7.2	Heart disease .....	39
8.7.3	Musculoskeletal conditions.....	40
8.8	Cancer and cancer screening.....	40
8.9	Health services use.....	40
<b>9</b>	<b>Older women (65 years and over) .....</b>	<b>41</b>
9.1	Sociodemographic factors .....	41
9.2	Domestic violence.....	41
9.3	Bodyweight and health behaviours .....	41
9.3.1	Overweight and obesity.....	41
9.3.2	Physical activity.....	41
9.3.3	Tobacco use.....	42
9.3.4	Alcohol consumption .....	42
9.4	Self-rated health.....	42
9.5	Mental health .....	42
9.6	Chronic conditions .....	42
9.6.1	Diabetes .....	42
9.6.2	Heart disease .....	43
9.6.3	Musculoskeletal conditions.....	43
9.6.4	Alzheimer’s disease and dementia.....	43
9.7	Health services use.....	43
<b>10</b>	<b>Priority populations among women in QLD .....</b>	<b>44</b>
10.1	Women living in regional, rural, and remote Queensland .....	44
10.2	Aboriginal and Torres Strait Islander women.....	44
<b>11</b>	<b>References.....</b>	<b>46</b>
<b>12</b>	<b>Appendix Tables .....</b>	<b>49</b>
<b>13</b>	<b>Appendix Figures.....</b>	<b>61</b>

# 1 Summary

## 1.1 Rationale

The *Australian Women and Girls' Health Research (AWaGHR) Centre* at the University of Queensland has produced this evidence review early in 2023 for the Queensland Government Department of Health to inform and support the development of the *Queensland Women's Health Strategy*.

This report aims not just to provide a snapshot of the health of women and girls in Queensland, but to place this evidence in context in terms of trends evident across the life course and between generations, and to identify the main variations in outcomes for different groups of women, such as those living in rural and remote areas.

The review draws on findings from numerous publicly available national and state data resources. However, it mainly shows results from analysis of data on Queensland women available in the *Australian Longitudinal Study on Women's Health (ALSWH)*, a national flagship study since 1996 with four age cohorts from ages 18 to over 80 years. This analysis is far from exhaustive but still reveals an insightful picture of the recent past and current direction of women's health in Queensland. In the process, the report highlights where the evidence points to key priority health areas for Queensland women and girls across the life course and any gaps in the currently available data that could provide further insights.

As the focus is on the specific health characteristics and needs of women in Queensland, we have noted national figures from women in Australia mainly where these are the only data available or where they tend to differ substantively from this State. For both this summary and the detailed findings set out in Section 5 onwards, all the statistics provided are for women and girls *living in Queensland*, unless specified otherwise. Similarly in Section 5 onwards, all findings are produced from ALSWH unless referenced otherwise.

### 1.1.1 Life course approach

The life course approach to women's health considers the biological, behavioural and psychosocial pathways that operate across the life course and influence adult health and wellbeing. It emphasises the role of timing and duration of exposures for specific groups of women to inform the development of timely and tailored health policy.

## 1.2 Key Messages

### 1.2.1 Priorities

The evidence has revealed key priority areas to inform the provision of health and support services and preventive strategies as part of a more tailored and timely approach to women and girls' health. Priority areas have been identified based on one or more of the following:

- Relatively high prevalence of burden of disease in general, or relevance to a specific age group or life stage.
- Trends of increased prevalence across generations or with age.
- Notably higher prevalence in Queensland compared with the Australia overall.

- High degree of variation in the prevalence within Queensland, such as between metropolitan areas and rural/remote communities.

### **Domestic violence and sexual assault**

- This can occur at any life stage with immediate and long term impacts, but adolescent and young women are particularly at risk, with even higher risk for some types of abuse in metropolitan or regional centres.

### **Bodyweight and health behaviours**

- Obesity prevalence has increased dramatically across generations and is evident even in trends for adolescent girls. The prevalence increases rapidly with age among young women, with an even higher prevalence outside of metropolitan areas.
- The prevalence of alcohol intake above guidelines is higher for young and mid-aged women in Queensland than in Australia and it is unclear why.
- Smoking shows a clear intergenerational decline and may provide learnings for an integrated public health strategy for other health behaviours.

### **Mental health**

- Poor mental health, as evident in depressive symptoms or anxiety, is a leading cause of burden through to mid-life, but the prevalence has risen sharply among young women. The factors at work and the links to other conditions, such as obesity, are likely multifarious - however evidence is lacking.

### **Sexual, reproductive, and maternal health**

- The prevalence of sexually transmissible infections (STIs) is higher for young women in Queensland than in Australia and it is unclear why.
- The prevalence of Caesarean birth has increased over time, driven by higher percentages of elective C-section in metropolitan areas.
- The prevalence of endometriosis is higher among young women than the previous generation and higher in Queensland than Australia overall. The extent this is due to differences in diagnosis or other reasons is unclear.
- Frequent or bothersome menopausal symptoms (hot flushes and night sweats) can persist many years after menopause, with scope for a higher percentage of women to seek support.

### Chronic conditions and cancer

- The prevalence of diabetes shows a clear intergenerational increase, as well as rapidly rising prevalence with age, for mid-age women.
- There are early signs that the pattern for diabetes is now repeating with the increasing prevalence of heart disease, but later in terms of age.
- Back pain is highly prevalent across generations and is identified as a leading cause of burden of disease for both young and mid-age women, and may have tended to be overlooked.
- Queensland has higher rates for melanoma, colorectal cancer, and lung cancer in women than seen for women in Australia.
- The number of older women with dementia is currently set to increase significantly over coming years.

### 1.2.2 Cross-cutting themes

#### Health services use

- Addressing inequity and systemic barriers should be a core priority across all aspects of health services and promotion. For example, there is a consistent pattern that women outside of metropolitan areas, particularly those living in rural and remote communities and especially young women, are far more likely to report poor access to female GP or a medical specialist.
- This issue appears less the case for older women, who may be better positioned with established social networks to support access to health services, such as finding a suitable female GP or specialist.

#### Preventive health as part of an integrated approach

- The factors at work leading to conditions such as poor mental health and obesity may be closely related. This suggests that an integrated approach is needed to preventive health strategies beyond a focus on diet and physical activity.
- Programs need to be tailored to the specific needs of women, such as those born overseas or living in rural and remote areas.
- The intergenerational increases in the prevalence of poor mental health and obesity provides an early warning for a co-ordinated set of actions tailored for girls and women to avert the growing wave of adverse health outcomes over the coming decade.



## Evidence and data gaps

- New data collections are needed for specific groups of women: adolescent girls between 12 and 18 years, migrants and refugees, gender diverse people, and First Nation women and girls.
- Further research is needed using existing Queensland and national data resources with disaggregate findings on health outcomes and risk factors for women across each age group.
- Sustained research work needed to evaluate the effectiveness and inform the progress of new and targeted health strategies to ensure optimal outcomes for Queensland women and girls.

## 1.3 Main Findings

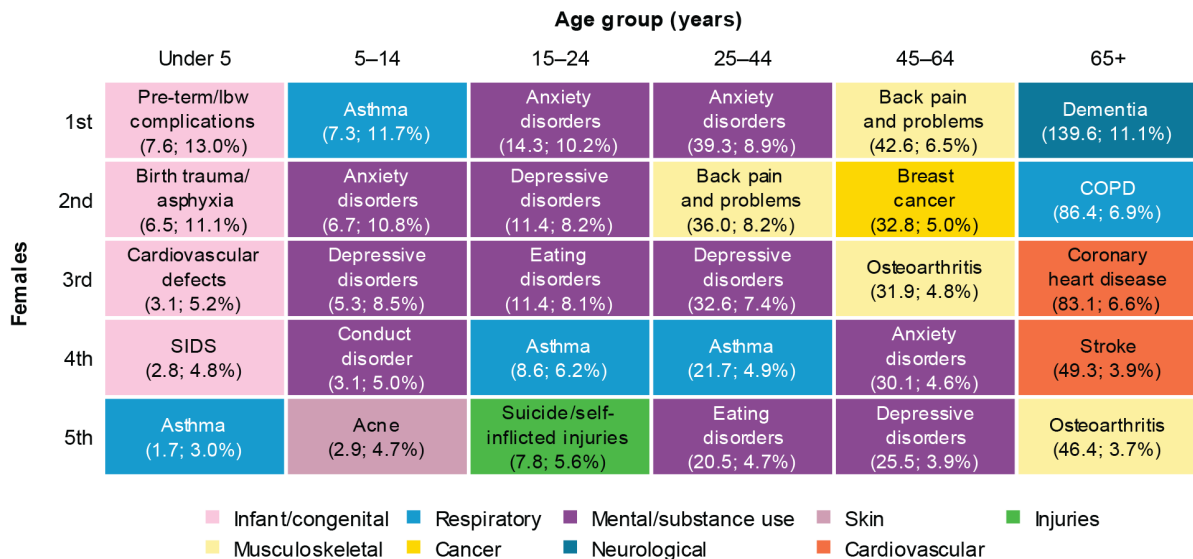
### 1.3.1 Demographics and social context

- Queensland's population of women and girls is the fastest growing, including an increasing proportion of older women, and has the highest fertility rate in Australia.
- Queensland has 2.6 million women and girls, comprising 50.4% of the population, with young and mid-aged women making up approximately half of this group.
- In 2021, there were an estimated 136,956 Aboriginal and Torres Strait Islander women and girls in Queensland, making up nearly 5% of the female population.
- In 2021, around one in four women and girls (23%) were born overseas, mainly in New Zealand or England (32% of those born overseas), followed by Philippines (5.6%), India (5.4%), and China (5.3%).
- A higher proportion of the Queensland population lives in regional areas, with more than one in three living outside of major cities.
- Over one in ten females (13.6%) in Queensland over the age of 15 provided unpaid care for a person with a disability, health condition or old age in 2021 [1].
- More than four in five (86.6%) of all sexual offences reported in 2020-21 were experienced by women or girls, who in two out of three cases knew the person that committed the offence.

### 1.3.2 Girls (0-12 years)

#### *Leading causes of total disease (Figure 1-1):*

- *For Australian girls under the age of 5:* pre-term or low birth weight complications, birth trauma or asphyxia, cardiovascular defects, SIDS, and asthma.
- *For Australian girls aged 5 to 14 years:* asthma, anxiety disorders, depressive disorders, conduct disorder, and acne.



**Figure 1-1 Leading causes of total burden of disease (YLD '000; proportion %) for females by age group, Australian Burden of Disease Study 2022. [2]**

#### Bodyweight and health behaviours

- In 2020, 25% of Queensland girls aged 5-7 years were in the overweight or obese BMI category, increasing to 29% of those aged 8-11 years, with 8% living with obesity, with little variation between metropolitan, regional, or remote areas.
- Around 60% of girls aged 5-7 years met the Australian physical activity guidelines in 2020, declining to 50% of those aged 8-11 years.
- Over four in five girls aged 5-11 years met dietary guidelines for daily fruit intake, but only one in 20 (4.5%) did so for vegetable intake – a figure lower than the 7-11% of girls Australia wide. Girls living outside of metropolitan or regional centres had higher consumption of non-core foods (such as sweetened carbonated drinks and snacks).

#### Health conditions

- Around 9% of girls were living with asthma in 2016, with no evidence of variation between metropolitan, regional, or remote areas.
- In 2016, around 10% of girls reported having anxiety.
- In 2016, around 15% of girls had eczema, dermatitis, or any kind of skin allergy, which is lower than for girls Australia wide (19.0%). The prevalence of these conditions was lower in areas outside the metropolitan areas.

### 1.3.3 Girls and adolescent girls (13-17 years)

The leading causes of total disease burden for Australian adolescent girls/young women (aged 15 to 24 years) were: anxiety disorders, depressive disorders, eating disorders, asthma, and suicide or self-inflicted injuries.

### *Bodyweight and health behaviours*

- In 2020 one in four adolescent girls in Queensland were in the overweight or obese category, with 8% living with obesity. The prevalence of overweight or obesity is higher for children (5-17 years) living outside of major cities and especially in remote areas.
- These are an increase on 2018 figures when 19% of adolescent girls (aged 12-15 years) were in the overweight or obesity category in Queensland, which was higher than the 13% recorded Australia wide in 2017-18.
- In 2020, one in four adolescent girls aged 12-17 years in Queensland met physical activity guidelines, markedly higher than the 9% reported for Australia wide. Two in three (62%) met the dietary recommendations for fruit intake, however only 6% did so for vegetable intake.

### *Domestic violence and sexual assault*

- In 2021, four out of ten (39.6%) sexual offences were experienced by adolescent girls (aged 10-19 years).

### *Mental health and suicide*

- Anxiety disorder and affective or mood disorders (including depression, bipolar disorder) are amongst the most prevalent non-fatal conditions in this age group.
- For Queensland adolescents aged 13 years (of both genders), one in five have an emotional or mental health condition, increasing to one in three for ages 15-17 years.
- For adolescents (both genders) aged 12-17 years in Australia, 6-8% have anxiety disorders have major depressive disorder as reported by parents and carers.
- In 2020, 31% of adolescent girls in Australia aged 12-14 years and 46% of those aged 15-17 years reported high or very high levels of psychological distress.
  - For those aged 11-15 years, 7% met the diagnostic criteria for major depressive disorder and 10% reported self-harm in the previous 12 months.
  - For those aged 16-17 years, 20% met the diagnostic criteria for major depressive disorder and 17% reported self-harm in the previous 12 months.
- In Queensland, the rate of *suspected suicides* among adolescent girls aged 15-19 years was 7.1 per 100,000 in 2020, while the rate of *suicide deaths* Australia wide was 6.1 per 100,000 in 2021.

### *Sexual and reproductive health*

- In 2020, 3% of mothers who gave birth in Queensland were under age 20. This is a decline on the 7% figure for 2000 but is higher than the 1.8% for Australia overall.

## 1.3.4 Young women (18-44 years)

The leading causes of total disease burden for young Australian women (aged 25-44 years), are *anxiety disorders, back pain and back problems, depressive disorders, asthma, and eating disorders*.

In Queensland, around one in three women are aged 18-44 years. For many this life stage covers not only their shift away from home and from education into paid employment, but of family formation and maternal care.

*Sociodemographic factors:*

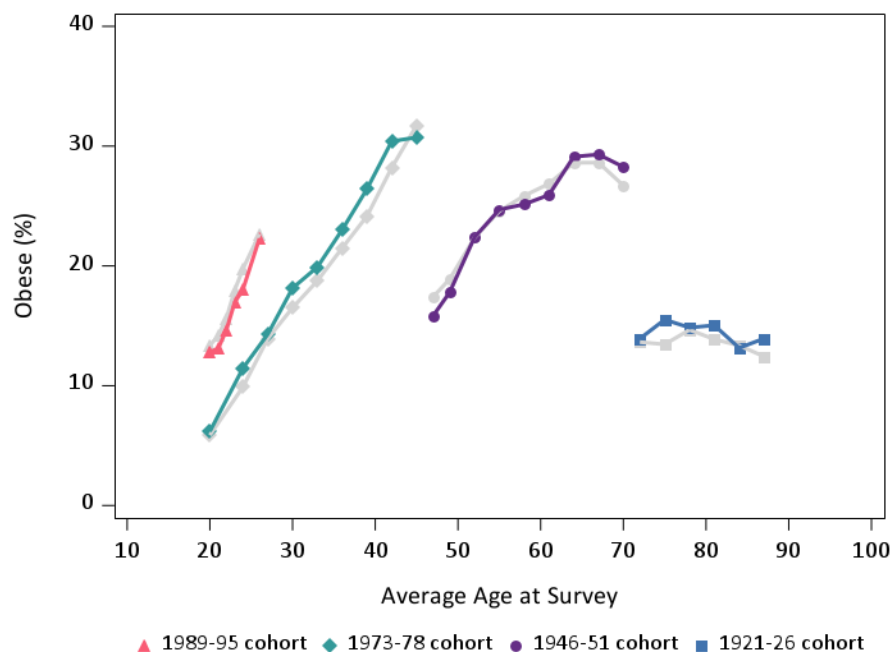
- Women’s participation in the labour force has risen from 82% in their early 20s to over 90% by their late 20s, while those who found it difficult or impossible to manage on their income dropped from 25% to 12%.
- The previous generation reached a similar 90% labour force participation in their mid 40s, with 17% reporting difficulties in managing on their income at this time, an increase from around 13% during their main childbearing years.

*Domestic violence and sexual assault*

- One in two (49%) women in their mid to late 20s have experienced a partner abusive act (including physical, sexual, harassment, and behavioural abuse) – with 15.2% having experienced this in the last 12 months – and 17% report having ever been in a violent relationship. Those living in metropolitan or regional centres were more likely to report partner abuse.

*Bodyweight and health behaviours*

- 45% of women in their 20s are in the overweight or obese category, with around one in five living with obesity. This is both higher and increasing more rapidly with age than for the previous generation (Figure 1-2). By age 40 the prevalence of obesity was 30%, with an even higher percentage outside of metropolitan areas.



**Figure 1-2 Percentage of women living with obesity in Queensland (coloured lines) and Australia (grey line) across the life course, Australian Longitudinal Study on Women’s Health.**

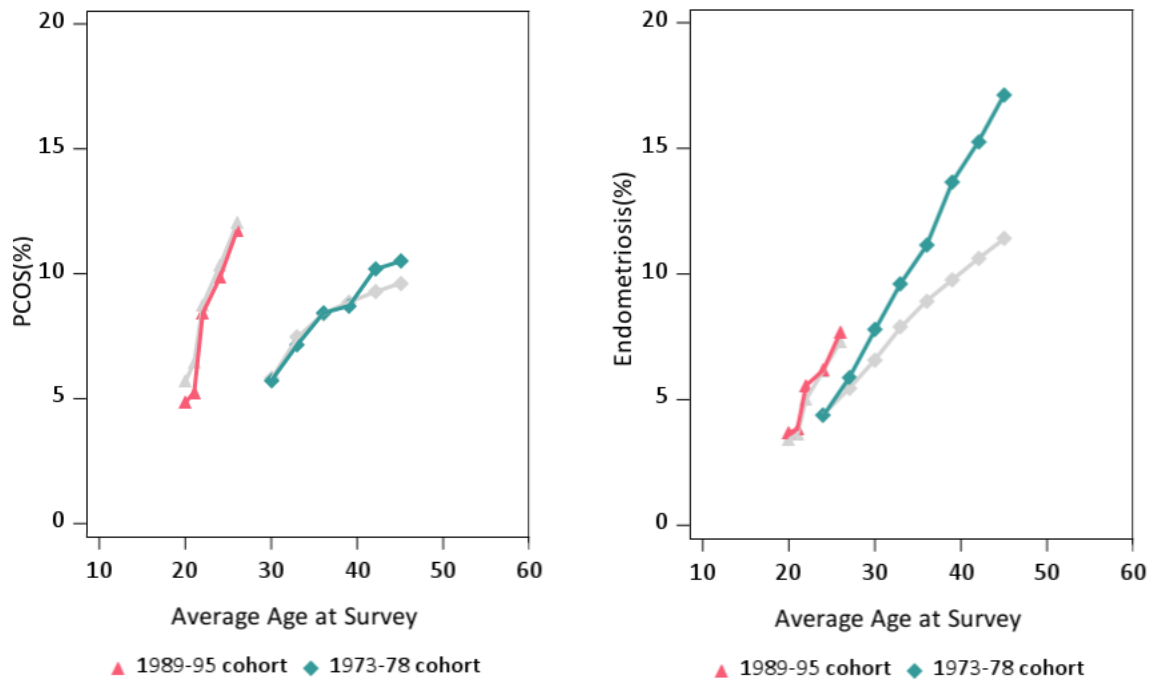
- Over 60% of women in their 20s meet the physical activity guidelines. Similarly, about 50% of previous generation women met the physical activity guidelines, but with a dip during the main childbearing years. The prevalence of smoking has declined to one in ten for women in their 20s. Around four in ten of women in their mid 30s to 40s exceeded the guidelines for alcohol intake in the previous year, which is higher than in Australia as a whole.
- Around 40% of women in their early 20s rated their health as excellent or very good, which is lower than the previous generation at the same age and even in their mid-30s to 40s when this reached 50%. For both generations, these figures tend to be lower than for Australian women overall.

#### *Self-rated health*

- A lower percentage of women (around 40%) in their early 20s report very good or excellent health compared with the previous generation at this age, though this gap closes by their late 20s as the prevalence improves to 46%. Around 55% of Queensland women in their mid-30s to early 40s rated their health as excellent or very good, which tended to be lower than the 60% of Australian women overall.

#### *Sexual and Reproductive Health*

- The main methods of contraception used by women in their 20s were oral contraceptives (33%), then condoms (32%), and long-acting reversible contraception (LARC, 22%). Those living outside of metropolitan or regional centres were less likely to use oral contraceptives or LARC. One in five (19%) did not use any contraception in their mid-20s (in part due to pregnancy or trying to conceive).
- Similarly, oral contraceptives (23%) were the main method used by the previous generation in their mid to late 30s, followed by condoms (19%), LARC (12%), with 42% not using any contraceptives. Those living outside of metropolitan or regional centres were more likely to use oral contraceptives but less likely to use LARC.
- The prevalence of sexually transmissible infections (STIs) is higher in Queensland than in Australia. Chlamydia is the most common STI among women (492 per 100,000), followed by gonorrhoea and syphilis.
- The prevalence of PCOS diagnosis rises with age - 5% of women at age 20 had PCOS, whereas in the previous generation this rose from 6% at age 30 to 10% in their 40s (Figure 1-3).
- Similarly, diagnosis of endometriosis rises rapidly as women age. Around 5% of women in their early-to-mid 20s report having endometriosis, while for the previous generation 17% had endometriosis in their early 40s. By this age, cumulative prevalence of endometriosis is higher amongst Queensland women than Australia wide (Figure 1-3).



**Figure 1-3 Percentage of women in Queensland (coloured lines) and Australia (grey line) who have polycystic ovary syndrome (PCOS) or endometriosis across the life course, Australian Longitudinal Study on Women’s Health.**

- For Australian women, 1.3% experience premature menopause (before age 40 years) and 5.8% early menopause (between 40 and 44 years).

#### *Maternal health*

- In 2020, over 58,000 women gave birth in Queensland with 6% of these using assisted conception, including one in ten mothers aged 35-39 and one in five aged 40-44 years.
- The percentage of women who have experienced miscarriage doubled from around 5% to 10% by their mid-20s. This is the same increase seen for the previous generation, which reached over 30% of women in their 40s.
- Since 2000, Caesarean section in Queensland has risen from one in four (26%) to one in three (37%) deliveries in 2020. Similarly, a third of deliveries were induced. Figures related to birth outcomes, including birthweight, length of gestation, and perinatal mortality have remained essentially unchanged over the same period.
- In 2020, 7% of babies had low birthweight with a similar percentage born preterm. Over 93% of mothers exclusively breastfed or provided mixed feeding for their baby in the 24 hours prior to hospital discharge.
- Of women who gave birth in 2020, more than one in five (22%) were in the obese category, 14% experienced gestational diabetes, and 7% had a depressive disorder.
- For Queensland women in their mid-40s who had ever given birth, 10% had experienced gestational diabetes, 13% hypertensive disorder during pregnancy, 16% preterm birth, and 42% Caesarean section, of which 30% were elective and 12% emergency caesarean. The prevalence of ever having had elective caesarean is highest in metropolitan areas and is higher than the rest of Australia.

### *Mental health*

- More than one in five women in their mid-20s have depressive symptoms (based on their low mental health score), which is higher than the previous generation at the same age who have remained at around 15% out to their mid-40s.
- Other measures of mental health show a decline with age, including one in five women in their 20s reporting high or very high psychological distress in 2017. This compares with 10% of the previous generation when aged 35-44. This decline is reflected in figures for women in Australia by their mid-30s for other mental health conditions, including anxiety disorders, affective disorders (depression and bipolar disorders), and substance use.
- In Queensland, the rate of suspected suicides in 2020 for women aged 20-24 years was 8.9 per 100,000, rising to a peak of 11.9 for ages 30-34 years, and then down to 6.1 per 100,000 for ages 35-39 years.

### *Chronic conditions*

- Around one in four (26%) of women in their 20s report ever having had Asthma, which is about the same as the previous generation at the same age. This increased to 32% of women by their 40s. These also appear to be higher and rising at a faster rate than was the case 25 years ago for women in their mid-40s.
- The prevalence of diabetes appears to have remained low for women in their mid-20s but rises to 5% for women in their mid-40s. This percentage was not reached in the previous generation until their early 50s.
- The prevalence of heart disease for those in their mid-40s is still below 2%.

Around 20% of women in their 20s report often having back pain, a higher prevalence than seen in the previous generation at this age (12%) and close to the prevalence reported by women in their 50s. Around one in ten women reported having had arthritis by their early 40s.

### *Health services use*

- Around 10-15% of women in their 30s and 40s use GP services 7 or more times per year.
- 40% of women in their 20s living in rural/remote communities rated their level of access to a female GP as fair or poor, compared with 10% in metropolitan areas.
- Around 45% to 50% of women in their mid-30s to early 40s had at least one specialist visit in the previous year.

## 1.3.5 Mid-aged women (45-64 years)

The leading causes of total disease burden for mid-aged Australian women are *back pain and back problems, breast cancer, osteoarthritis, anxiety disorders, and depressive disorders*.

Around one in four Queensland women are in this age group. This life stage typically covers the menopausal transition, and life events such as children leaving home and changes in labour force participation as they approach their retirement.

### *Sociodemographic factors:*

- Over 90% of Queensland women in their mid to late 40s are participating in the labour force. This is higher than for the previous generation at 70% to 75% participation in their 50s that has since declined to around 40% by their early 60s.
- The prevalence of women who find it difficult to manage on their income has declined from 15% for women in their 50s to around 10% in their early 60s.
- 15% of women in their mid to late 40s are in a carer role, with over half caring for a parent or parent-in-law, and a third are caring for a child.

### *Domestic violence and sexual assault*

- For women in their mid to late 40s, nearly one in two (46%) report having ever experienced a partner abusive act, with 12% within the last year and 18% ever having been in a violent relationship.

### *Bodyweight and health behaviours*

- 30% of women in their mid to late 40s are in the obese category. This compares with 15% of the previous generation at around that age and that prevalence has since doubled to a peak of 30% for women in their early 60s.
- By their early 60s, most (60%) mid-age women reached PA guidelines, with the proportion increasing for women with higher education levels.
- The prevalence of smoking among women has declined across generations and with age: from 18% when in their late 40s down to 8% by their early 60s.
- On alcohol consumption, 44% of women aged in their late 40s to early 50s have exceeded guidelines in the previous year, which is a higher percentage than for Australian women at this age (33%).

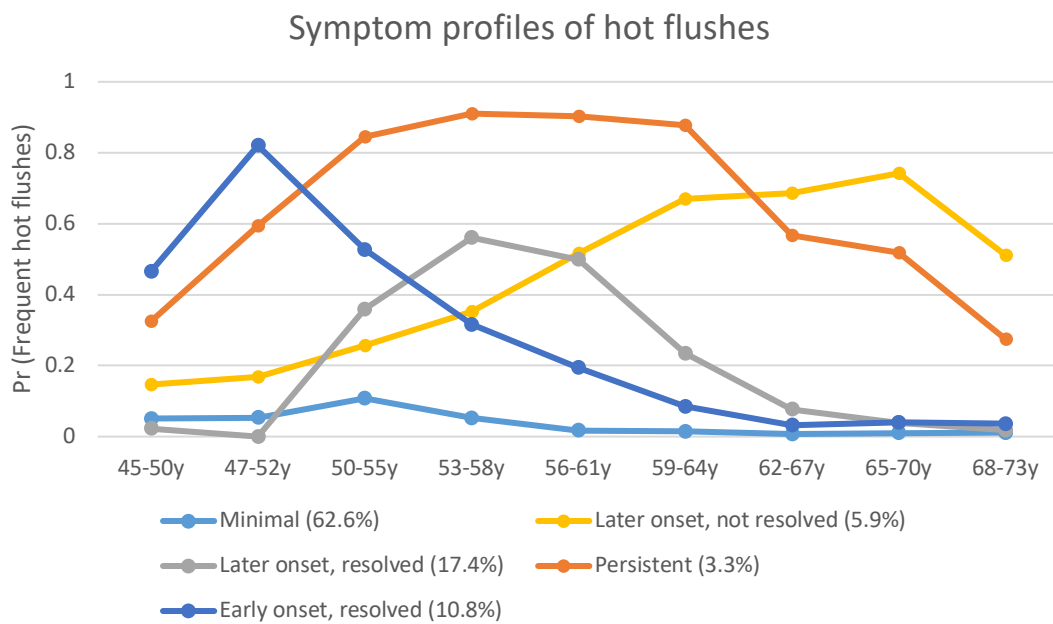
### *Self-rated health*

- Across the mid age range, a steady 45% to 48% of women rate their health as excellent or very good, with no evidence of variation between metropolitan areas and other parts of Queensland.

### *Menopausal Transition*

- The average age at menopause for Queensland women is 50.8 years.
- For women currently aged 43-48 years
  - One in ten (10%) have undergone a hysterectomy or oophorectomy, one in four women (23%) are experiencing perimenopause, and 7.4% are already postmenopausal.
  - Nearly half (48%) of women aged 43-48 years reported experiencing vasomotor symptoms (VMS; hot flushes and/or night sweats), with 29% having symptoms often/sometimes and 34% finding them bothersome (a little/a lot).
  - Of those with symptoms often/sometimes, one in four (23%) sought help. This prevalence of VMS symptoms is similar to that found for Australian women.
  - Among women who often experienced VMS, 11.9% were taking HRT (compared with 1.8% in women who never experienced VMS).





**Figure 1-4 Symptom profiles of hot flushes, with the prevalence of hot flushes over time (N = 4,459), Australian Longitudinal Study on Women’s Health.**

- For women aged 59-64 years
  - More than 95% of women had reached menopause (either naturally or surgically), 62% experienced natural menopause, and 34% had undergone a hysterectomy and/or bilateral oophorectomy.
  - The trajectory or profile of symptoms occurs throughout the 50s and early 60s - as shown for hot flushes in Figure 1-4, with around 9% of Australian women aged 59-64 still experiencing hot flushes.

#### *Mental health*

- The percentage of women with depressive symptoms declined slightly from 10% in their early 50s to 8% in their 60s. These tended to be lower percentages than for women in Australia as a whole.
- In Queensland, 15% of mid-aged women reported experiencing psychological distress in 2017-18. This was the same as found for women in Australia, which also reported on anxiety-related conditions (18%) and depressive disorders (17%).

#### *Chronic conditions*

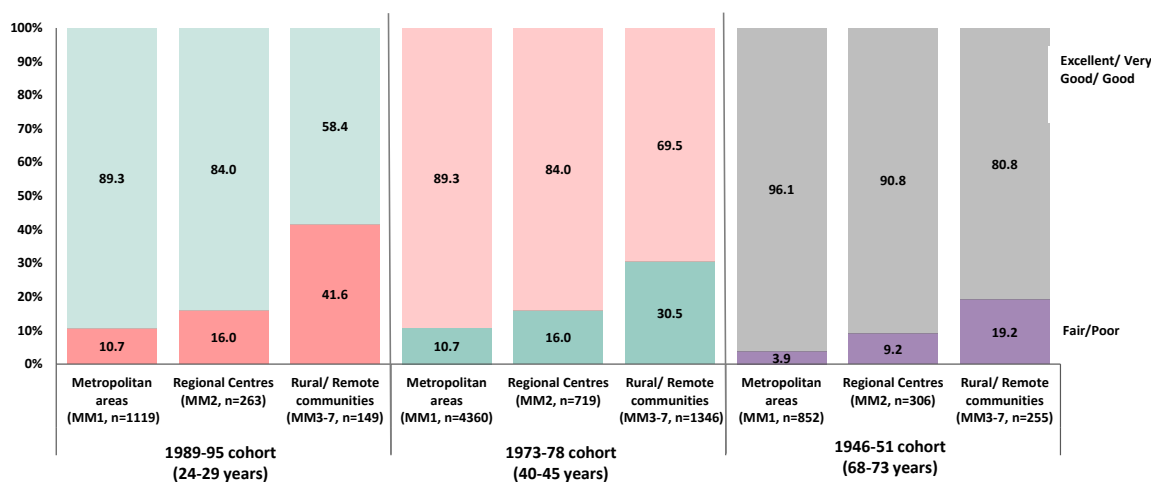
- The percentage of mid-aged women in Queensland with diabetes increases rapidly from the late 40s, with the prevalence more than doubling to reach one in ten by their early sixties, closely matching the increasing prevalence for women in Australia.
- The prevalence of heart disease rises from 2-3% when women are in their early 50s to over 10% by their early 60s.
- Around 20% of women report experiencing back pain often, while the prevalence of arthritis doubles from around 23% in their 50s to over 55% in their 60s.

## Cancer

- The five most common cancers diagnosed among Queensland women are breast cancer (129 per 100,000), melanoma (61.5), colorectal cancer (50.8), lung cancer (43.7) and lymphoma (18.8).
- The rates for melanoma, colorectal cancer, and lung cancer in Queensland are higher than for women in Australia overall.
- The breast cancer relative survival rate is 92% for Queensland women, for melanoma 97%, and colorectal cancer 73%.

## Health services use

- Across the mid-age range, around 15% of women used GP services 7 or more times per year.
- 30% of women in their mid-to-late 40s in rural/remote communities rated their level of access to a female GP as fair or poor, compared with 10% in metropolitan areas (Figure 1-5).
- From their early 50s to their early 60s, 40% to 50% of women used a least one specialist service in the previous 12 months.
- Around 10% of women in their mid-to-late 40s living in metropolitan areas rated their level of access to specialists as fair or poor, rising to 30% for those living in rural/remote communities.
- By their early 60s, around one in four mid-aged women in Queensland have had at least one hospital visit in the previous 12 months.



**Figure 1-5 Level of access to a female general practitioner in Queensland women by area of residence.**

### 1.3.6 Older women (65 years and over)

The leading causes of total disease burden for older Australian women are *dementia*, *chronic obstructive pulmonary disease*, *coronary heart disease*, *stroke*, and *osteoarthritis*. Around 17% of Queensland women are aged 65 years and over.

This life stage is characterised by the shift from participating in the labour force to full retirement and for many women taking on carer roles.

*Sociodemographic factors:*

- Approximately one in ten women in Queensland have difficulty managing on their income in their mid-60s, declining to one in twenty women (around 5%) in their 80s.
- One in five (22.5%) women aged 68-73 years were carers, with this rising to more than one in four (26.8%) for women outside of metropolitan or regional centres.

*Domestic violence and sexual assault*

- The prevalence of domestic violence reported by older women is lower than for younger generations, with 16.3% of women aged 68-73 reporting that they had experienced domestic violence and less than 1% had been in a violent relationship in the last 12 months.

*Bodyweight and health behaviours*

- More than one in four women (28%) in their mid-60s to early 70s is living with obesity. This compares with 15% seen in the previous generation at this age. From the early 70s to late 80s, the percentage of obese women remains steady at 15%.
- Around 60% of women in their mid-60s to early 70s meet physical activity guidelines, whereas for the previous generation this percentage declines from around 40% of women in their mid-70s to 25% of those in their 80s.
- Around 5% of women smoke in their late 60s and this declines further with age.
- Around 10% of older women exceed recommendations for alcohol intake.

*Self-rated health*

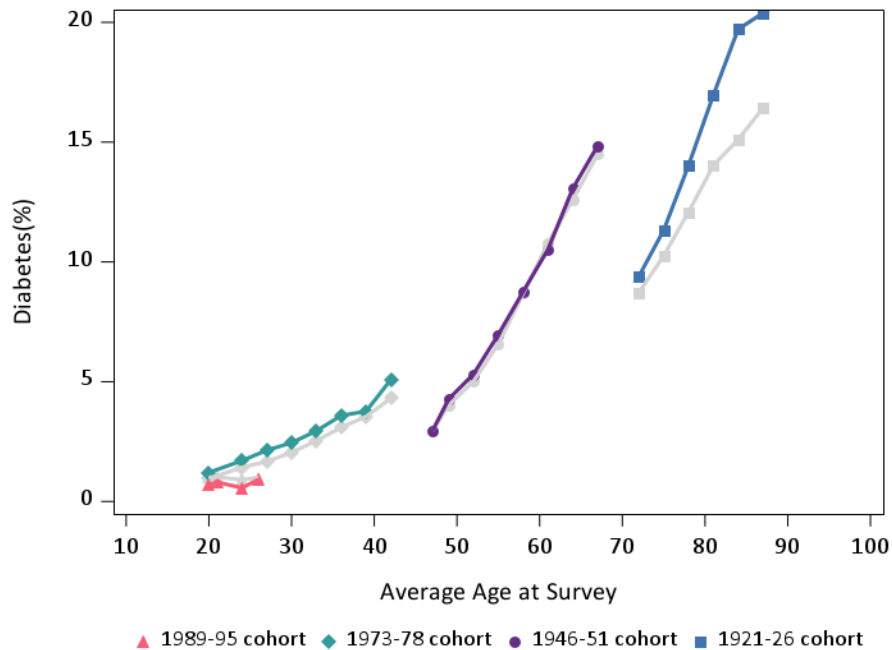
- For women who are currently in their late 60s or early 70s, around 45% report excellent or very good health. This is higher than the previous generation at around 30% in their mid-70s, declining to less than 20% of those in their mid-80s. These figures tend to be lower for women outside of metropolitan centres.

*Mental health*

- The percentage of women with depressive symptoms declined relatively steady at around 7% for older women and did not differ significantly by area of residence.

*Chronic conditions*

- Around 15% of Queensland women in their late 60s are living with diabetes, a prevalence higher than the previous generation (10% in their 70s). Around 20% of women in their mid-80s have diabetes, which is higher than women Australia wide in this age group and may indicate successful diabetes management (Figure 1-5).



**Figure 1-6 Percentage of women in Queensland (coloured lines) and Australia (grey lines) who have ever had diabetes across the life course, Australian Longitudinal Study on Women’s Health.**

- The prevalence of heart disease is around 20% for those aged in their early 70s rising rapidly to over 40% by their late 80s.
- Around 25% of older women report experiencing back pain often.
- Almost 60% of women in their 60s have had arthritis, rising to 70% of women in their 80s.
- Dementia is the leading cause of death for women aged 75 years and over, with older women comprising around 60% of the 94,000 people with dementia in 2019 and an age standardised mortality rate of 45 per 100,000 women. On current trends the prevalence and incidence of dementia will increase as women tend to live longer.

*Health services use*

- Across the mid-age range, around 15% of women used GP services 7 or more times per year
- 20% of women in their mid-to-late 40s in rural/remote communities rated their level of access to a female GP as fair or poor, compared with 3% in metropolitan areas (Figure 1-5).
- Over 60% of women in their early 70s used a least one specialist service in the previous 12 months, with 90% reporting good to excellent access to these services.
- By their early 70s, around one in three have had at least one hospital visit in the previous 12 months.

### 1.3.7 Priority populations

#### *Women living in regional, rural, and remote Queensland*

- Mid-aged women living in more rural and remote areas of Queensland were more likely to gain trade or certificate qualifications and less likely to have a university degree.
- Older women in large or medium sized towns (outside of metropolitan or regional centres) were more likely to have difficulty in managing on income.
- Suicide amongst Queensland women in 2020 is higher in rural and remote communities than the metropolitan or regional centres.

#### *Aboriginal and Torres Strait Islander women*

- Since 2011, the percentage of young Aboriginal and Torres Strait Islander women aged 20-24 who had completed Year 12 or equivalent increased from 51.8% to 70% in 2021; furthermore, attendance of university or other higher education increased from 8.6% to 13.9%.
- The fertility rate for Aboriginal and Torres Strait Islander women is higher than non-Indigenous women until age 30, with more than 140 births per 1,000 women for those aged 20-29 years.
- Aboriginal and Torres Strait Islander females are 6.5-times more likely to report an assault than a non-Indigenous female.
- In 2021, the rate of syphilis notifications was approximately 19-fold higher amongst Aboriginal and Torres Strait Islander females than non-Indigenous females in Queensland [29]; however the rate has been on a downward trajectory since 2017.
- Suicide rates for Aboriginal and Torres Strait Islander girls and women are approximately three-fold higher than for non-Indigenous girls and women (14.0 vs 3.1 per 100,000 persons, respectively).
- For Australia the burden from chronic diseases (e.g., musculoskeletal problems, cardiovascular disease, and respiratory disorders) are over 1.5-fold greater amongst Aboriginal and Torres Strait Islander women than non-Indigenous women in 2018.
- The burden of disease for Aboriginal and Torres Strait Islander women in Queensland was similar or lower than Aboriginal and Torres Strait Islander women in other states and territories.

Overall there is a lack of health data available for Aboriginal and Torres Strait Islander women in Queensland disaggregated by age group.

## 2 Introduction

### 2.1 Background

As women move through different stages of life, they experience biological, social, and environmental changes that affect their health acutely and long-term. Health outcomes throughout the life course are also influenced by women's own lifestyle choices, their mother's health, the perinatal environment, and genetic inheritance before they were even born. Therefore, it is important to consider health risks and needs at all stages of life.

This review highlights the characteristics of women and girls in Queensland, key health conditions that are important at each life stage, health service use and satisfaction, and compares the health of Queenslanders with Australian women overall. Differences in the health of Queensland girls and women due to socioeconomic circumstances are also examined.

### 2.2 Life course approach

The life course approach to women's health considers the biological, behavioural and psychosocial pathways that operate across the life course and influence adult health and wellbeing. It emphasises the role of timing and duration of exposures for specific groups of women to inform the development of timely and tailored health policy.

### 2.3 Data sources

- Australian Longitudinal Study on Women's Health (ALSWH; follow-up every 3 years since 1996)
- Children's health studies: Mothers' and their Children's Health study (2016; a substudy of the ALSWH)
- National databases – collected annually: National Perinatal Data Collection, Australian Cancer Database, Medicare Benefit Scheme Database
- National surveys: National Health Survey (2014-15, 2017-18), Australian Census (2021), Australian Burden of Disease Study (2018, 2022)
- Queensland surveys: Queensland Preventive Health Survey (2015, annually), Growing Up in Queensland (2020), Queensland Cancer Statistics (annually), Births Queensland (2020), Suicide in Queensland Annual Report (2021), HIV in Queensland (2020), Syphilis in Queensland (2021), Notifications of bloodborne viruses and sexually transmissible infections (BBVSTIs) in Queensland (annually), Elder Abuse Statistics in Queensland (2020-21)
- Mental health specific: National Study of Mental Health and Wellbeing 2020-21, headspace National Youth Mental Health Survey 2020, Australian Child and Adolescent Survey of Mental Health and Wellbeing (2013-14)
- Maternal, sexual, and reproductive health specific: National Perinatal Data Collection (annually), Australian and New Zealand Assisted Reproduction Database (annually), National Notifiable Diseases Surveillance System (annually)

### 3 A snapshot of girls and women in Queensland

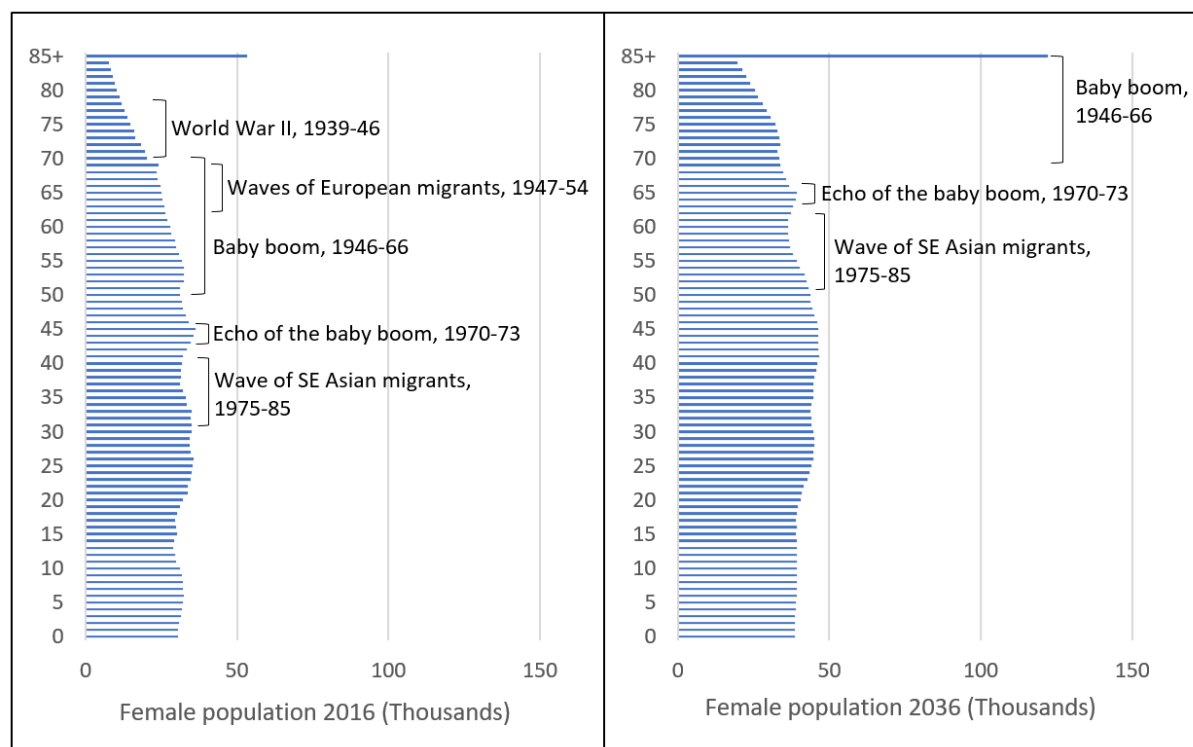
#### 3.1 Demographics and social context

- Queensland has the 3<sup>rd</sup> largest population in Australia with 5.3 million residents in June 2022 [3].
- 64.4% of the Queensland population live in a major city, compared with ~75% in other Australian states and territories (Table 3-1) [4].

**Table 3-1 Population of Queensland by remoteness area, 2021 [4]**

Remoteness Area	Total	%
Major Cities	3,362,107	64.4
Inner Regional	1,026,286	19.7
Outer Regional	703,248	13.5
Remote Australia	72,393	1.4
Very Remote	53,619	1.0
<i>Total</i>	<i>5,217,653</i>	

- Queensland has 2.6 million girls and women, comprising 50.4% of the population, with young and mid-aged women making up approximately half of this group [5]
- In 2021, there was an estimated 136,956 Aboriginal and Torres Strait Islander girls and women in Queensland, making up nearly 5% of the female population; the 2<sup>nd</sup> largest group behind New South Wales (169,236 females) [6].



**Figure 3-1 Comparison of the estimated female resident structure in Queensland in 2016 and 2035 [7].**

- The female population age structure in Queensland is shaped by historical events (Figure 3-1), including the post-war baby boom, its echo, and periods of high migration from different regions overseas.
- The older generation (65 years and over) is still the fastest growing population in Queensland, increasing from 11.5% in 2000 to 16.1% in 2020 [8]
- The total fertility rate in Queensland remains higher than the national rate in 2021-22 (1.77 vs 1.69 per 1,000 females, respectively) [5].
- Queensland had the fastest annual population growth rate in 2021-2022 (2.0% compared to the national average of 1.1%); the state with the second highest growth rate was Western Australia at 1.3% [3].
- Since the COVID-19 pandemic, net interstate migration has been the major contributor to population growth in Queensland [3].
- Of the 2.6 million girls and women in Queensland in 2021, over 600,000 or 23% were born overseas [1].
- Of the girls and women in Queensland born overseas, one in three (33%) were born in England or New Zealand, the other predominant countries of birth were the Philippines (5.6%), India (5.4%), China (5.2%) [1].

## 3.2 Social context

- Over one in ten females (13.6%) in Queensland over the age of 15 provided unpaid care for a person with a disability, health condition or old age in 2021 [1].
- In Queensland more than four in five (86.6%) of all sexual offences reported in 2020-21 were experienced by women [9], which is similar to Australia overall (85.7%, 2021) [10].
- In 2021, the rate of sexual assaults against women that were reported to the police was similar for Queensland and Australia (72.8 vs 77.9 per 100,000 population, respectively) [10].
- Over two-thirds of sexual offences towards females were committed by a person known to the victim, comprising one-third by family member and one-third by a non-family member [9].

## 4 Burden of disease for Australian women

### 4.1 Burden of disease across the life course

Figure 4-1 shows the five leading causes of total disease burden, using years of healthy life lost to disease and injury per 1000 women (DALY '000), across each age group for Australian girls and women in 2018.



		Age group (years)					
		Under 5	5–14	15–24	25–44	45–64	65+
Females	1st	Pre-term/lbw complications (7.6; 13.0%)	Asthma (7.3; 11.7%)	Anxiety disorders (14.3; 10.2%)	Anxiety disorders (39.3; 8.9%)	Back pain and problems (42.6; 6.5%)	Dementia (139.6; 11.1%)
	2nd	Birth trauma/asphyxia (6.5; 11.1%)	Anxiety disorders (6.7; 10.8%)	Depressive disorders (11.4; 8.2%)	Back pain and problems (36.0; 8.2%)	Breast cancer (32.8; 5.0%)	COPD (86.4; 6.9%)
	3rd	Cardiovascular defects (3.1; 5.2%)	Depressive disorders (5.3; 8.5%)	Eating disorders (11.4; 8.1%)	Depressive disorders (32.6; 7.4%)	Osteoarthritis (31.9; 4.8%)	Coronary heart disease (83.1; 6.6%)
	4th	SIDS (2.8; 4.8%)	Conduct disorder (3.1; 5.0%)	Asthma (8.6; 6.2%)	Asthma (21.7; 4.9%)	Anxiety disorders (30.1; 4.6%)	Stroke (49.3; 3.9%)
	5th	Asthma (1.7; 3.0%)	Acne (2.9; 4.7%)	Suicide/self-inflicted injuries (7.8; 5.6%)	Eating disorders (20.5; 4.7%)	Depressive disorders (25.5; 3.9%)	Osteoarthritis (46.4; 3.7%)

■ Infant/congenital    ■ Respiratory    ■ Mental/substance use    ■ Skin    ■ Injuries  
■ Musculoskeletal    ■ Cancer    ■ Neurological    ■ Cardiovascular

**Figure 4-1 Leading causes of total burden of disease (DALY '000; proportion %) for females by age group, Australian Burden of Disease Study 2022. [2]**

Leading causes of total disease burden (DALY '000; proportion %) in 2022. [2]:

- For young girls under the age of 5 years: pre-term/lbw complications (7.6; 13.0%), birth trauma/ asphyxia (6.5; 11.1%), cardiovascular defects (3.1; 5.2%), SIDS (2.8; 4.8%) asthma (1.7; 3.0%).
- Girls and adolescents aged 5 to 14 years: asthma (7.3; 11.7%), anxiety disorders (6.7; 10.8%), depressive disorders (5.3; 8.5%), conduct disorder (3.1; 5.0%), acne (2.9; 4.7%)
- Young women aged 15 to 24 years: anxiety disorders (14.3; 10.2%), depressive disorders (11.4; 8.2%), eating disorders (11.4; 8.1%), asthma (8.6; 6.2%), suicide /self-inflicted injuries (7.8; 5.6%)
- Young women aged 25-44 years: anxiety disorders (39.3; 8.9%), back pain and problems (36.0; 8.2%). depressive disorders (32.6; 7.4%), asthma (21.7; 4.9%), eating disorders (20.5; 4.7%)
- Mid-age women aged 45 – 64 years: back pain and problems (42.6; 6.5%), breast cancer (32.8; 5.0%) osteoarthritis (31.9; 4.8%) anxiety disorders (30.1; 4.6%) depressive disorders (25.5; 3.9%)
- Older women aged 65 years and over: dementia (139.6; 11.1%) COPD (86.4; 6.9%) coronary heart disease (83.1; 6.6%) stroke (49.3; 3.9%) osteoarthritis (46.4; 3.7%).

## 5 Girls (0-12 years)

### 5.1 Bodyweight and health behaviours

#### 5.1.1 Overweight and obesity

Childhood overweight and obesity is associated with early puberty [11], menstrual irregularity [12] and may increase the risk of PCOS [13]. Furthermore, obese children are more likely to be obese in adulthood [14] increasing the likelihood of a range of poor health outcomes.

According to the Queensland Preventive Health Survey:

- 25% of girls aged 5-7 years and 30% of girls aged 8-11 years in 2020 were overweight/obese; of these, approximately one-third (7.8% and 8.8%, respectively) were living with obesity [15].

Compared to Australian girls overall, the National Health Survey 2017-2018 [16] showed that:

- The percentage of Queensland girls aged 2-4 years who were overweight or obese in 2017-2018 was comparable to that of Australian girls of the same age.
- The percentage of Queensland girls aged 5-7 years who were obese in 2017-2018 was slightly lower than Australia overall (6.2% vs 9.3%, respectively).
- While there were less overweight Queensland girls aged 8-11 years in 2017-2018 than nationally (10.6% vs 13.3%, respectively), there was a higher percentage of obese girls in Queensland than Australia overall (9.8% vs 6.8%, respectively).

The Mothers' and their Children's Health study conducted in 2016 (and a substudy of the Australian Longitudinal Study on Women's Health) did not find any significant differences for girls aged 2-12 in the distribution of body mass index categories by area of residence, there was also little variation for Queensland girls overall (Appendix Table 12-1).

### 5.1.2 Physical activity

The Australian Physical Activity and Sedentary Behaviour Guideline [17] recommends that children aged 5-17 years do a minimum of 60 minutes of moderate to vigorous physical activity per day. Furthermore, muscle and bone-strengthening activities should be undertaken at least 3 times per week within the 60 minutes of daily activity.

According to the Queensland Preventive Health Survey, trends in physical activity for girls living in Queensland [15] are:

- Approximately 60% of girls aged 5-7 years met the Australian physical activity guidelines in 2020 – an increase from 55% in 2015.
- In 2020, girls aged 8-11 years were less active compared to 5-7 year old girls (50% met guidelines vs 61%, respectively).
- The percentage of active girls aged 8-11 years increased from 35% in 2015 to 50% in 2020.

The Mothers' and their Children's Health study did not find any differences in physical activity by areas of residence within Queensland (Appendix Table 12-2).

### 5.1.3 Diet

The Australian Dietary Guidelines recommend that children aged 4-8 years consume 4.5 serves of vegetables and 1.5 serves of fruit per day whereas those aged 9-11 years should consume 5 serves of vegetables and 2 serves of fruit per day [18].

- In 2020, 82.2% of Queensland girls aged 5-11 years met the requirements for fruit consumption, however only one in 20 (4.5%) met the requirements for vegetable intake [15].
- A higher proportion of Queensland girls met the recommendation for fruit intake in 2020 compared to Australia overall (82% Queensland girls aged 5-11 years [15] vs ~65% of Australian girls aged 4-11 years [19]).

- Conversely, a slightly lower proportion of Queensland girls met the recommendation for vegetable intake in 2020 compared to Australia overall (4.5% Queensland girls aged 5-11 years [15] vs 7-11% of Australian girls aged 4-11 years [19]).

Data from the Mothers' and their Children's Health study did not find any differences by areas of residence within Queensland in the consumption of fruit and vegetable, sweetened beverages, and fat from dairy in girls aged 2-12, however non-core foods were more likely to be consumed by girls living outside of metropolitan or regional centres (Appendix Table 12-3).

## 5.2 Health conditions

### 5.2.1 Asthma

- Approximately 1 in 10 (9%) girls up to the age of 12 living in Queensland had asthma in 2016 (Mothers' and their Children's Health study; data not shown).
- Prevalence of asthma amongst Queensland girls did not differ by area of residence (Appendix Table 12-4).

### 5.2.2 Anxiety disorders

- Approximately one in ten girls up to the age of 12 years living in Queensland had anxiety in 2016 (Mothers' and their Children's Health study; data not shown).
- The prevalence of anxiety did not differ by area of residence for Queensland girls (Appendix Table 12-4).

### 5.2.3 Eczema/dermatitis

- According to the Mothers' and their Children's Health study, 14.7% of Queensland girls up to the age of 12 had eczema, dermatitis or any kind of skin allergy in 2016, which is lower than the prevalence in Australia girls (19.0%; data not shown).
- The prevalence of eczema, dermatitis or any kind of skin allergy was lower in areas outside the metropolitan area (Appendix Table 12-4).

## 6 Adolescent girls (13-17 years)

### 6.1 Bodyweight and health behaviours

#### 6.1.1 Overweight and obesity

- From the Queensland Preventive Health Survey, one in four (25%) adolescent girls (12-17 years) were in the overweight or obese category in 2020, an increase on 2015; [15].
- In 2017-18, the prevalence of overweight and obesity amongst adolescent girls in Queensland was slightly higher compared to Australian adolescent girls aged 12-15 years overall (17-20% Queensland vs 13% Australia) [15, 16].

### 6.1.2 Physical activity

The Australian Physical Activity and Sedentary Behaviour Guideline [17] recommends that adolescents aged up to 17 years do a minimum of 60 minutes of moderate to vigorous physical activity per day. Furthermore, muscle and bone-strengthening activities should be undertaken at least 3 times per week within the 60 minutes of daily activity.

- In 2020, one in four Queensland adolescent girls aged between 12-17 years were physically active [15].
- The most recent National Health Survey 2020-21 indicates that 8.6% of adolescent girls in Australia met the physical activity requirements [20], suggesting that adolescent girls in Queensland may be more physically-active.

### 6.1.3 Diet

The Australian Dietary Guidelines recommend that from the age of 12 years, people should consume a minimum of 2 serves of fruit and 5.5 serves of vegetables per day [18].

- In 2020, 62.4% Queensland adolescent girls aged 12-17 years met the dietary recommendations for fruit intake, however few (6.1%) had adequate vegetable intake [15].
- Amongst adolescent girls in Australia in 2020-21, 58% of girls aged 12-13 and 48% of girls aged 14-17 years met the fruit intake requirements whereas 9.2% and 7.7% met the vegetable intake requirements for the respective age groups [19].

## 6.2 Domestic violence and sexual assault

- In Queensland, four out of ten (39.6%) sexual offences are experienced by 10-19 year old females [9]; this is similar to the national statistic where 42.5% of female sexual assault victims were aged 10-17 in 2021 [10].

## 6.3 Sexual and reproductive health

- In 2020, 2.8% of mothers who gave birth in Queensland were under the age of 20 [21], compared to 1.8% for Australia overall [22].
- There has been a gradual decrease in teenage pregnancy in Queensland since 2000 when 6.6% of mothers who gave birth were under the age of 20 [21].
- Information is lacking on contraceptive use and other aspects of reproductive health for this age group.

## 6.4 Mental health

- In the Growing Up in Queensland 2020 survey, the percentage of adolescents (of both genders) who reported an emotional or mental health condition increased from one in five for 13-year olds to approximately one in three for 15-17 year olds [23].
- In 2020, 31% of adolescent girls in Australia aged 12-14 years and 46% of those aged 15-17 years reported high or very high levels of psychological distress [24].

Results from the second Australian Child and Adolescent Survey of Mental Health and Wellbeing conducted in 2015 by Telethon Kids Institute and The University of Western Australia [25] found that:

- the prevalence of anxiety disorders and major depressive disorder in Australian adolescents aged 12-17 years reported by parents and carers was 7.7% and 5.8%, respectively.
- 7.2% of 11-15 year old adolescent girls and 19.6% of 16-17 year olds met the diagnostic criteria for major depressive disorder, based on the responses of the adolescents themselves.
- 9.8% of 11-15 year old adolescent girls and 16.8% of 16-17 year olds reported self-harm in the previous 12 months.
- 12.1% of Australian adolescent girls obtained an abnormal score from the Strengths and Difficulties Questionnaire, which indicates significant risk of emotional problems, conduct disorders, hyperactivity and peer problems.

## 6.5 Suicide

- In Queensland, the rate of *suspected suicides* among adolescent girls aged 15-19 was 7.1 per 100,000 population in 2020 [26].
- For Australia, the rate of *suicide deaths* among adolescent girls aged 15-19 was 6.1 per 100,000 population in 2021 [27].

## 6.6 Substance use

- Although there are state-specific data on alcohol consumption in the National Health Survey 2017-18, there is a high margin of error that cautions against using the data.

# 7 Young women (18-44 years)

## 7.1 Sociodemographic factors

- From their mid-20s and through their 30s, 80% of women in Queensland and Australia participate in the labour force and this increases to 90% for women in their 40s (Appendix Figure 13-2).
- 20-25% of young women aged 20 reported that it was difficult or impossible to manage on income, with no differences between Queensland and Australia (Appendix Figure 13-3).
- As they move through their 20s, fewer women report difficulty managing on income, and the percentage remains steady through the peak childbearing years at approximately 13% before increasing slightly to 17% around their 40s (Appendix Figure 13-3).

## 7.2 Domestic violence and sexual assault

- 16.8% of young Queensland women aged 24-29 have been in a violent relationship, and 49.3% experienced partner abusive acts (including physical, sexual, harassment, and behavioural abuse), with 15.2% experienced partner abusive acts in the last 12 months.
- Young women living in metropolitan areas were more likely to experience violent relationship and partner abusive acts than those living in more rural and remote areas.

## 7.3 Bodyweight and health behaviours

### 7.3.1 Overweight and obesity

- From the 2020 Queensland Preventive Health Survey, 54% of women aged 18 and above are living with overweight and obesity [15], a prevalence similar to Australia as a whole [16]. This prevalence has increased over recent years, especially for young women.
- The percentage of women in Queensland aged 18 to 24 years in the overweight or obese BMI category increased from 28% in 2015 to 45% in 2020 [15].
- For women in both Queensland and Australia, the percentage in the obese category is higher for younger generations in their 20s (around 20%) compared with older generations at a similar age. (Appendix Figure 13-4).
- Not only does the prevalence of obesity among young adult women increase with age, but the rate of increase appears to be greater for younger women compared with older generations and reaches 30% by age 40 (Appendix Figure 13-5).
- Prevalence of obesity was greater among Queensland women living in rural and remote areas than those in metropolitan areas (Appendix Table 12-8; Figure 13-5).
- Differences in the type of housing and housing security was not associated with obesity (Appendix Table 12-8; Figure 13-5).

### 7.3.2 Physical activity

The Australian Physical Activity and Sedentary Behaviour Guidelines recommend that young adults aged 18 years and older do 2.5-5 hours of moderate intensity or 1.25-2.5 hours vigorous intensity physical activity (PA) per week and muscle-strengthening activities at least 2 times per week [17].

- In 2017-18, one in five young women in Queensland aged 18-24 years met the Australian Physical Activity and Sedentary Behaviour guidelines in 2014, which was comparable to the national percentage (21.6% vs 20.9%, respectively) [16].
- A higher percentage (over 60%) of young women in Queensland and Australia are meeting PA guidelines (aerobic only) than the previous generation at a similar age in 1996 (Appendix Figure 13-6).
- A lower percentage of Queensland women aged in their 40s meet the PA guidelines than Australian women in the same age group (Appendix Figure 13-7).

- Based on the percentage meeting guideline, physical activity appears to decrease through the peak reproductive years before returning close to previous levels (Appendix Figure 13-7).
- Young Queensland women meeting PA guidelines were more likely to have higher levels of educational attainment but there was no difference by area of residence (Appendix Table 12-11, Appendix Figure 13-8).

### 7.3.3 Tobacco use

- In 2017-18, approximately one in ten young women aged 18-24 years were current smokers in Queensland, which was similar to the national statistics [16].
- The current generation of young women are less likely to smoke than the previous generation (Appendix Figure 13-9).
- The percentage of current smokers declines with age, across all generations (Appendix Figure 13-9).
- Women who never smoked were more likely to have Year 12 or higher education attainment, whereas smoking status was not associated with area of residence (Appendix Table 12-14, Appendix Figure 13-10).

### 7.3.4 Alcohol consumption

For men and women, the Australian recommendation for alcohol intake is 'no more than 10 standard drinks a week and no more than 4 standard drinks on any one day' [28].

Patterns for alcohol consumption found in the National Health Survey 2017-18 [16] are:

- the percentage of young women reporting to have exceeded the alcohol guidelines on at least one occasion in the last 12 months was higher in Queensland than Australia overall, particularly amongst women aged 35-44 years (41.1% vs 33.8%, respectively).
- for women aged 35-44 years, risky drinking was more prevalent in Queensland than Australia-wide, with 14.9% found to have exceeded the lifetime risk guideline (i.e., consumed more than two standard drinks per day on average) compared with 10.7% for Australia.
- Alcohol consumption among young women is not associated with area of residence (Appendix Table 12-17)

## 7.4 Self-rated health

- More recent generations of young women who have just entered their 3<sup>rd</sup> decade of life (i.e., age 20 years) are less likely to report very good or excellent health than older generations when they were the same age. However, as they move through their 20s, the difference between generations becomes less apparent (Appendix Figure 13-4).
- Compared to young Australian women overall, the percentage of young Queensland women reporting very good or excellent health was lower, however the gap is smaller for newer generation of young women (Appendix Figure 13-4).



- Self-rated health of young Queensland women did not differ by area of residence (Appendix Table 12-5).

## 7.5 Sexual and reproductive health

### 7.5.1 Contraception use

- 32.8% of Queensland women aged 24-29 used oral contraceptive pills, 31.7% used condoms, and 22.3% using long-acting reversible contraception (LARC, including implant and intrauterine device).
- Young women living in regional and remote areas were less likely to use pills (25.3%) and LARC (12.7%) than women living in metropolitan areas.
- 18.8% of Queensland women aged 24-29 did not use any contraception, mainly due to pregnancy or trying to get pregnant (37.4%), not sexually active (22.2%), or concerned about health or side effects (17.5%).
- 41.9% of Queensland women aged 34-39 did not use any contraception.
- 23.2% of Queensland women aged 34-39 used oral contraceptive pills, 19% used condoms, and 12.4% using long-acting reversible contraception (LARC, including implant and intrauterine device).
- Queensland women aged 34-39 living in small rural towns or remotes areas were more likely to use pills (26.8%) but less likely to use LARC (11.2%) compared with women living in metropolitan areas.

### 7.5.2 Sexually transmissible infections

- In Queensland, the most common sexually transmissible infections (STIs) among women are chlamydia, gonorrhoea, and syphilis (in decreasing frequency) [29] and these tend to be higher than for women in Australia as a whole.
- In 2020, the notification rate for chlamydia in Queensland was 492.3 per 100,000 females [29] compared with 397.3 per 100,000 in Australia [30]. The equivalent figures for gonorrhoea in Queensland and Australia were 89.4 vs 73.0 per 100,000 females respectively, while for syphilis notifications they were 9.2 vs 7.9 per 100,000 females, respectively [30].

### 7.5.3 Gynaecological conditions and procedures

Two increasingly common, yet poorly understood gynaecological conditions affecting Australian women are polycystic ovary syndrome (PCOS) and endometriosis.

PCOS is characterised by a combination of hyperandrogenaemia (excessive male sex hormones) and ovarian dysfunction [31]. It is a complex disorder that is associated with poor cardiometabolic and mental health.

- Amongst 1 in 20 women from a later generation (born in 1989-95) had PCOS by the age of 20, whereas women born in 1973-78, 1 in 20 reported having PCOS at age 30; there was little difference between Queensland and Australia (Appendix Figure 13-11).
- For women in their early-to-mid 40s, approximately 1 in 10 have PCOS in Queensland and Australia (Appendix Figure 13-11).



Endometriosis is a condition where endometrial-like tissue is present outside the uterus and is associated with pelvic pain, infertility, and poor mental health [32].

- One in nine Australian women is diagnosed with endometriosis by the age of 44 years [33].
- Approximately 5% of Queensland and Australian women in their early-to-mid 20s report having endometriosis (Appendix Figure 13-11).
- By their early 40s, the cumulative prevalence of endometriosis is higher among Queensland women (17%) than Australian wide (11%) (Appendix Figure 13-11).
- One in ten (11.7%) Queensland women had undergone a hysterectomy or oophorectomy by age 43-48 (median age 46), with no clear difference by the area of residence.
- For Australian women, 1.3% experience premature menopause (before age 40 years) and 5.8% early menopause (between 40 and 44 years).

## 7.6 Maternal health

### 7.6.1 Fertility and infertility

- In 2020, the fertility rate was 87.9 births per 1,000 Queensland females aged 25-29 years, peaking at 107.6 births per 1,000 females aged 30-34, before dropping to 13.3 births per 1,000 females aged 40-44 [34].
- One in ten births in Queensland involved assisted conception for mothers aged 35-39 years, doubling to one in five for mothers aged 40-44 years in 2020 [21].

### 7.6.2 Pregnancy loss and stillbirth

- The percentage of women who experience miscarriage is similar between Queensland and Australia (Appendix Figure 13-12).
- The rate of stillbirth was 7.9 per 1,000 births in Queensland in 2020, which was similar to the national rate of 7.7 per 1,000 births [21, 22].

### 7.6.3 Pregnancy and birth

- Approximately one in five women in Queensland and Australia who gave birth in 2020 was in the obese category [22].
- 11.5% of Queensland women who gave birth in 2020 smoked at any time during the pregnancy, which is similar to Australian women overall (9.2%) [22].
- Of women in Australia (excluding New South Wales) who gave birth in 2020, Queensland had the highest percentage of those who consumed alcohol in the first 20 weeks of pregnancy (5.2%) with Northern Territory being the second highest (4.6%) [22].

- Delivery by caesarean section accounted for 36.9% of all births in Queensland in 2020, which is similar to the national statistic of 37.3% [22].
- The percentages of mothers who were induced in 2020 were similar for Queensland and Australia (33.4% vs 35.5%, respectively) [22].
- Of the Queensland mothers who gave birth in 2020, 5.9% had anaemia and 4.7% had a disorder of the thyroid; other conditions, such as asthma, pre-existing diabetes, and hypertension, affected less than 3% of mothers [21].
- The most common pregnancy complications experienced by Queensland mothers in 2020 were premature rupture of the membranes with labour onset within 24 hours (18.6%), previous uterine scar (18.5%), gestational diabetes (14.2%), and preterm labour (8.5%) [21]; the national prevalence of gestational and diabetes and preterm labour in 2020 is similar to Queensland [22].
- Preterm birth is not associated with area of residence within Queensland (Appendix Table 12-22, data not shown).
- In 2020, 7.5% of Queensland babies were born with low birth weight (<2500g), compared to 7.1% in Australia, and 7.2% were born preterm in 2020 (lower than the national prevalence of 8.3% [21, 22]).
- The rate of neonatal deaths (within the first 28 days of life) was 3.0 per 1,000 live births in Queensland in 2020, which was higher than that national rate of 2.5 per 1,000 live births [21, 22].
- For Queensland women in their mid-40s who had ever given birth:
  - 10% had experienced gestational diabetes.
  - 13% had hypertensive disorder during pregnancy
  - 16% had preterm birth
  - 42% had caesarean, of which 30% were elective caesarean and 12% were emergency caesarean
  - Caesarean rate was the highest rate in metropolitan area (45.3%) and the lowest rate in the more rural and remote areas (35.2%), especially elective caesarean (32.4% vs 24.0%).
  - The prevalence of women who have experienced caesarean is higher in Queensland than the rest of Australia.

#### 7.6.4 Breastfeeding

- In the 24 hours prior to hospital discharge, 72.3% of Queensland mothers who gave birth in 2020 breast-fed their baby and 21.1% provided mixed feeding (breast and infant formula), while 6.6% fed their baby only infant formula [21].

#### 7.6.5 Perinatal depression

- 6.7% of Queensland mothers who gave birth in 2020 had a depressive disorder [21].

## 7.7 Mental health

- More than one in five women in their mid-20s have depressive symptoms (based on their low mental health score), which is higher than the previous generation at the same age who have remained at around 15% out to their mid-40s (Appendix Figure 13-13).
- Mean mental health scores did not differ by area of residence for young Queensland women (Appendix Table 12-20, data not shown).
- In 2017-18, approximately one in five young women aged 18-24 reported high or very high psychological distress, decreasing to one in ten for women aged 35-44 in both Queensland and Australia [16].

Findings from the National Study on Mental Health and Wellbeing 2020-21 [35] show that:

- The percentage of young Australian women with anxiety disorders (experienced for at least 12 months) declines with age, with 41.3% (aged 16-24 years), 28.5% (25-34 years), and 18.1% (35-44 years).
- For affective disorders (including depressive disorders and bipolar disorder), the prevalence was highest amongst 16-24 year old women (19.0%) and again decreased with age.
- 5-7% of Australian women aged 16-34 years had a 12-month substance use disorder; by 35-44 years, the percentage fell to 0.5%.
- 5.6% of Australian women age 16-34 years experienced binge-eating in the last 12 months, however other conditions of disordered eating were not determined.

### 7.7.1 Suicide

- In Queensland, the rate of suspected suicides in 20-24 year old women was 8.9 per 100,000 population in 2020 [26].
- In Queensland, the rate of suspected suicides among young women in 2020 was highest (11.9 per 100,000 population) for 30-34 year olds and lowest (6.1 per 100,000 population) for 35-39 year olds [26]. These are similar to the figures for suicide deaths of women in Australia [27].

## 7.8 Chronic conditions

### 7.8.1 Asthma

- Around one in four (26%) of Queensland women in their 20s report ever having a history of asthma, which is about the same as the previous generation at the same age. This increased to 32% of women by their 40s. These prevalences also appear to be higher and rising at a faster rate than was the case 25 years ago for women in their mid-40s.

The National Health Survey 2020-21 reported that [36]:

- Approximately 1 in 10 Australian women aged 15-44 had asthma (currently) with little variation between 10-year age groups.
- People born in Australia were twice as likely to have asthma than those born overseas.

- People living in inner regional areas were slightly more likely to have asthma than those living in outer regional or remote areas.

### 7.8.2 Diabetes

- The prevalence of diabetes amongst young women in Queensland and Australia rises from low levels to around 5% of women in their 40s (Appendix Figure 13-14).
- For women aged 24-29 years, diabetes prevalence did not differ by area of residence or level of educational attainment (Appendix Table 12-18, data not shown).

### 7.8.3 Heart disease

- The prevalence of heart disease is very low amongst young women in Queensland and Australia and remains low as women enter their 5<sup>th</sup> decade of life (Appendix Figure 13-15).

### 7.8.4 Musculoskeletal conditions

- Around 20% of women in their 20s report often having back pain, a higher prevalence than seen in the previous generation at this age (12%) and close to rates reported by women in their 50s (Appendix Figure 13-16).
- Approximately 1 in 10 Queensland women in their early 40s have reported ever having arthritis (Appendix Figure 13-17).

## 7.9 Health service use

- Through their 30s and early 40s, around 10-15% of Queensland women use GP services 7 or more times per year (Appendix Figure 13-18).
- Over 80% of women in their mid-40s report good to excellent access to a female doctor with 60% reporting very good or excellent access, which is similar to most other states and territories (Appendix Figure 13-19).
- Young women living in large towns or more remote areas of Queensland were more likely to report fair or poor access to a female GP than women living in metropolitan areas and regional centres (Appendix Table 12-24, Appendix Figure 13-20 and Figure 13-21).
- In their mid-30s to early 40s, around 45% to 50% of women in Queensland have had at least one specialist visit in the previous year (Appendix Figure 13-22).
- More than 70% of Queensland women in their mid-40s reported good to excellent access to specialists (Appendix Figure 13-23)
- 60% or less of women in their mid-40s living in large towns or more remote areas reported good or excellent access to specialists compared to approximately 80% in metropolitan centres (Appendix Table 12-26, Appendix Figure 13-24).
- From the mid-to-late 20s, a slightly higher percentage of Queensland women had at least one hospital visit (Appendix Figure 13-25).

## 8 Mid-aged women (45-64 years)

### 8.1 Sociodemographic factors

- Labour force participation over the previous 12 months is over 90% for Queensland women currently in their mid to late 40s, which compares with around 40% of women in their early 60s (Appendix Figure 13-2).
- Managing on income appears to become easier with age, with around 10% of Queensland women currently in their mid to late 40s reporting they have difficulty in managing on their income, this compares with similar percentage for those in their early to mid-60s (Appendix Figure 13-3).
- 15% of women in their mid to late 40s are in a carer role, with over half caring for a parent or parent-in-law, and a third are caring for a child.

### 8.2 Domestic violence and sexual assault

- 17.7% of mid-aged Queensland women aged 43-48 have been in a violent relationship, and 45.7% experienced partner abusive act (including physical, sexual, harassment, and behavioural abuse), with 12.0% experienced partner abusive act in the last 12 months.
- Women living in metropolitan, regional centres, or large/medium towns were more likely to experience partner abusive acts than women living in small towns or remote areas, especially physical and emotional abuse.
- Among women who experienced partner abusive acts, emotional abuse was most common (41.7%), followed by physical abuse (28.4%), harassment abuse (25.7%), and sexual abuse (13.6%), with 11.5%, 3.9%, 3.6%, and 0.8% of women experienced these in the last 12 months, respectively.

### 8.3 Bodyweight and health behaviours

#### 8.3.1 Overweight and obesity

- The percentage of women with obesity increased from 15% in their late 40s to a peak of 30% in their early 60s; there is little difference in this trend between Queensland and Australian women (Appendix Figure 13-5).
- For women in their mid-to-late 40s, obesity is associated with lower education levels and housing other than home ownership, but not area of residence (Appendix Table 12-9, Appendix Figure 13-6).

#### 8.3.2 Physical activity

- The percentage of mid-aged women who did sufficient physical activity increased from <50% in their early 50s to approximately 60% by their early 60s (Appendix Figure 13-7).

- For Queensland women in their mid-to-late 40s, meeting PA guidelines was associated with having higher education levels, but not with area of residence (Appendix Table 12-12, Appendix Figure 13-8).

### 8.3.3 Tobacco use

- The prevalence of smoking decreased steadily with age among mid-aged women in Queensland, from 18% when in their late 40s down to 8% by their early 60s (Appendix Figure 13-9).
- As was the case for young women, smoking was associated with lower levels of education (Year 12 or lower), but not with area of residence (Appendix Table 12-15, Appendix Figure 13-10).

### 8.3.4 Alcohol consumption

- In 2017-18, 43.8% of women aged 45-54 in Queensland exceeded the NHMRC recommendation of 4 or less standard drinks on at least one occasion in the last 12 months compared to 34.4% of Australian women [16].
- For 55-64 year old women, the percentage who exceeded the alcohol guidelines on at least one occasion in the last 12 months was similar to women Australia wide (24.0% vs 21.9%, respectively) [16].
- Alcohol consumption amongst women in their mid-to-late 40s is not associated with area of residence (Appendix Table 12-17).

## 8.4 Self-rated health

- Approximately 1 in 2 mid-aged women reported excellent or very good health and there was little difference between Queensland and Australia (Appendix Figure 13-4).
- The proportion of women who reported excellent or very good health did not differ by area of residence within Queensland (Appendix Table 12-6).

## 8.5 Menopausal Transition

- The average age of menopause for Queensland women is 50.8 years.
- For women currently aged 43-48 years
  - One in ten (10%) have undergone a hysterectomy or oophorectomy, one in four women (23%) are experiencing perimenopause, and 7.4% are already postmenopausal.
  - Nearly half (48%) of women aged 43-48 years reported experiencing vasomotor symptoms (VMS; hot flushes and/or night sweats), with 29% having symptoms often/sometimes and 34% finding them bothersome (a little/a lot).
  - Of those with symptoms often/sometimes, one in four (23%) sought help. This prevalence of VMS symptoms is similar to that found for Australian women.
  - Among women who often experienced VMS, 11.9% were taking HRT (compared with 1.8% in women who never experienced VMS).

- For women aged 59-64 years
  - More than 95% of women had reached menopause (either naturally or surgically), 62% experienced natural menopause, and 34% had undergone a hysterectomy and/or bilateral oophorectomy.
  - The trajectory or profile of symptoms occurs throughout the 50s and early 60s - as shown for hot flushes in Figure 13-26, with around 9% of Australian women aged 59-64 still experiencing hot flushes.

## 8.6 Mental health

- The percentage of women with depressive symptoms declined slightly from 10% in their early 50s to 8% in their 60s (Appendix Figure 13-13).
- Around one in seven (15%) of mid-aged women in Queensland experienced psychological distress in 2017-18 [16].
- In 2017-18, approximately 18% of Australian women aged 45-64 years had an anxiety-related condition and 17% had a depressive disorder [37].

## 8.7 Chronic conditions

### 8.7.1 Diabetes

- The percentage of mid-aged women in Queensland with diabetes increases rapidly from the late 40s, with the prevalence more than doubling to reach one in ten by their early sixties, closely matching the increasing prevalence for women in Australia (Appendix Figure 13-14).
- For women aged 43-48, diabetes prevalence does not differ by area of residence or level of educational attainment (Appendix Table 12-18, data not shown).

### 8.7.2 Heart disease

- The prevalence of heart disease follows a similar rising trend to diabetes, with the prevalence among mid-aged women in Queensland rising to over 10% by their early 60s (Appendix Figure 13-15).
- The prevalence of heart disease among Queensland women in their mid-to-late 40s is not associated with education level or area of residence (Appendix Table 12-19, data not shown).



### 8.7.3 Musculoskeletal conditions

- The prevalence of arthritis rises rapidly for mid-age women in Queensland, with the rate doubling in their 50s from around one in four to over 50% of women in their 60s (Appendix Figure 13-17).

## 8.8 Cancer and cancer screening

- The age-standardised cancer rate has steadily increased since 1982 with higher rates amongst women in Queensland than Australian women overall [38].
- The top 5 most common cancers diagnosed in Queensland females in 2019 were breast cancer 3763, melanoma 1853, colorectal cancer 1516, lung cancer 1228 and lymphoma 603 [39].
- In 2018, the incidence of cancer for Queensland women was 470.8 per 100,000 compared with 433.3 per 100,000 population for Australian women, and a rate higher than all other states and territories [38].
- The incidence rate of most cancers were similar between women in Queensland and Australia in 2019, with the exception of melanoma (61.5 vs 43.9 per 100,000 population), lung cancer (43.7 vs 36.9 per 100,000), and colorectal cancer (50.8 vs 45.6 per 100,000) [38].
- The breast cancer relative survival rate is 92% for Queensland women, for melanoma 97%, and colorectal cancer 73% [39].
- The participation rate for the National Bowel Cancer Screening Program in 2019-2020 for Queensland women aged 50-54 years was 32.1%, increasing to 46.3% for 60-64 year old women, which is similar to the national rate of 35.4% for 50-54 year old women and 49.1% for 60-64 year old women [40].

## 8.9 Health services use

- Approximately 15% of mid-aged women in Queensland used GP services 7 or more times per year; (Appendix Figure 13-18).
- Approximately 80% of Queensland women aged 43-48 reported good to excellent access to a female GP, which is similar to most other states and territories (Appendix Figure 13-19).
- Women aged in their mid-to-late 40s and living outside the metropolitan Queensland areas were less likely to report very good or excellent access to a female GP (Appendix Table 12-24, Appendix Figure 13-20).
- For mid-aged women in Queensland, the use of specialist services over the previous 12 months increased with age to over 50% by their early 60s, following along a similar increase seen in Australia (Appendix Figure 13-22).
- In Queensland, approximately 70% of women aged in their mid-to-late 40s reported good to excellent access to specialists, which is similar to other states and territories except Northern Territory and Tasmania where access was rated worse (Appendix Figure 13-23).



- The proportion of Queensland women in their mid-to-late 40s who rated their level of access to specialists as fair or poor (more than 20%) was higher for those living outside of the metropolitan areas (Appendix Table 12-27, Figure 13-24).
- By their early 60s, around one in four mid-aged women in Queensland have had at least one hospital visit in the previous 12 months (Appendix Figure 13-25).

## 9 Older women (65 years and over)

### 9.1 Sociodemographic factors

- Approximately one in ten women in Queensland have difficulty managing on their income in their mid-60s, declining to one in twenty women (around 5%) in their 80s (Appendix Figure 13-3).
- 22.5% of Queensland women aged 68-73 years were carers for someone who either lives with them or lives elsewhere.
- Older women living in small towns or remote areas were more likely to be carers (26.8%).

### 9.2 Domestic violence

- 16.3% of older Queensland women aged 68-73 have experienced domestic violence, with <1% in a violent relationship in the last 12 months.
- The prevalence of older women around the age of 70 who have experienced domestic violence did not differ by area of residence.

### 9.3 Bodyweight and health behaviours

#### 9.3.1 Overweight and obesity

- More than one in four Queensland women in their mid-60s to early 70s is living with obesity. This is almost twice the rate or around a steady 15% of older women in the obesity category from the previous generation (Appendix Figure 13-5).
- Older women in Queensland who do not own their own homes are more likely to be in the obese category, however area of residence and education level are not associated (Appendix Table 12-10, Appendix Figure 13-6).

#### 9.3.2 Physical activity

- Around 60% of Queensland women currently in their mid-60s to early 70s meet PA guidelines, whereas for the previous generation this percentage declines from around 40% of women in their mid-70s to 25% of those in their 80s (Appendix Figure 13-7).
- Queensland women living outside of metropolitan areas are more likely to have a sedentary lifestyle, with one in four of those in small rural towns or remote areas having PA levels in the sedentary category (Appendix Table 12-13, Appendix Figure 13-8).

- Generally, older women in Queensland with higher educational levels tend to have higher physical activity levels (Appendix Table 12-13, Appendix Figure 13-8).

### 9.3.3 Tobacco use

- The prevalence of smoking amongst women in their late 60s is 5% and declines further with age (Appendix Figure 13-9).
- No differences in smoking prevalence were associated with area of residence or education levels among older Queensland women (Appendix Table 12-16, Appendix Figure 13-10).

### 9.3.4 Alcohol consumption

- In 2017-18, approximately 1 in 10 Queensland women aged 65 years and older exceeded the recommendations for alcohol intake [16].
- The percentage of older Queensland women who meet the guidelines on limiting alcohol consumption is not associated with area of residence (Appendix Table 12-17).

## 9.4 Self-rated health

- The percentage of Queensland women who reported excellent or very good health declines from approximately one in three women in their early 70s to one in five women in their 80s, that reflects a similar decline in self-rated health for older women in Australia (Appendix Figure 13-4).
- Older Queensland women living in large, medium, or small towns or remote areas are less likely to report very good or excellent health than those in metropolitan areas (Appendix Table 12-7).

## 9.5 Mental health

- The mental health score remains steady at around 7% with age amongst older women (Appendix Figure 13-13).
- Mental health scores did not differ by area of residence for older women in Queensland (Appendix Table 12-20, data not shown).

## 9.6 Chronic conditions

### 9.6.1 Diabetes

- The prevalence of diabetes increases rapidly with age, with around 15% of Queensland women in their late 60s living with diabetes. This is higher than the previous generation even aged in their 70s, and who in their 80s have a prevalence of around 20% (Appendix Figure 13-14).

- For Queensland women aged 68-73, diabetes prevalence did not differ by area of residence, whereas older women with a university degree are less likely to have diabetes (Appendix Table 12-18, data not shown).

### 9.6.2 Heart disease

- The prevalence of heart disease increases rapidly with age. For older women in Queensland, heart disease doubles from around 20% for those aged in their early 70s to over 40% by their late 80s (Appendix Figure 13-15).
- The prevalence of heart disease among older Queensland women is not associated with education level or area of residence (Appendix Table 12-19, data not shown).

### 9.6.3 Musculoskeletal conditions

- Arthritis increases with age, with almost three in four women in Queensland reporting ever having arthritis by their late 80s (Appendix Figure 13-17).
- More than 50% of the women currently in their late 60s report having arthritis, whereas the previous generation did not report this prevalence until their 80s (Appendix Figure 13-17).

### 9.6.4 Alzheimer's disease and dementia

- Dementia is the leading cause of death for women aged 75 years and over in Queensland [41].
- In 2019, the age-standardised death rate due to dementia was 45 per 100,000 population for Queensland women [42].

## 9.7 Health services use

- Around 17% of Queensland women in their early 70s have 7 or more GP visits in the previous 12 months (Appendix Figure 13-18).
- Over 80% of older Queensland women report good to excellent access to a female GP, which similar to most states and territories (Appendix Figure 13-19).
- Older women who live outside of metropolitan areas in Queensland are less likely to report good to excellent access to a female GP (Appendix Table 12-25, Appendix Figure 13-20).
- The use of specialist services in the previous 12 months by older Queensland women increases with age to over 60% of those aged in their 70s (Appendix Figure 13-22).
- Approximately 90% of women aged 68-73 reported good to excellent access to a specialist and this was consistent with most states and territories (Appendix Figure 13-23).
- Although older women living outside the metropolitan and regional centres were less likely to report very good or excellent access to specialists, approximately 80% of those

living in these areas reported at least good access to a specialist (Appendix Table 12-28, Figure 13-24).

- Around one in three Queensland women in their early 70s reported at least one hospital visit in the previous 12 months (Appendix Figure 13-25).

## 10 Priority populations among women in QLD

### 10.1 Women living in regional, rural, and remote Queensland

- Level of educational attainment differs by area of residence in Queensland for mid-aged and older women (Appendix Table 12-30; Table 12-31)
- Mid-aged women living in more rural and remote areas of Queensland were more likely to gain trade or certificate qualifications and less likely to have a university degree (Appendix Table 12-30)
- There is a greater proportion of women with less than Year 12 qualifications amongst older Queensland women living in medium or large towns than other areas (Appendix Table 12-31)
- Security of housing does not differ with area of residence for mid-aged and older Queensland women, however there is a greater proportion of home ownership among young women living in regional centres or medium or large towns (Appendix Table 12-32, Table 12-33, Table 12-34).
- Ability to manage on income varied by area of residence amongst older Queensland women, but not for young and mid-aged women. (Appendix Table 12-35, Table 12-36, Table 12-37).
- Suicide amongst Queensland women in 2020 is associated with increasing remoteness from major centres; age-standardised rates of suspected suicide was highest in outer regional Queensland (8.5 per 100,000 women) and lowest in major cities of Queensland (6.1 per 100,000 women) [26].

### 10.2 Aboriginal and Torres Strait Islander women.

- Since 2011, the percentage of young Aboriginal and Torres Strait Islander women aged 20-24 who had completed Year 12 or equivalent increased from 51.8% to 70% in 2021; furthermore, attendance of university or other higher education increased from 8.6% to 13.9% [43].
- In 2021, the fertility rate for Aboriginal and Torres Strait Islander adolescents aged 15-19 years is more than 40 per 1000 women, approximately four times higher than non-Indigenous adolescents [44].
- The fertility rate for Aboriginal and Torres Strait Islander women is higher than non-Indigenous women until age 30, with more than 140 births per 1,000 women for those aged 20-29 years [44].

- Aboriginal and Torres Strait Islander females are 6.5-times more likely to report an assault than a non-Indigenous female [9].
- In 2021, the rate of syphilis notifications was approximately 19-fold higher amongst Aboriginal and Torres Strait Islander females than non-Indigenous females in Queensland [29]; however the rate has been on a downward trajectory since 2017.
- Suicide rates for Aboriginal and Torres Strait Islander girls and women are approximately three-fold higher than for non-Indigenous girls and women (14.0 vs 3.1 per 100,000 persons, respectively) [26].
- As observed in Australia overall, the burden from chronic diseases (e.g., musculoskeletal problems, cardiovascular disease, and respiratory disorders) are over 1.5-fold greater amongst Aboriginal and Torres Strait Islander women than non-Indigenous in 2018 [41, 45, 46].
- Compared with Aboriginal and Torres Strait Islander women in other states and territories, the burden of disease for Aboriginal and Torres Strait Islander women in Queensland was similar or lower [46].

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## 12 Appendix Tables

Chi-square tests were used to determine the difference between groups for each health outcome. The tables in this section shows significant differences ( $p < 0.01$ ) in health outcomes by sociodemographic factors whereby an upward ( $\uparrow$ ) and downward ( $\downarrow$ ) indicates a greater or smaller population compared to the reference group marked "0".

**Table 12-1 Distribution of body mass index categories in girls aged 2-12 years categorised by area of residence, Mothers' and their Children's Health study.**

	Underweight	Normal weight	Overweight/obese
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-2 Meeting of physical activity guidelines in girls aged 5-12 years categorised by area of residence, Mothers' and their Children's Health study.**

	Met physical activity guidelines
Area of residence	
Metropolitan	0
Regional centre	-
Large/medium town	-
Small town/remote	-

**Table 12-3 Dietary consumption of different food types by Australian girls aged 2-12 years categorised by area of residence, Mothers' and their Children's Health study.**

Food/beverage type	Fruit and vegetables	Sweetened beverages	Fat from dairy	Non-core foods*
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	-	-	-	$\uparrow$
Small town/remote	-	-	-	$\uparrow$

\*Non-core foods are those not in the 5 food groups recommended by the Australian Dietary Guidelines.

**Table 12-4 Common conditions in Queensland girls aged 0-12 categorised by area of residence, Mothers' and their Children's Health study.**

	<b>Asthma</b>	<b>Eczema/ dermatitis*</b>	<b>Anxiety</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	↓	-
Large/medium town	-	↓	-
Small town/remote	-	-	-

\*Includes any type of skin allergy.

**Table 12-5 Distribution of self-rated health in Queensland women in young Queensland women aged 24-29 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/ very good</b>	<b>Good</b>	<b>Fair/poor</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-6 Distribution of self-rated health in Queensland women in Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/ very good</b>	<b>Good</b>	<b>Fair/poor</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-7 Distribution of self-rated health in Queensland women in Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	↓	↑	-
Small town/remote	↓	-	-

**Table 12-8 Sociodemographic factors in the distribution of body mass index categories in young Queensland women aged 24-29 years, Australian Longitudinal Study on Women's Health.**

	<b>Normal weight</b>	<b>Overweight</b>	<b>Obese</b>
<b>Area of residence</b>			
Metropolitan	0	0	0
Regional centre	↓	-	↑
Large/medium town	↓	-	↑
Small town/remote	↓	-	↑
<b>Highest educational qualification</b>			
<Year 12	0	0	0
Year 12	↑	↓	-
Trade/cert/dip	-	-	-
University	↑	-	↓
<b>Housing security</b>			
Own home	0	0	0
Rental	-	-	-
Other	-	-	-

**Table 12-9 Sociodemographic factors in the distribution of body mass index categories in Queensland women aged 43-48 years, Australian Longitudinal Study on Women's Health.**

	<b>Normal weight</b>	<b>Overweight</b>	<b>Obese</b>
<b>Area of residence</b>			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
<b>Highest educational qualification</b>			
<Year 12	0	0	0
Year 12	-	-	↑
Trade/cert/dip	-	-	↑
University	↑	-	-
<b>Housing security</b>			
Own home	0	0	0
Rental	↓	-	↑
Other	↓	↑	↑

**Table 12-10 Sociodemographic factors in the distribution of body mass index categories in Queensland women aged 59-64 years, Australian Longitudinal Study on Women's Health.**

	<b>Normal weight</b>	<b>Overweight</b>	<b>Obese</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
Highest educational qualification			
<Year 12	0	0	0
Year 12	-	-	-
Trade/cert/dip	-	-	-
University	-	-	-
Housing security			
Own home	0	0	0
Rental	-	-	↑
Other	↓	-	↑

**Table 12-11 Sociodemographic factors in the distribution of physical activity categories in young Queensland women aged 24-29 years, Australian Longitudinal Study on Women's Health.**

	<b>Nil/sedentary</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	-	-	-	-
Small town/remote	-	-	-	-
Highest educational qualification				
<Year 12	0	0	0	0
Year 12	↓	-	-	↑
Trade/cert/dip	↓	-	-	↑
University	↓	-	-	↑

**Table 12-12 Sociodemographic factors in the distribution of physical activity categories in Queensland women aged 43-48 years, Australian Longitudinal Study on Women's Health.**

	<b>Nil/sedentary</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	-	-	-	-
Small town/remote	-	-	-	-
Highest educational qualification				
<Year 12	0	0	0	0
Year 12	-	↓	-	-
Trade/cert/dip	-	↓	-	↑
University	↓	↓	-	↑

**Table 12-13 Sociodemographic factors in the distribution of physical activity categories in Queensland women aged 68-73 years, Australian Longitudinal Study on Women's Health.**

	<b>Nil/sedentary</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↑	-	-	-
Small town/remote	↑	-	-	↓
Highest educational qualification				
<Year 12	0	0	0	0
Year 12	-	-	-	-
Trade/cert/dip	-	-	-	-
University	↓	-	-	↑

**Table 12-14 Comparisons of smoking status by sociodemographic factors amongst young Queensland women aged 24-29 years, Australian Longitudinal Study on Women's Health.**

	Never smoked	Ex-smoker	Current smoker
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
Highest educational qualification			
<Year 12	0	0	0
Year 12	↑	↓	-
Trade/cert/dip	↑	↓	-
University	↑	↓	↓

**Table 12-15 Comparisons of smoking status categories by sociodemographic factors amongst Queensland women aged 43-48 years, Australian Longitudinal Study on Women's Health.**

	Never smoked	Ex-smoker	Current smoker
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
Highest educational qualification			
<Year 12	0	0	0
Year 12	-	-	-
Trade/cert/dip	-	-	-
University	↑	-	↓

**Table 12-16 Comparisons of smoking status categories by sociodemographic factors amongst Queensland women aged 59-64 years, Australian Longitudinal Study on Women's Health.**

	Never smoked	Ex-smoker	Current smoker
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
Highest educational qualification			
<Year 12	0	0	0
Year 12	-	-	-
Trade/cert/dip	-	-	-
University	-	-	-

**Table 12-17 Distribution of women who met alcohol consumption guidelines by area of residence, Australian Longitudinal Study on Women's Health.**

	24-29 years	43-48 years	68-73 years
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-18 Sociodemographic factors associated with diabetes prevalence in Queensland women, Australian Longitudinal Study on Women's Health.**

Age	24-29 years	43-48 years	68-73 years
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-
Highest educational qualification			
<Year 12	0	0	0
Year 12	-	-	-
Trade/cert/dip	-	↓	-
University	-	↓	↓

**Table 12-19 Sociodemographic factors associated with heart disease amongst mid-aged and older Queensland women, Australian Longitudinal Study on Women's Health.**

	43-48 years	68-73 years
Area of residence		
Metropolitan	0	0
Regional centre	-	-
Large/medium town	-	-
Small town/remote	-	-
Highest educational qualification		
<Year 12	0	0
Year 12	-	-
Trade/cert/dip	-	-
University	-	-

**Table 12-20 Comparison of mental health scores by area of residence for Queensland women, Australian Longitudinal Study on Women's Health.**

	24-29 years	43-48 years	68-73 years
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-21 Distribution of women who have experienced domestic violence by area of residence, Australian Longitudinal Study on Women's Health.**

	24-29 years	43-48 years	68-73 years
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-22 Percentage of women born in 1989-95 who have ever had a preterm birth categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	Preterm birth
Area of residence	
Metropolitan	0
Regional centre	-
Large/medium town	-
Small town/remote	-



**Table 12-23 Factors associated with the level of access to a female GP for young Queensland women aged 24-29 years, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↓	-	↑	-
Small town/remote	↓	-	↑	-

**Table 12-24 Level of access to a female GP for mid-aged Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↓	↑	↑	-
Small town/remote	↓	-	↑	-

**Table 12-25 Level of access to a female GP for older Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↓	↑	↑	-
Small town/remote	↓	-	↑	-

**Table 12-26 Level of access to medical specialists for young Queensland women aged 24-29 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↓	↑	↑	-
Small town/remote	↓	↑	↑	-

**Table 12-27 Level of access to medical specialists for mid-aged Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	↓	-	↑	-
Large/medium town	↓	↑	↑	-
Small town/remote	↓	-	↑	-

**Table 12-28 Level of access to medical specialists for older Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Excellent/very good</b>	<b>Good</b>	<b>Fair/poor</b>	<b>Don't know</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↓	↑	↑	-
Small town/remote	↓	↑	↑	-

**Table 12-29 Highest educational attainment by Queensland women aged 24-29 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>&lt;Year 12</b>	<b>Year 12</b>	<b>Trade/cert*</b>	<b>University</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	-	-	-	-
Small town/remote	-	-	-	-

\*Trade, certificate, and diploma

**Table 12-30 Highest educational attainment by Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>&lt;Year 12</b>	<b>Year 12</b>	<b>Trade/cert*</b>	<b>University</b>
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	-	-	↑	↓
Small town/remote	-	-	↑	↓

\*Trade, certificate, and diploma

**Table 12-31 Highest educational attainment by Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<Year 12	Year 12	Trade/cert*	University
Area of residence				
Metropolitan	0	0	0	0
Regional centre	-	-	-	-
Large/medium town	↑	↓	↓	-
Small town/remote	-	-	-	-

\*Trade, certificate, and diploma

**Table 12-32 Housing type of Queensland women aged 24-29 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	Owned	Rented	Other
Area of residence			
Metropolitan	0	0	0
Regional centre	↑	↓	-
Large/medium town	↑	-	-
Small town/remote	-	-	-

**Table 12-33 Housing type of Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	Owned	Rented	Other
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-34 Housing type of Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	Owned	Rented	Other
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

**Table 12-35 Ability to manage on income for Queensland women aged 24-29 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	Impossible/difficult	Sometimes difficult	Not too bad/easy
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

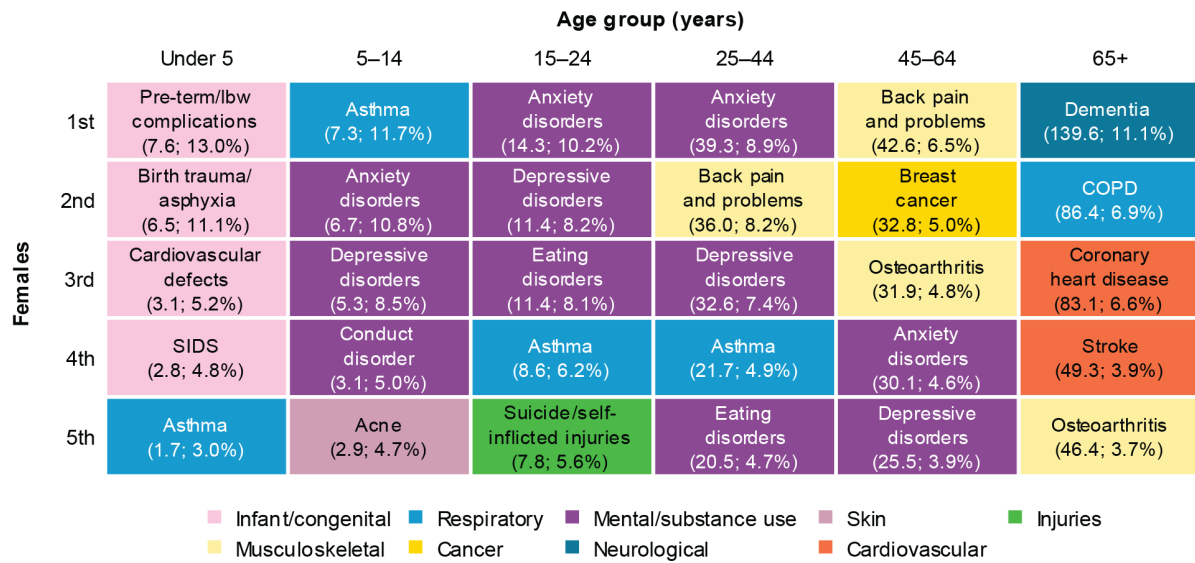
**Table 12-36 Ability to manage on income for Queensland women aged 43-48 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Impossible/difficult</b>	<b>Sometimes difficult</b>	<b>Not too bad/easy</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	-	-	-
Small town/remote	-	-	-

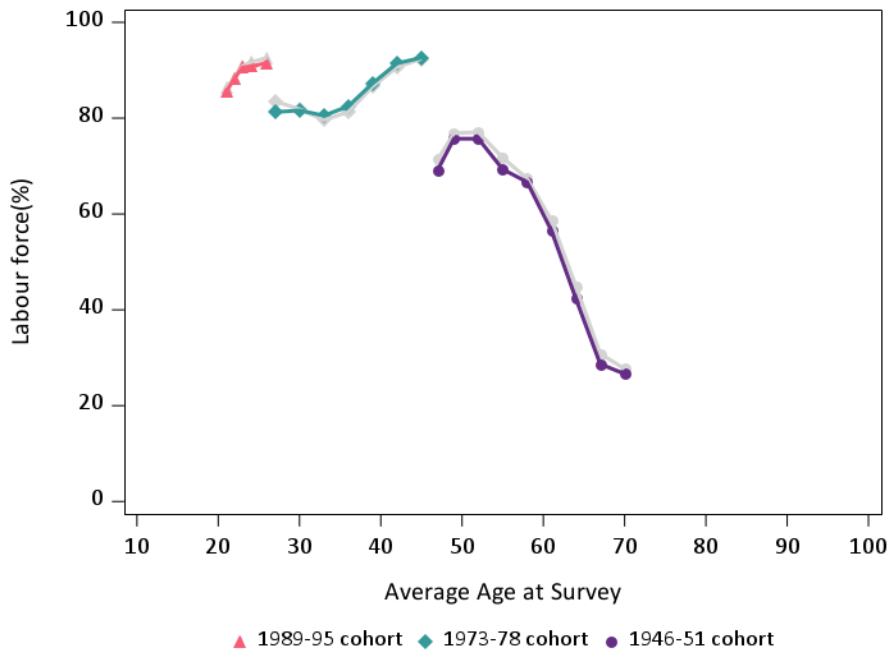
**Table 12-37 Ability to manage on income for Queensland women aged 68-73 years categorised by area of residence, Australian Longitudinal Study on Women's Health.**

	<b>Impossible/difficult</b>	<b>Sometimes difficult</b>	<b>Not too bad/easy</b>
Area of residence			
Metropolitan	0	0	0
Regional centre	-	-	-
Large/medium town	↑	-	↓
Small town/remote	-	-	-

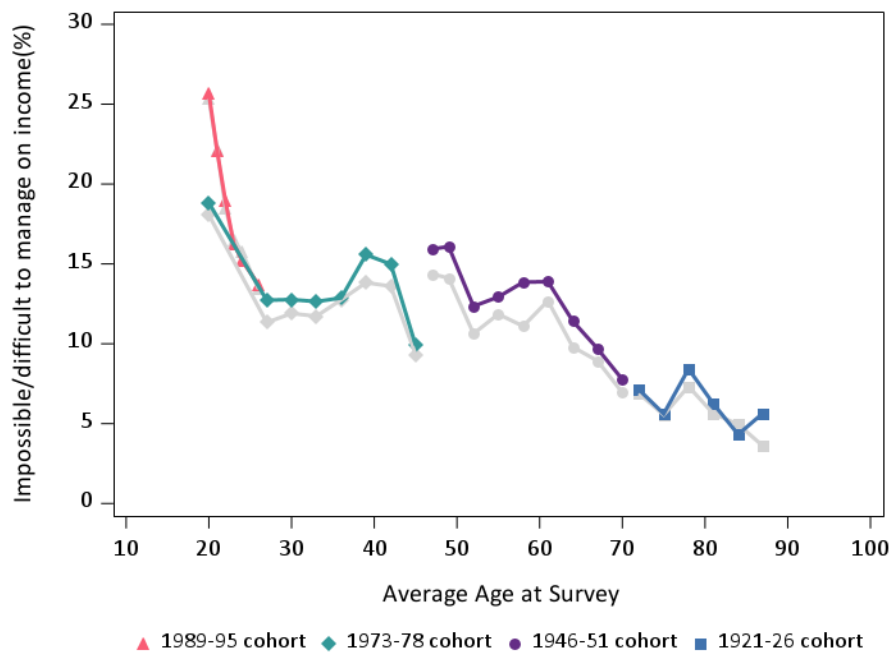
# 13 Appendix Figures



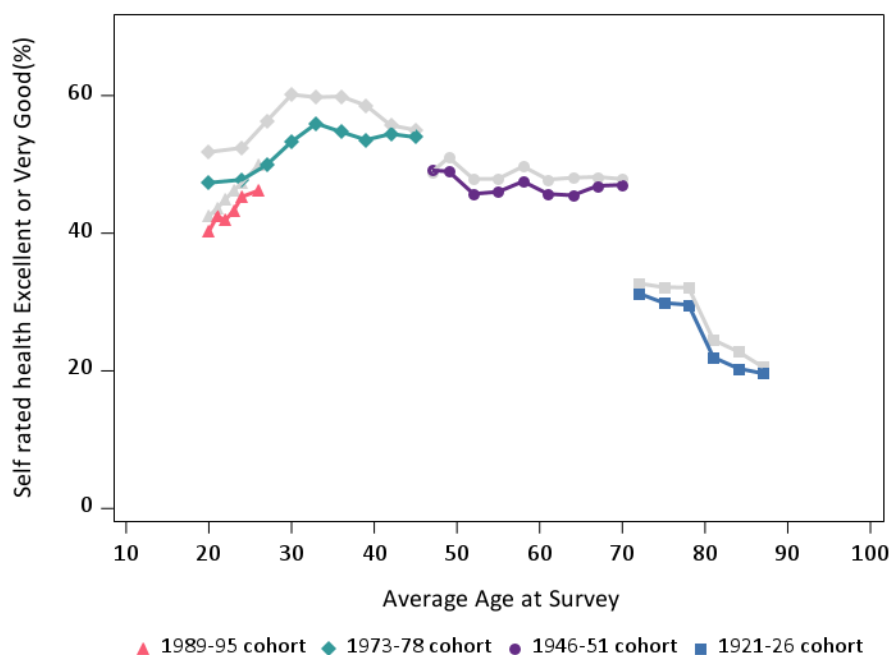
**Figure 13-1 Leading causes of total burden (YLD '000; proportion %) for females by age group, Australian Burden of Disease Study 2022 [2].**



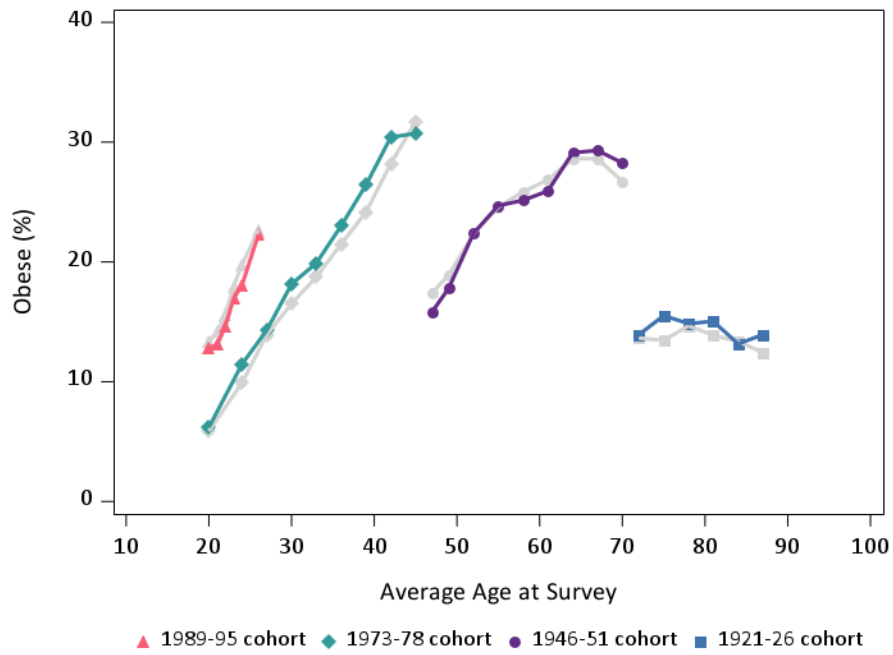
**Figure 13-2 Percentage of women in QLD and Australia who have participated in the labour force in the previous 12 months, Australian Longitudinal Study on Women’s Health.**



**Figure 13-3 Percentage of women in QLD and Australia who reported difficulty managing on income across the life course, Australian Longitudinal Study on Women’s Health.**

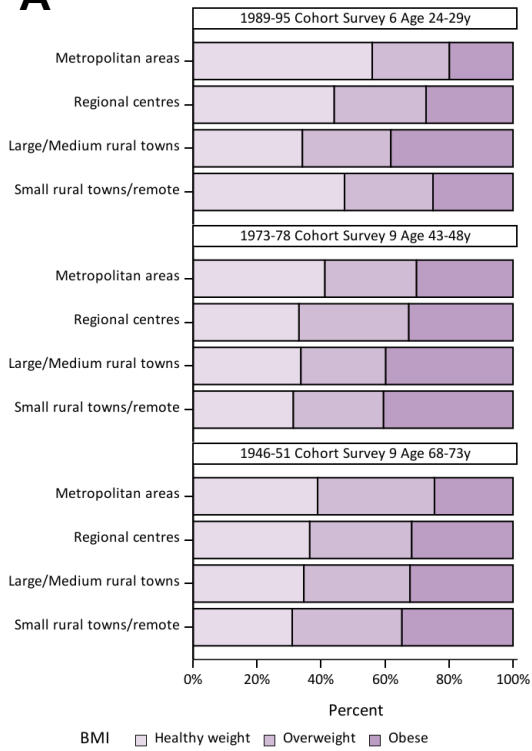


**Figure 13-4 Percentage of women in Queensland (coloured lines) and Australia (grey line) who reported excellent or very good health across the life course, Australian Longitudinal Study on Women’s Health.**

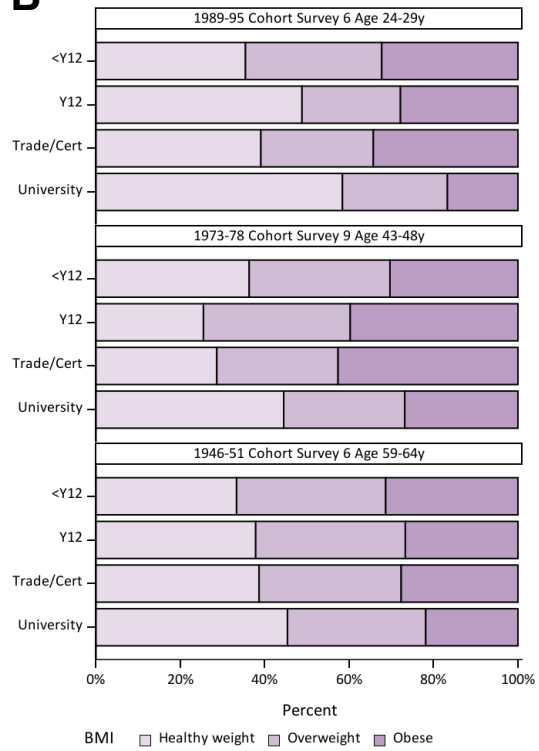


**Figure 13-5 Percentage of women living with obesity in Queensland (coloured lines) and Australia (grey line) across the life course, Australian Longitudinal Study on Women's Health.**

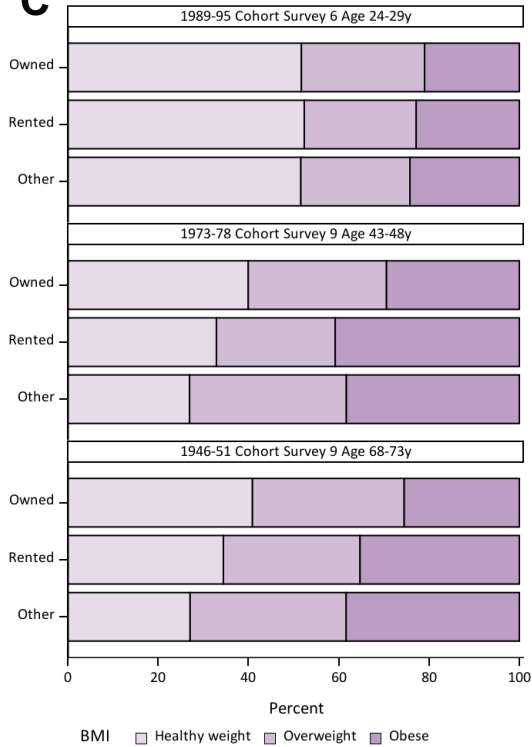
**A**



**B**

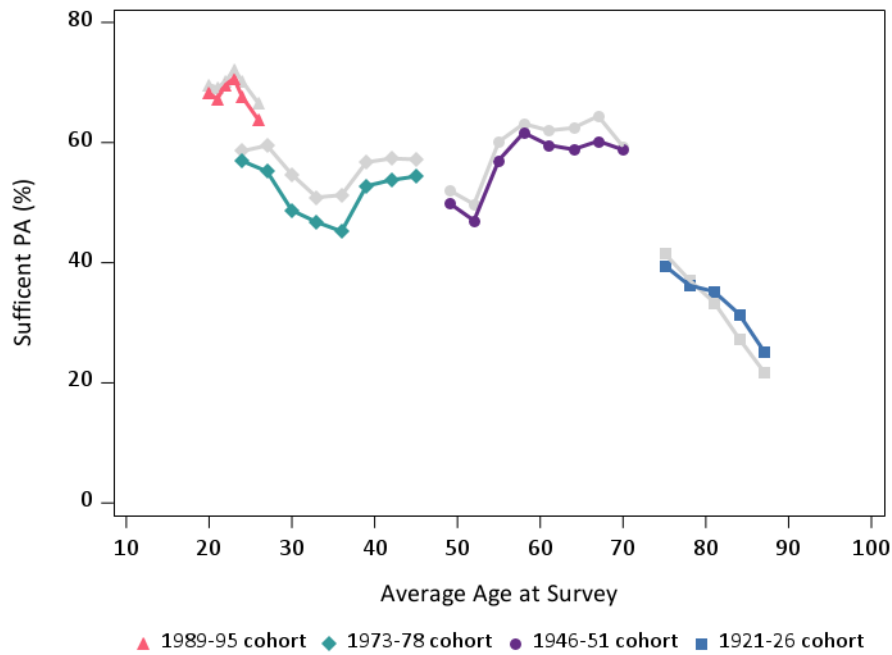


**C**

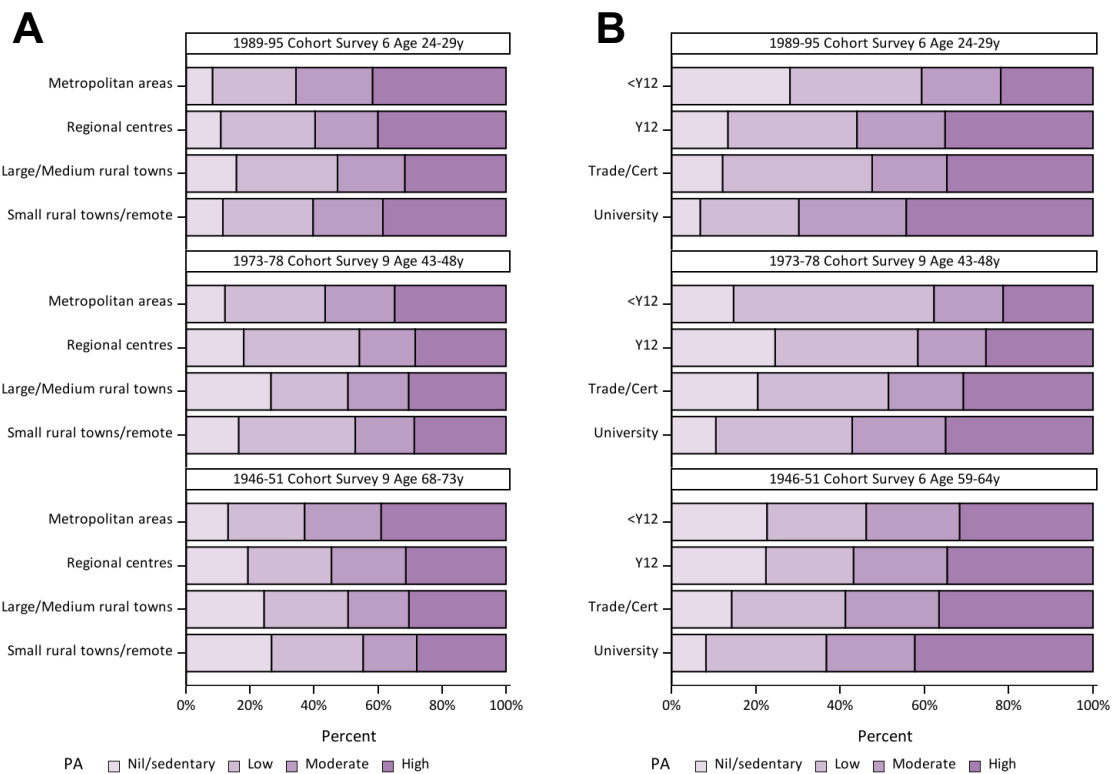


**Figure 13-6 Distribution of body mass index categories in Queensland women by area of residence (A) and highest educational attainment (B), Australian Longitudinal Study on Women’s Health.**

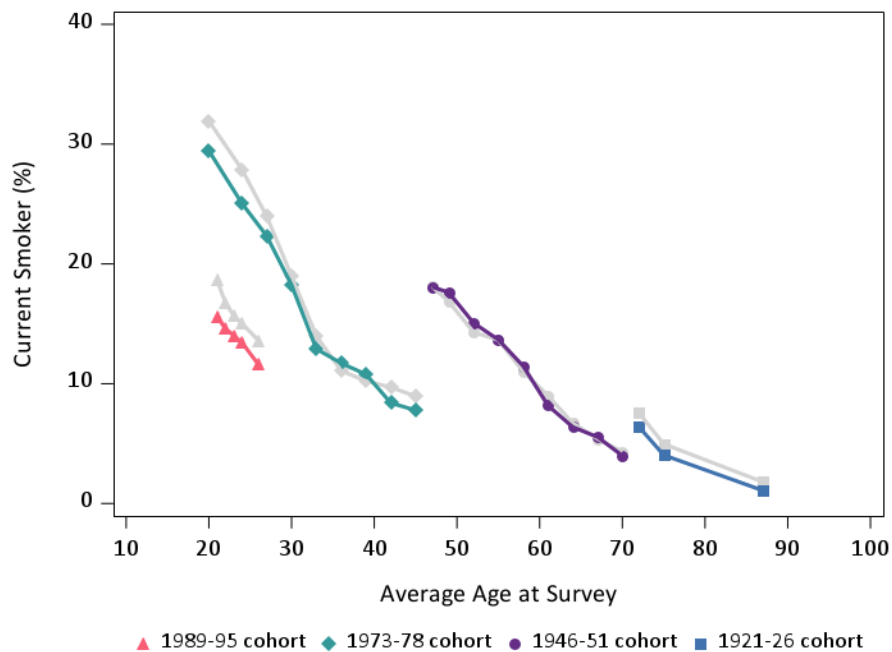




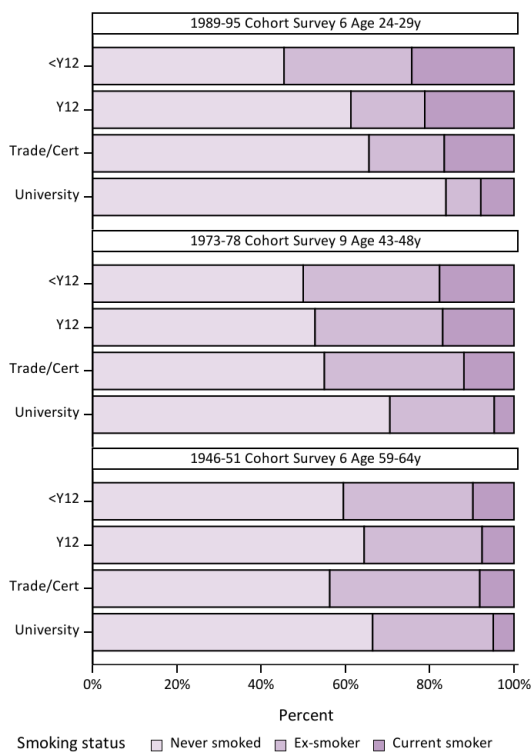
**Figure 13-7 Percentage of women in Queensland (coloured lines) and Australia (grey line) met the Australian physical activity guidelines across the life course, Australian Longitudinal Study on Women’s Health.**



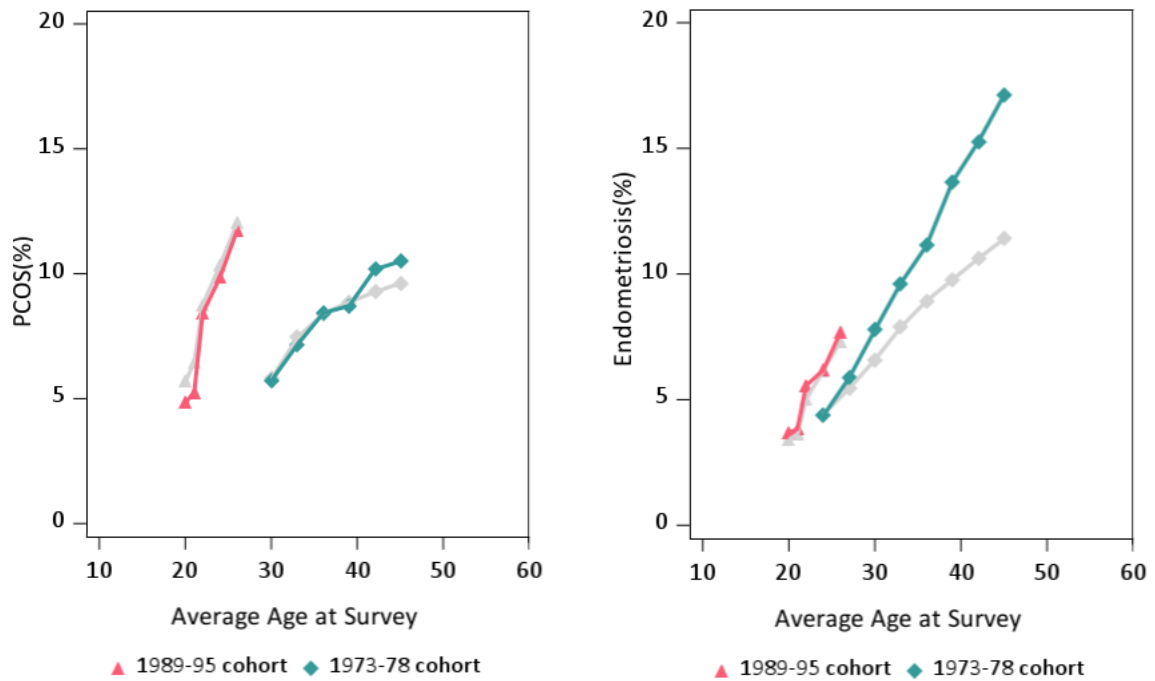
**Figure 13-8 Distribution of physical activity categories in Queensland women by area of residence (A), highest educational attainment (B), Australian Longitudinal Study on Women’s Health.**



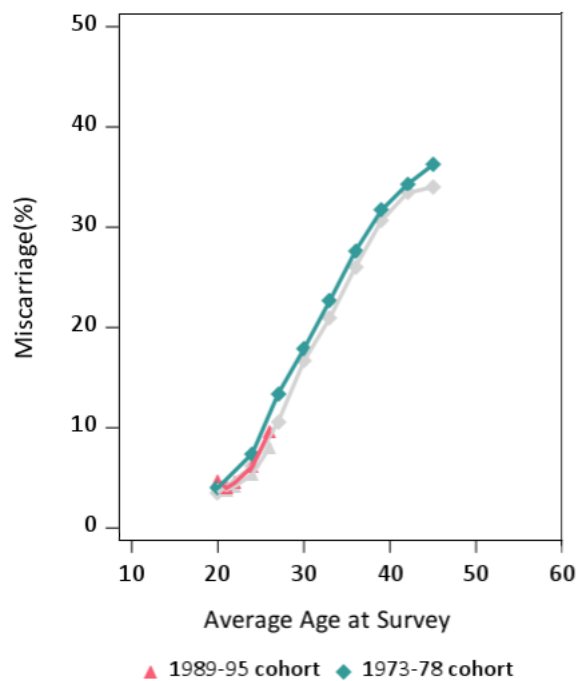
**Figure 13-9 Percentage of women in Queensland (coloured lines) and Australia (grey line) who were current smokers across the life course, Australian Longitudinal Study on Women’s Health.**



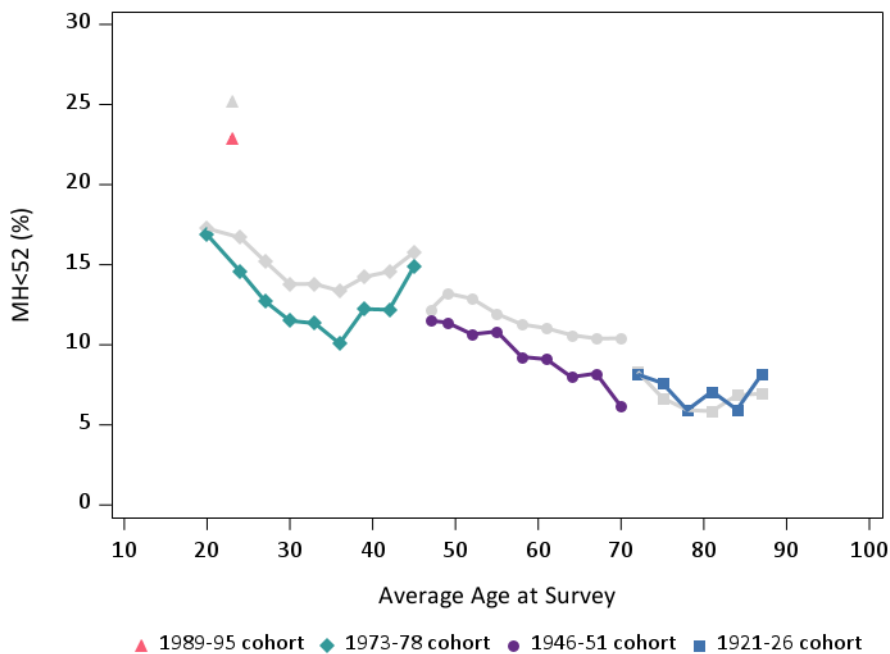
**Figure 13-10 Distribution of smoking status in Queensland women by highest educational attainment, Australian Longitudinal Study on Women’s Health.**



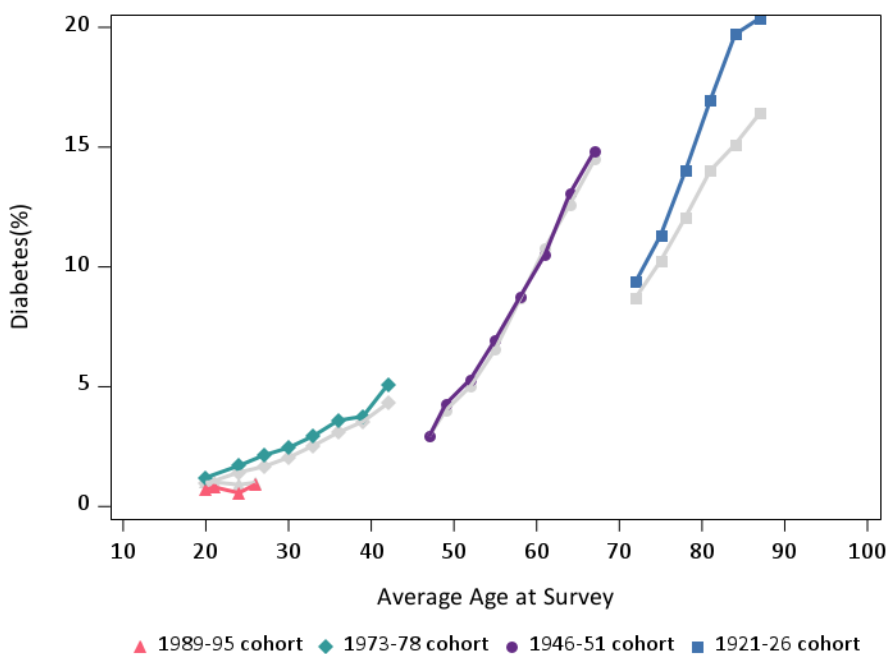
**Figure 13-11 Percentage of women in Queensland (coloured lines) and Australia (grey line) who have polycystic ovary syndrome (PCOS) or endometriosis across the life course, Australian Longitudinal Study on Women’s Health.**



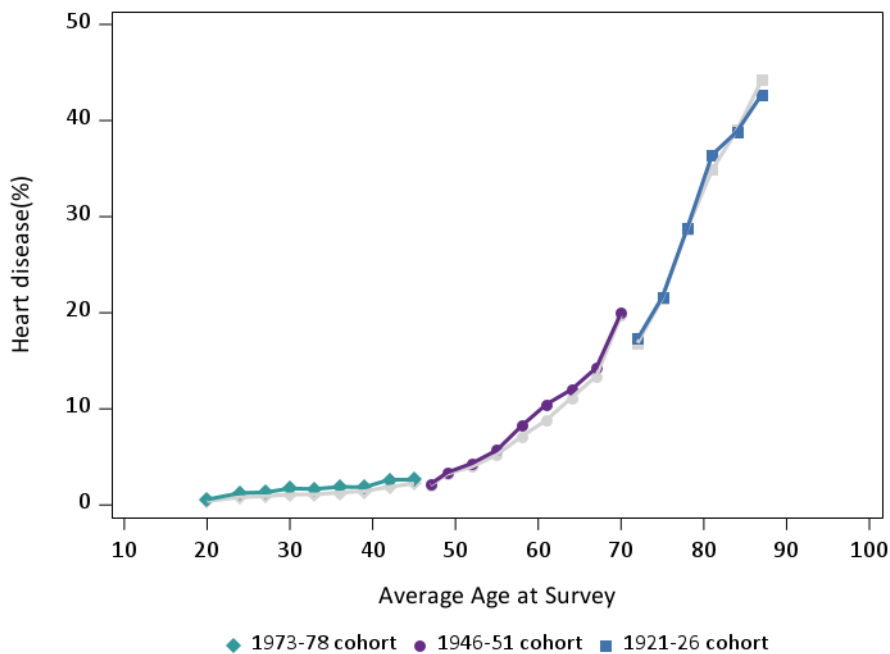
**Figure 13-12 Percentage of women in QLD (coloured lines) and Australia (grey line) who have ever experienced a miscarriage across the life course, Australian Longitudinal Study on Women’s Health.**



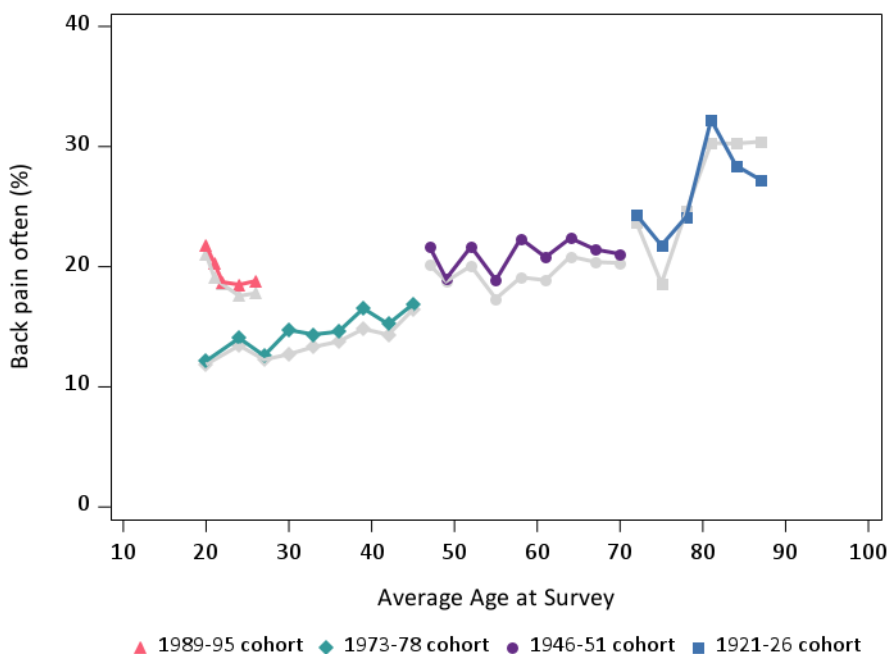
**Figure 13-13** The percentage of women with depressive symptoms (based on a mental health score of <52) in Queensland (coloured lines) and Australia (grey line) across the life course, Australian Longitudinal Study on Women’s Health.



**Figure 13-14** Percentage of women in Queensland (coloured lines) and Australia (grey lines) who have ever had diabetes across the life course, Australian Longitudinal Study on Women’s Health.



**Figure 13-15 Percentage of women in Queensland (coloured lines) and Australia (grey lines) who have ever had heart disease across the life course, Australian Longitudinal Study on Women’s Health.**



**Figure 13-16 Percentage of women in Queensland (coloured lines) and Australia (grey lines) who have often had back pain across the life course, Australian Longitudinal Study on Women’s Health.**

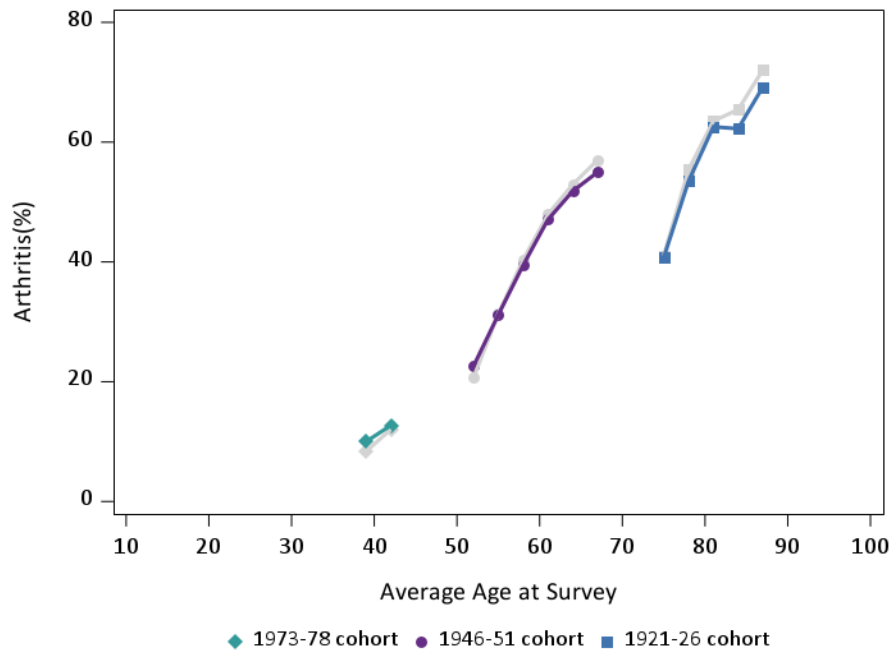


Figure 13-17 Percentage of women in Queensland (coloured lines) and Australia (grey lines) who have ever had arthritis across the life course, Australian Longitudinal Study on Women's Health.

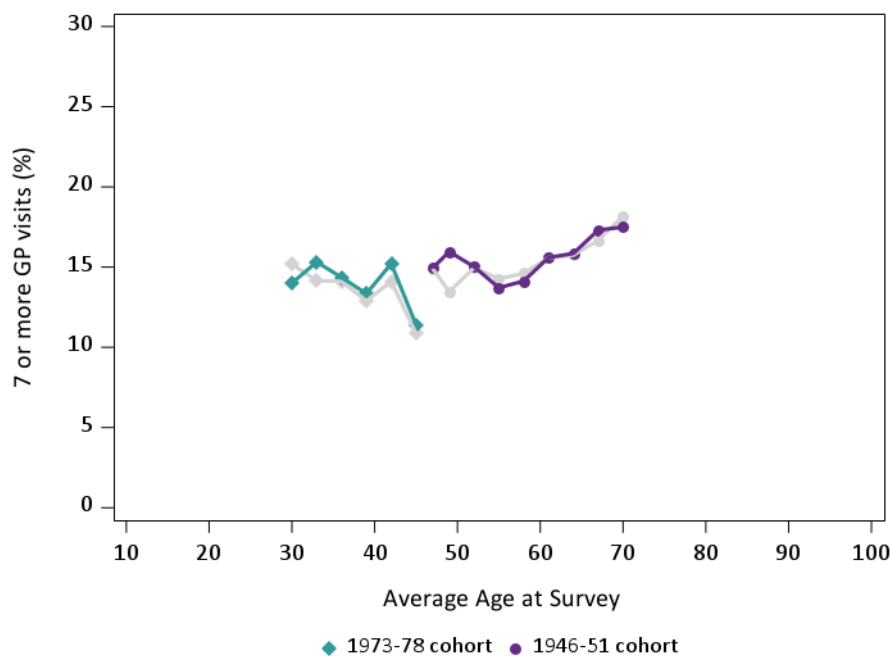
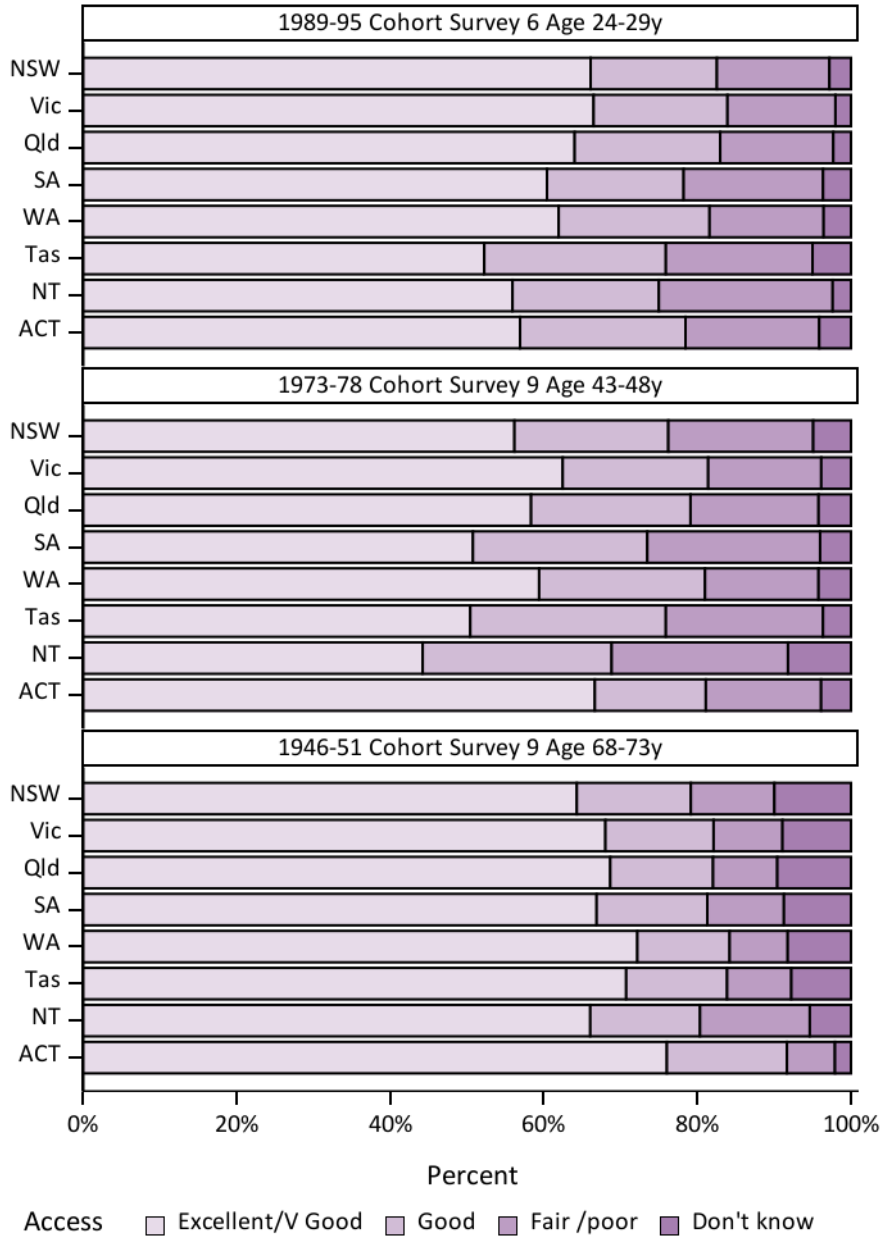
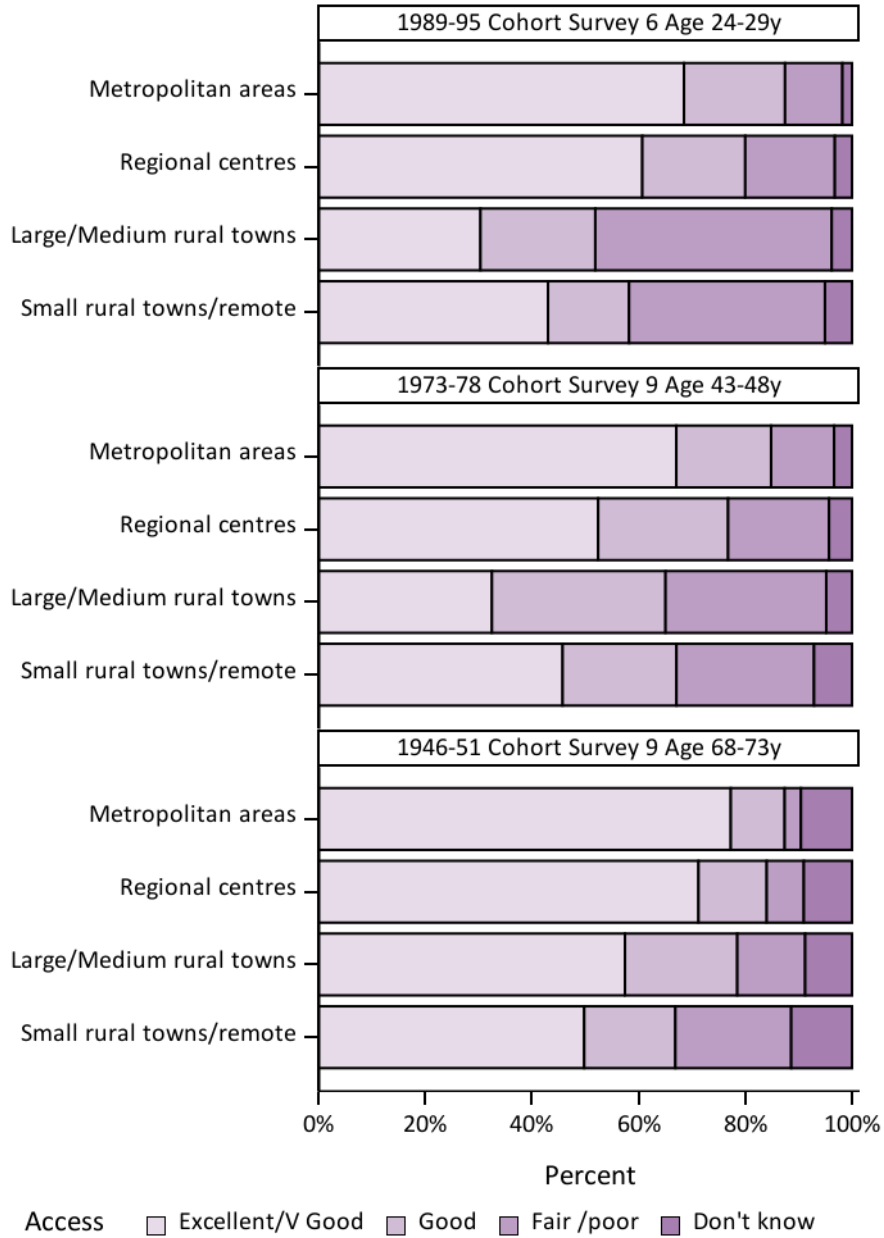


Figure 13-18 Percentage of women in QLD (coloured lines) and Australia (grey line) who had 7 or more GP visits by age, Australian Longitudinal Study on Women's Health.



**Figure 13-19 Level of access to a female GP for Australian women categorised by state, Australian Longitudinal Study on Women’s Health.**



**Figure 13-20 Distribution of level of access to a female general practitioner in Queensland women by area of residence, Australian Longitudinal Study on Women's Health.**



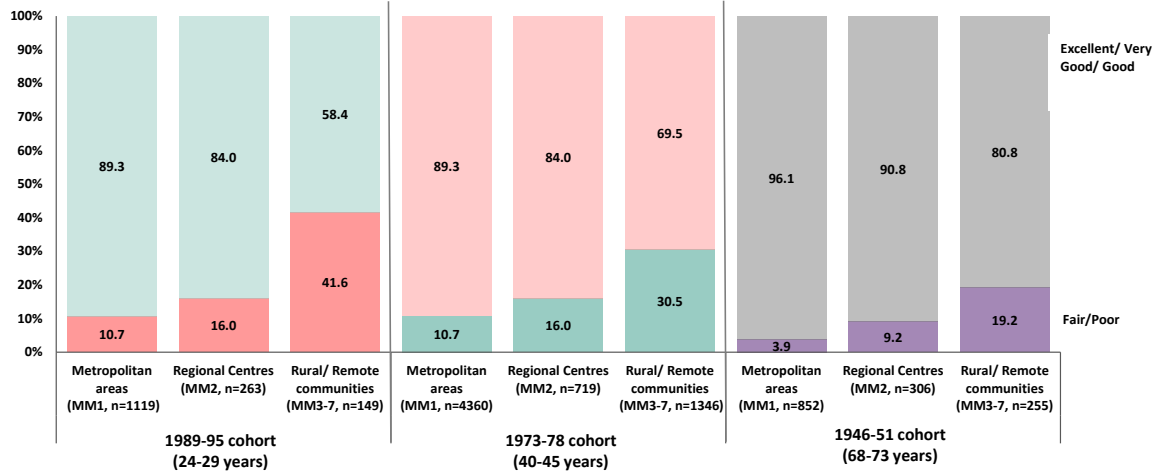


Figure 13-21 Level of access to a female general practitioner in Queensland women by area of residence.

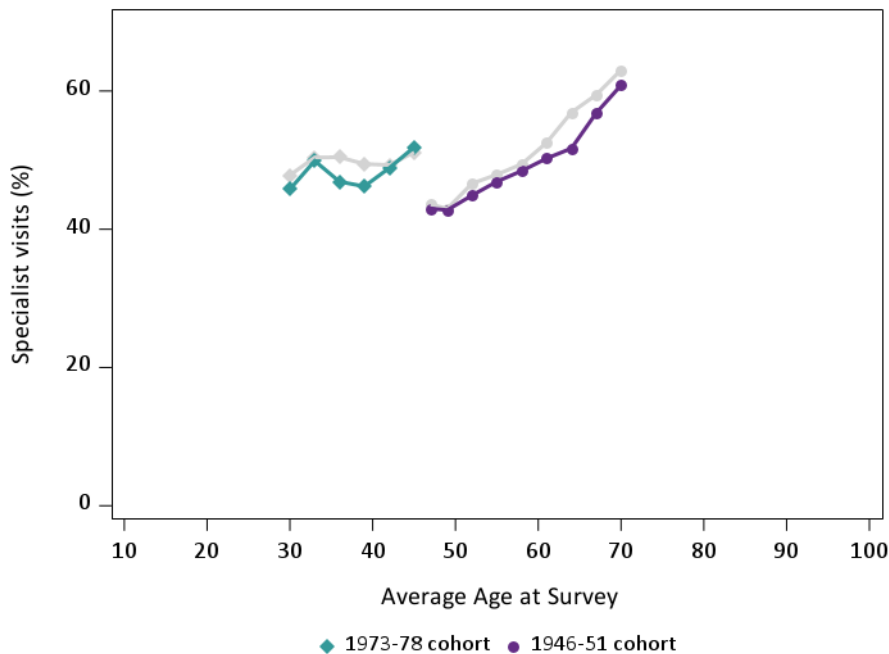
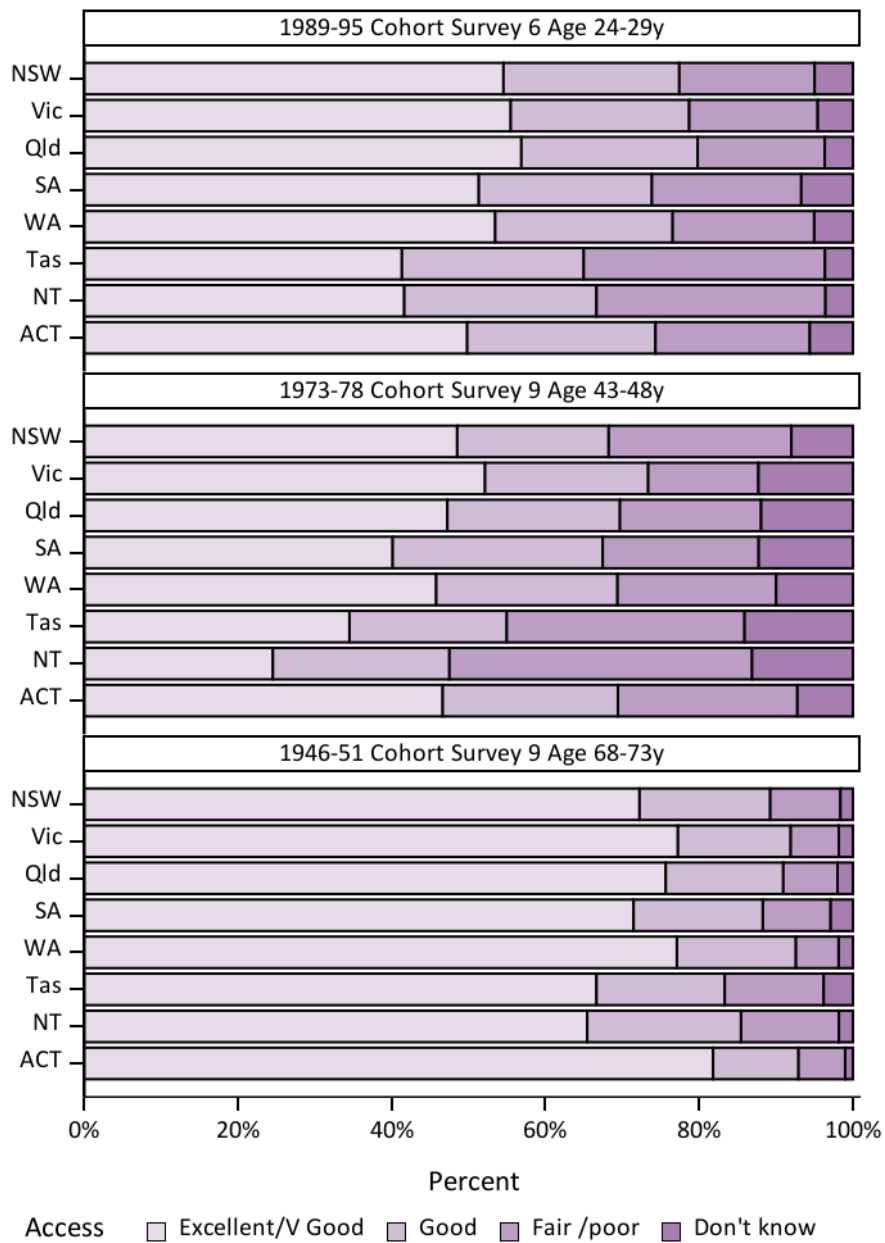
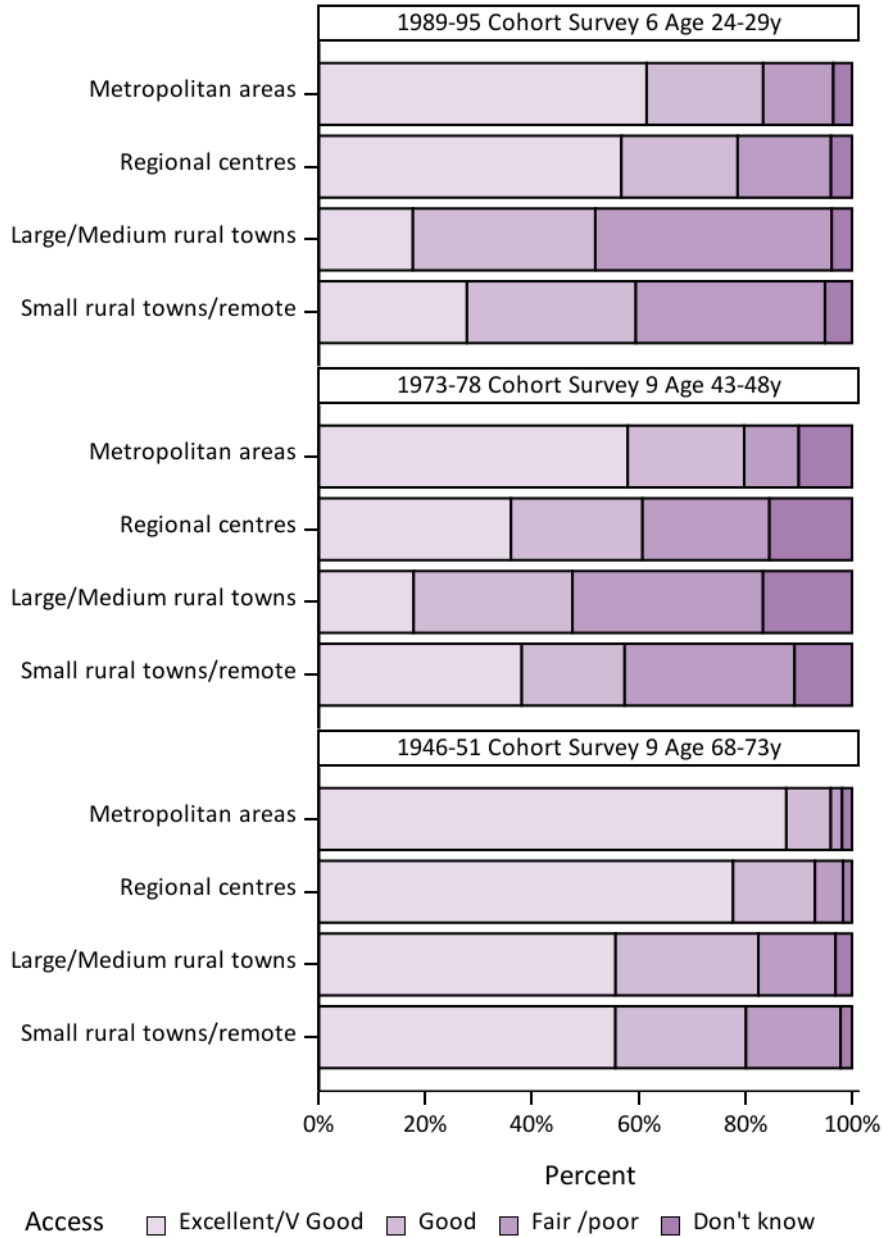


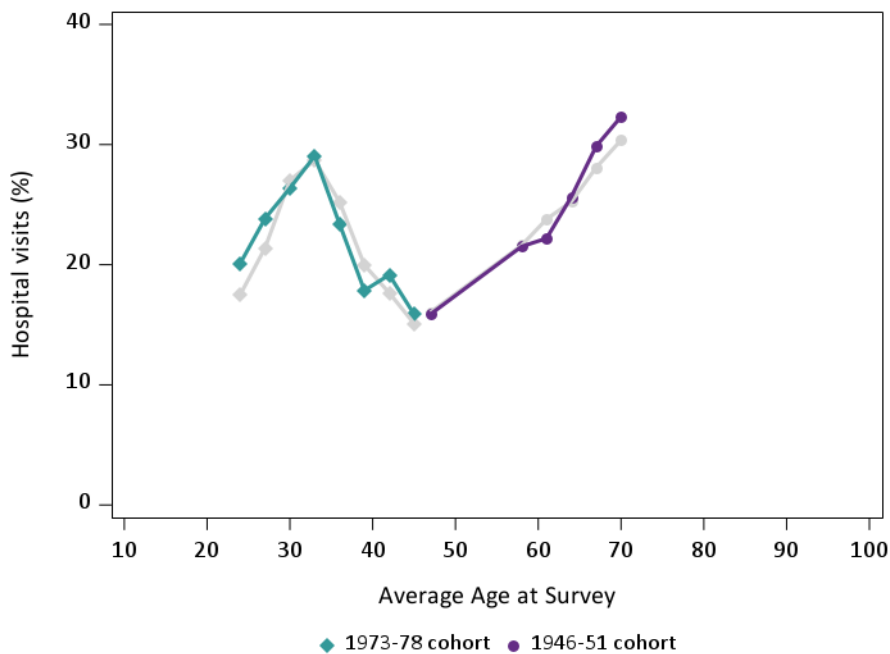
Figure 13-22 Percentage of women in QLD (coloured lines) and Australia (grey line) who attended at least one specialist visit in the previous 12 months by age, Australian Longitudinal Study on Women's Health.



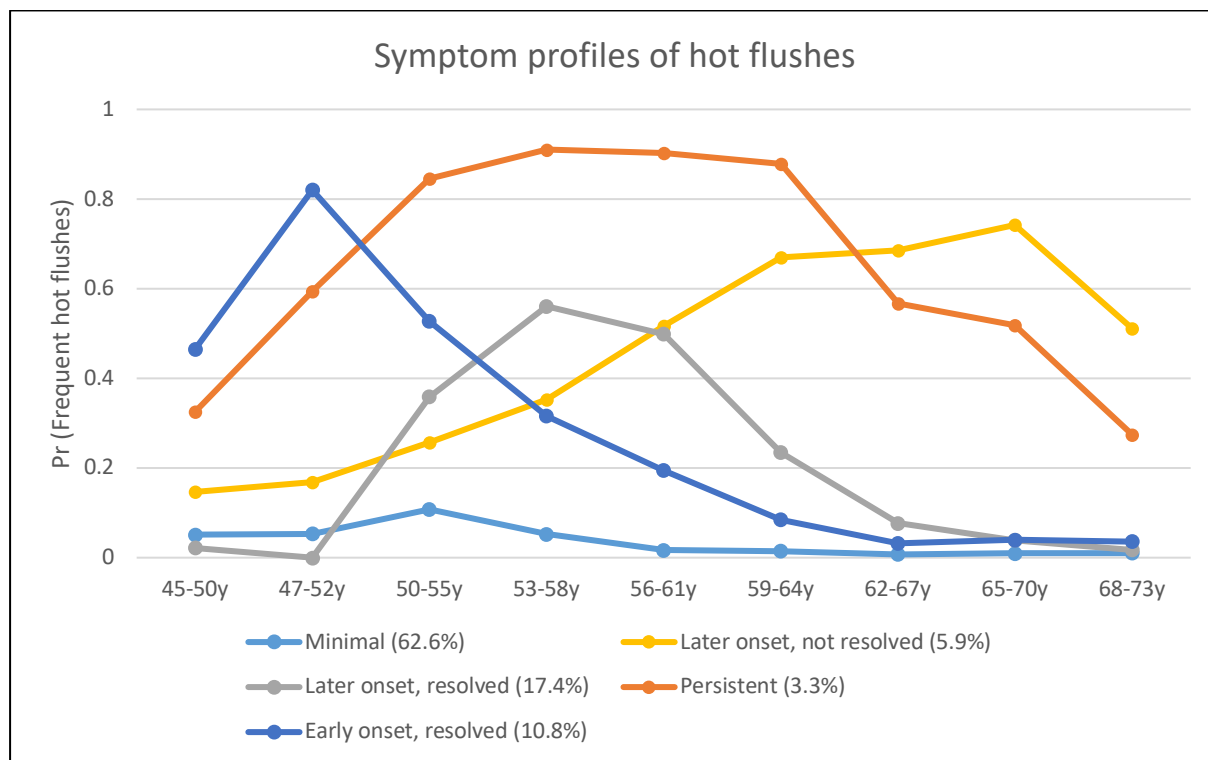
**Figure 13-23 Level of access to medical specialists for Australian women categorised by state, Australian Longitudinal Study on Women’s Health.**



**Figure 13-24 Distribution of level of access to medical specialists in Queensland women by area of residence, Australian Longitudinal Study on Women’s Health.**



**Figure 13-25 Percentage of women in QLD (coloured lines) and Australia (grey line) who attended a hospital at least once in the previous 12 months, Australian Longitudinal Study on Women's Health.**



**Figure 13-26 Symptom profiles of hot flashes, with the prevalence of hot flashes over time (N = 4,459).**