

Physical Activity and Sedentary Behaviour Policy Brief

Authors: Leigh Tooth and Annette Dobson. Prepared: February 2019.

Scope

The aim of this policy brief is to outline findings from the Australian Longitudinal Study on Women's Health (ALSWH) on the health benefits of physical activity (PA) and on women's adherence to the Australian Government 'Physical Activity and Sedentary Behaviour Guidelines'.¹

Research Findings

Adherence to national guidelines

The 2014 recommendations for adults aged 18-64 are 150-300 minutes per week of moderate intensity PA or 75-150 minutes of vigorous intensity PA, or a combination of both, and muscle strengthening activities at least 2 days each week. People aged 65 years and older should accumulate at least 30 minutes of moderate intensity PA on most, preferably all, days. Figure 1 shows the percentages of women in the four ALSWH cohorts who did not meet the PA guideline of at least 150 minutes/week by to the average age of women at each survey.²⁻⁵

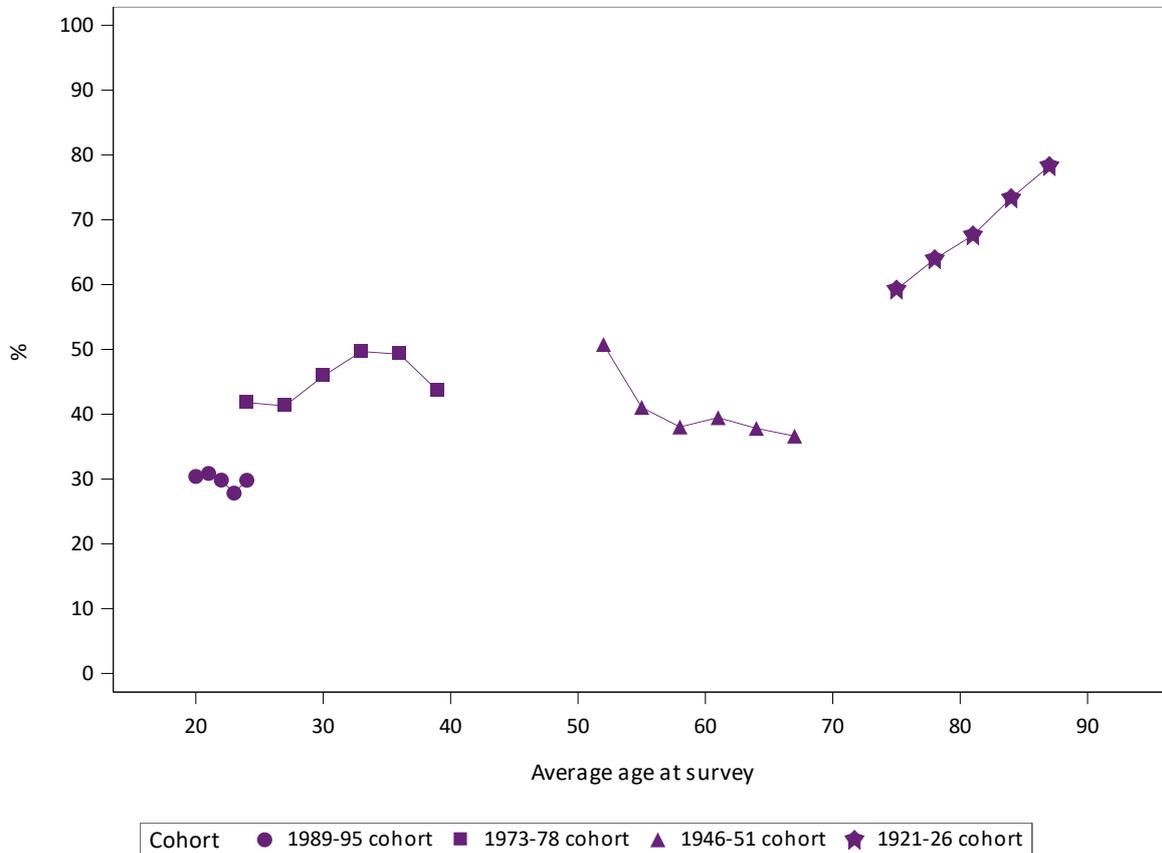


Figure 1. Percentage of ALSWH participants at each survey who did not meet the physical activity guideline of at least 150minutes per week (women born in 1989-95, 1973-78, 1946-51 and 1921-26)

Failure to meet the guidelines was lowest among youngest and highest in oldest women. Over time, failure to meet guidelines increased among the 1973-78 cohort as they moved through the stages of early motherhood, but there is evidence of increasing levels of PA from the most recent survey. Over time, levels among the 1946-51 cohort the percentage failing to meet the guidelines decreased. In the 1921-26 cohort, failure to meet the guidelines increased steadily as the women aged. Adherence to PA guidelines by ALSWH participants who were pregnant was also poor.⁶

Sociodemographic, socioeconomic and lifestyle factors associated with adherence to national guidelines

- Among women in the 1989-95 and 1973-78 cohorts, factors associated with meeting the PA guidelines included healthy body mass index, sociodemographic characteristics (being single, not having children, higher education, working full-time, higher occupational status, not being born in Asia), and lifestyle factors (low risk drinking, not smoking).⁷⁻⁹
- For the 1946-51 cohort, meeting and/or exceeding the PA guidelines was associated with higher education, higher perceived social class, retirement, low risk drinking, less sitting time, healthy BMI, fewer than 3 chronic conditions, fewer than 3 children living at home, not smoking, not being born in Asia, and reporting less stress.^{8,10}
- For the 1921-26 cohort, factors associated with high sitting time and low PA levels were obesity, having 3 or more chronic conditions, having more symptoms of anxiety and depression and not having caring or volunteer duties.¹¹

Health effects of physical activity and sedentary behaviour

- A meta-analysis of data from more than 1 million people including ALSWH participants showed clear associations between PA, sitting time and death. High levels of PA (about 60–75 minutes/day) mitigated the mortality risk associated with long time spent sitting (more than 8 hours/day).¹²
- Higher PA was associated with better current and future health-related quality of life, particularly physical functioning and vitality. Even if walking was their only activity, women in their 70s to 80s had better health-related quality of life¹³ and mental health.¹⁴⁻¹⁷
- Throughout adulthood, participation in PA was more strongly associated with maintaining physical functioning than other lifestyle risk factors such as alcohol intake and smoking.¹⁸
- More time spent sitting and lower levels of PA were associated with poorer physical functioning in older women.¹⁹
- For women in their 20s, there was a dose-response relationship between PA, achieving or maintaining healthy body mass index, and reducing the risk of becoming overweight or obese.²⁰

- Low PA was associated with higher risk of developing back pain²¹ and joint pain/stiffness.²² Participation in vigorous PA (i.e. that make a person 'puff and pant') was protective of back pain in women aged 45 to 67 years.²¹
- Women in their 70's had lower risk of arthritis if they reported 75 -150 minutes/week of PA (less than the guidelines); meeting the guidelines did not reduce the risk further. Women who reported walking as little as 100-200 minutes/week also had a lower risk of arthritis.²³
- Meeting PA guidelines was associated with lower risk of hypertension in mid-age women²⁴, with even lower risk for women who were highly active.²⁵
- Not meeting PA guidelines was associated with an 8-23% higher risk of developing type II diabetes.²⁶
- There were clear associations between PA and better mental health in young²⁷, mid-aged^{27,28} and older women.^{15,29} Generally, higher levels of PA were associated with better mental health, and for older women even low levels of PA were associated with fewer symptoms of anxiety and depression.¹⁵
- The potential benefits of at least 150 minutes/week of moderate to vigorous PA, include:
 - For mid-aged women, a reduction in current and future depressive symptoms²⁸, hypertension²⁵, back pain³⁰, joint pain/stiffness²², and in incidence rates of conditions such as cancer and diabetes, and increased optimism.^{26,27}
 - For younger women, improved optimism²⁷, reduced risk of overweight or obesity²⁰, and risk of future back pain.²¹
 - For older women, maintaining higher levels of physical functioning for longer¹⁹
- If women who were currently inactive became more active (even if they still did not meet the PA guidelines) the potential benefits include a reduction in joint pain/stiffness in mid-age women, a reduction in arthritis treatment or diagnosis²³, and fewer depression and anxiety symptoms for older women.^{15,29}

Use and costs of health services

- Physical inactivity was associated with higher total annual costs for Medicare subsidised health services.³¹

- If the almost 3 million mid-age Australian women who were inactive became highly active nearly AU\$40 million/annum in healthcare costs potentially could be saved.^{29,31}

Recommendations

- There is evidence from ALSWH that strategies that aim to assist women not currently meeting the guidelines of 150 minutes of PA per week to do so ('middle of the road' approach) would be better for reducing the incidence of chronic conditions, rather than aiming for an increase of 30 minutes by everyone ('whole population' approach), or an increase of 60 minutes by the least active women ('high risk' approach).³²
- Public health policies geared towards increasing adherence to PA guidelines (or increasing PA levels generally) should prioritise women of lower socioeconomic status, Asian-born women, women with children, women at risk of developing chronic conditions, and women with poorer mental health.

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