Physical activity and healthy eating promotion to ACT women

A guide to getting it right

Amber Hutchison

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Acknowledgements

Thank you to all the women (and organisations) who chose to participate in this research by completing the consultation survey, being involved in an interview, or participating in a focus group. It is your valuable insights and sharing of your life experiences that inform our work and help us to influence change in health services and support so that they are responsive to the needs of all ACT women. We thank you for your stories and hope that this report will highlight and influence the need for improvements that might have a real and lasting impact on your lives.

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About Women's Centre for Health Matters Inc.

The Women's Centre for Health Matters Inc. (WCHM) is a community based organisation which works in the ACT and surrounding region to improve women's health and wellbeing. WCHM believes that the environment and life circumstances which each woman experiences affects her health outcomes. WCHM focuses on areas of possible disadvantage and uses social research, community development and health promotion to provide information and skills that empower women to enhance their own health and wellbeing. WCHM undertakes social research and advocacy to influence systems' change with the aim to improve women's health and wellbeing outcomes. WCHM is funded by ACT Health.

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Executive Summary

Every year, government and community organisations put significant resources into health promotion campaigns that encourage people in the ACT to eat healthy and exercise regularly. These two health behaviours are part of a broader preventive health program that aims to improve the health and wellbeing of the broader ACT population.

Women's Centre for Health Matters researched the factors that influence women's ability to participate in healthy eating and physical activity, to better understand how to improve the effectiveness of health promotion campaigns for ACT women.

We found that women in the ACT value the health benefits of physical activity and healthy eating because they help them get through the day and live a long, healthy life. This includes women with chronic disease.

Most women who participated in our research are trying to participate in healthy eating and physical activity. Eighty one percent of women in our study self-reported that they participated in physical activity, and 94 percent of women in our study self-reported that they ate healthy food. But they also told us that they experience guilt and shame even if they are participating in healthy eating and physical activity.

Women who participated in the research said they were motivated to participate in physical activity for enjoyment, to maintain social connection, and that it was part of their sense of self. Time and affordability were the biggest barriers to physical activity, but this was further affected by a women's fear of being unsafe and fear of judgment. For women on low incomes who had children, the additional cost of childminding made physical activity even more unaffordable.

Time and affordability were also barriers to healthy eating for the women who participated in this research. Women who eat healthy have quick and easy strategies to make healthy food. Some women use the work associated with healthy eating as a way to socialise, motivating them to eat healthy. Women on low incomes found that affordability of healthy food, and food in general, was a significant barrier to eating well, and appreciated services that provided free or low cost food.

Around half of the women with chronic disease who participated in the research talked about their symptoms limiting their ability to participate in healthy behaviours.

Based on this research, we are able to identify factors that may contribute to successful outcomes for healthy eating and physical activity health promotion campaigns aimed at ACT women.

Campaigns that capitalise on what motivates women to participate in physical activity and to healthy eating appealed more to the women who participated in this research, such as focusing on the enjoyment of being physical active.

Health promotion campaigns that include strategies for how to participate in the behaviours, not just why the behaviour should be valued, were also more appealing to women. For example, the "Swap it, don't stop it" campaign that swapped an unhealthy eating habit for a healthy one provided women who participated in the research with ways to make healthier choices.

Women talked about wanting to see themselves reflected in images and messaging in health promotion campaigns. Demonstrating an understanding of the diversity of ACT women, and representing that diversity in campaign materials, would appeal more to ACT women. “Girls make your move” was an example of a campaign that women talked about as being motivational.

Campaigns that address barriers to participation in behaviours, such as time, cost, and perceptions of safety, provide practical ways to incorporate changes into their lives.

This research also helps identify what doesn’t work. Health promotion campaigns that promote stigma are unlikely to motivate women who already feel the need to live up to unrealistic body expectations.

We hope that this research will be helpful to inform future health promotion campaigns aimed at encouraging ACT women to engage in physical activity and eat well.

Introduction

The Women's Centre for Health Matters (WCHM) identified in early 2018 that younger women with chronic diseases had significant barriers to participation in healthy eating and physical activity due to factors relating to their chronic diseases.[1] Women participating in the *ACT Women's Health Matters!* research during 2016-17 told WCHM that maintaining health was very important to them, and that one of their top three health issues was weight, diet and fitness.[2]

Research shows that women feel the impacts of time and income scarcity,[3] particularly as women tend to take on more responsibility than men when it comes to childminding[4] and food work,[5] greatly affecting their ability to put their health first.

The health of the population of the ACT has been the focus of governments past and present, and health promotion campaigns continue to focus on weight reduction. Excess weight has been listed as a leading contributor to many chronic diseases such as cardiovascular disease, diabetes, and some musculoskeletal conditions.[6] However, there is a growing body of literature that supports the notion that a sedentary lifestyle and poor eating habits are more important than excess weight when it comes to chronic diseases.[7] [8] In fact, focusing on people's weight, particularly women's weight,[9] in health promotion campaigns can be stigmatising and push "the pedagogy of disgust". [10]

The terms "healthy eating" and "exercise" also bring up stigmatisation. This is why "eating well" and "physical activity" may be used in this report instead. "Eating well" encompasses not just the nutritional value of food, but the other aspects of eating such as enjoyment, family, cultural and social aspects of food. The term "physical activity" is any action that is moving your body, and is broader than "exercise" in that it accommodates activity that is beneficial for health but whose primary purpose is not for fitness, such as gardening or house work.

This project, as with all WCHM work, aligns with the guidelines of the Ottawa Charter for Health Promotion: to promote and enable equitable access to health as a recourse for well-being.[11] In particular, effort has been made to include the perspectives of women from low income households, and women from culturally and linguistically diverse (CALD) backgrounds. These

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[1] A Hutchison, "I don't have the spoons for that…" The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[2] E Hoban, The women's health utilisation study, Women's Centre for Health Matters, Canberra, 2018.
[3] D Venn & L Strazdins, 'Your money or your time? How both types of scarcity matter to physical activity and healthy eating', Social Science & Medicine, vol. 172, 2017, pp. 98-106.
[4] K H Bellows-Riecken & R E Rhodes, 'A birth of inactivity? A review of physical activity and parenthood', Preventive Medicine, vol. 46, 2008, pp. 99-110.
[5] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[6] Australian Institute of Health and Welfare, Overweight and Obesity, Australian Government, Canberra, 2018, retrieved on the 6th of September 2018: https://www.aihw.gov.au/reports-statistics/behaviours-risk-factors/overweight-obesity/overview
[7] S J Dankel, J P Loenneke & P D Loprinzi, 'Does the fat-but-fit paradigm hold true for all-cause mortality when considering the duration of overweight/obesity? Analyzing the WATCH (weight, activity and time contributes to health) paradigm', Preventative Medicine, vol. 83, 2016, pp. 37-40.
[8] L Bacon et al., 'Size acceptance and intuitive eating improve health for obese, female chronic dieters', Journal of American Diet Association, vol. 105, no. 6, 2005, pp. 929-936.
[9] J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2009.
[10] D Lupton, "The pedagogy of disgust: the ethical, moral and political implications of using disgust in public health campaigns, Critical Public Health, vol. 25, no. 1, 2015, pp.4-14.
[11] World Health Organisation, The Ottawa Charter for Health Promotion, Ottawa, 1986, retrieved on the 6th of September 2018: http://www.who.int/healthpromotion/conferences/previous/ottawa/en/

women may have experiences of health promotion campaigns and barriers to participation in healthy behaviours that are unique to their socio-economic circumstances or cultural background.

WCHM set out to explore how life stages, life roles, and the social determinants of women's lives impact on the ability of ACT women to improve and maintain healthy behaviours, and to identify factors that impact the success of health promotion campaigns.

Methodology

Previous WCHM work found that there was a need to investigate how life stages, life roles, and the social determinants of ACT women's lives impact on their ability to improve and maintain healthy behaviours, and to identify possible options and actions. WCHM used a mixed methodology by developing and implementing a qualifying survey, and conducting eleven focus groups and thirteen interviews in early 2018. The aims of the survey were to recruit ACT women to share their stories in a focus group setting, and collect demographic data to help identify a suitable group in which they would be invited to participate. The aim of the focus groups (and interviews) was to explore physical activity and healthy eating behaviours and barriers to participation, and their response to health promotion campaigns.

The qualifying survey was open for 30 days and recruited 52 participants. The online survey, developed in Survey Monkey, was distributed through WCHM's networks and through those of other community organisations and service providers. Advertisements were placed on the WCHM website, Facebook, and on RiotACT,[12] WCHM also partnered with places with free or low cost food to reach more vulnerable women.

The preliminary survey contained two initial qualifying questions that required an answer of yes to continue:

1. Do you identify as a woman?
2. Do you live in the ACT or surrounding areas?

Participants needed to have filled out all of the preliminary survey questions to be recruited to the focus groups or interviews.

The online survey provided all participants with information about the project and an indication that, by completing and submitting the form, they were consenting to their information being stored and used for the purposes of this research.

The final question asked women to indicate if they would like to participate in focus groups or interviews, and if so to provide contact details. Eighty one women expressed interest in participating in the focus group. Focus groups and interviews were held in and outside business hours, to provide women with multiple participation options. Forty one women in total attended the focus groups, and thirteen women were interviewed individually, both face to face and over the phone. The focus group questions were developed to further inform and explore areas that WCHM wanted to understand in depth.

Analysis of qualitative, open ended questions was coded and analysed. Quantitative data from the qualifying survey was analysed using Microsoft Excel. Themes were built around the questions, and a literature review helped identify paradigms. The literature review involved searching a wide range of search terms, university databases, and relevant published papers.

[12] E Davidson, Healthy eating and physical activity: what works?, RiotACT, 2018, retrieved on the 6th of September 2018: https://the-riotact.com/healthy-eating-and-physical-activity-what-works/240068

As with all surveys conducted to date by WCHM, we used a non-probability convenience sample. This means that the survey was widely promoted and all women who met the qualifying criteria were welcome to participate. As a result, the number of women in our sample does not reflect the population of women in the ACT as a whole and is therefore not representative. Rather, the findings in this report provide an indication of the issues that exist for women in the ACT, as well as recommendations for future health promotion campaigns.

Literature review

We know that barriers and facilitators to healthy behaviours differ for women across their life-stage.[13] The aim of the literature review is to find out what has or has not worked for women trying to participate in physical activity and healthy eating, while comparing age groups and life roles.

Why is this research important?

ACT Health's *Towards Zero Growth Healthy Weight Action Plan*[14] supports the improvement of health in people in the ACT to reduce chronic disease by focusing on healthy weight, healthy eating, and physical activity behaviours. The plan promotes active travel, upgrading infrastructure, improving accessibility of healthy food and water in the built environment and at workplaces and schools, and promoting health behaviours through the implementation of the healthier school and work programs.[15] Improved health behaviours lead to improved overall health, lower risk of lifestyle diseases, improved workplaces with less absenteeism and better productivity.[16] [17]

However, without addressing the social impact on health behaviours such as gender,[18] socioeconomic differences[19] and life roles,[20] health promotion may not meet set targets.

Wakefield, Loken, and Hornik discuss that homogenous health promotion campaigns are likely not to be efficacious to a heterogenous population.[21] Similarly, health promotion campaigns that discuss the reasons "why" a person should carry out the health behaviour and not the "what" they should be doing and "how" they should be doing it, have been found to be discouraging for those that are doing the least physical activity and healthy eating.[22]

Health promotion that doesn't take into consideration the differences in 'biology and social vulnerability to health risks' between the genders is likely to fail.[23] Ostelin et al states that other social factors are often the barriers to preventing health behaviour change. For example, campaigns that aim to increase levels of healthy eating by targeting individual eating behaviours, but don't address the fact that women are often doing 2.5 times more food work than men, which reduces their time to cook healthy meals.[24] Health promotion intended to improve the health of

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[13] D P Scharff et al., 'Factors associated with physical activity in women across the lifespan: implication for program development', Women & Health, vol. 29, no. 2, pp. 115-134.
[14] ACT Health, Towards zero growth healthy weight action plan, Canberra, 2013, retrieved on the 6th of November 2017: https://www.health.act.gov.au/sites/default/files/Towards%20Zero%20Growth%20Healthy%20Weight%20Action%20Plan.pdf
[15] Ibid
[16] S Kelly et al., 'Barriers and facilitators to the uptake and maintenance of healthy behaviours by people at mid-life: A rapid systematic review', PLoS One, vol. 11, no. 1, pp. 1-26.
[17] J C Coulson, J McKenna & M Field, 'Exercising at work and self-reported work performance', International Journal of Workplace Health Management, vol. 1, no. 3, 2008, pp. 176-197.
[18] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
[19] L Williams, J Germov & A Young, 'The effect of social class on mid-age women's weight control practices and weight gain', Appetite, vol. 56, 2011, pp. 719-725.
[20] N Welch et al., 'Women's work. Maintaining a healthy body weight', Appetite, vol. 53, 2009, pp. 9-15.
[21] M A Wakefield, B Loken & R C Hornik, 'Use of mass media campaigns to change health behaviour', Lancet, vol. 376, no. 9748, 2010, pp. 1261-1271.
[22] H Dixon et al., 'Identifying effective healthy weight and lifestyle advertisements: Focus groups with Australian adults', Appetite, vol. 103, 2016, pp. 184-191.
[23] P Ostlin et al, 'Gender and health promotion: A multisectoral policy approach', Health Promotion International, vol. 21, no. S12, 2007, pp. 25-35.
[24] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf

women needs to target women specifically in a voice they can identify with, without being judgemental or shaming.[25]

In the 2018 WCHM report *"I don't have the spoons for that…": The views and experiences of younger ACT women (aged 18-50 years) about accessing supports and services for chronic disease*, participants commented that health promotion messages were often not suited to them and made them feel guilty for not meeting social expectations.[26] Likewise, even though health promotion interventions are valuable for people with disabilities, they are often not targeted at them.[27] Smeltzer and Zimmerman showed that health behaviours are important to women with disabilities. In the study, 'exercise and physical fitness' and 'nutrition and healthy eating' were listed in the top four subjects of interest after 'ageing with a disability' and 'stress management strategies', and so health promotion should be directed towards them too.[28]

Women from diverse cultural backgrounds may have significant barriers to health promotion interventions. Health promotion needs to take into consideration family or community structure, such as who is the main decision maker, how the cultural group sees time (as they might focus on the present rather than the impact they make on the future), how socioeconomic status affects their ability to change behaviour, cultural food and practices, individual vs collectivist cultures, any language barriers, familiarity with environment and religious beliefs.[29]

Population health campaigns that focus on an individual's appearance are likely to perpetuate stigma. Stigma is a "process of dehumanising, degrading, discrediting and devaluing people in certain population groups, often based on a feeling of disgust."[30] Lupton describes health promotion campaigns that contain fear and disgust inducing messaging as teaching disgust – "the pedagogy of disgust".[31] Weight stigma in population health campaigns has been shown to be counterproductive to the overall health of the population and has led to some undesirable consequences: increased health disparities, disregard of social determinants of health in causes of obesity, weakened obesity prevention efforts, and social inequalities.[32] [33]

Weight stigma has been shown to have negative impact on individuals socially and mentally, affecting their employment opportunities, financial security and personal relationships.[34] Weight stigma has been shown to lead to poor health outcomes, a reduction in healthy eating and physical activity, increased mental health conditions, stress induced pathophysiology and poor uptake of health care utilisation.[35]

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[25] Sports England and FCB Inferno, *This girl can*; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[26] A Hutchison, "I don't have the spoons for that…" The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[27] World Health Organisation and the World Bank, World report on disability, Geneva, 2011, retrieved on the 21st of March 2018; http://www.who.int/disabilities/world_report/2011/report.pdf
[28] S C Smeltzer & V L Zimmerman, 'Health promotion interests of women with disabilities,' Journal of Neuroscience Nursing, vol. 37, no. 2, 2005, pp. 80-86.
[29] K S Montgomery & K J Schubart, 'Health promotion in culturally diverse and vulnerable populations', Home Health Care Management & Practice, vol. 22, no. 2, 2010, pp. 131-139.
[30] E Goffman, Stigma: Notes on the Management of Spoiled Identity, Simon & Schuster, New York, 1963, cited in J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2009.
[31] D Lupton, "The pedagogy of disgust: the ethical, moral and political implications of using disgust in public health campaigns, Critical Public Health, vol. 25, no. 1, 2015, pp.4-14.
[32] R M Puhl & C A Heuer, 'Obesity stigma: important consideration for public health', American Journal of Public Health, vol. 100, 2010, pp. 1019-1028.
[33] R Puhl, J L Peterson & J Luedicke, 'Fighting obesity or obese persons? Public perception of obesity-related health messages', International Journal of Obesity, vol. 37, 2013, pp. 774 – 782.
[34] R M Puhl & C A Heuer, 'Obesity stigma: important consideration for public health', American Journal of Public Health, vol. 100, 2010, pp. 1019-1028.
[35] R M Puhl & C A Heuer, 'Obesity stigma: important consideration for public health', American Journal of Public Health, vol. 100, 2010, pp. 1019-1028.

Women's Health Victoria make the point that an "intersection between food, gender, eating behaviour, body image, mental health and chronic disease" needs to be considered when promoting women's health.[36] Improving the way in which health promotion is directed to women increases retention in health behaviours,[37] especially if the health promotion is focused "less on individual behaviour change, and addresses the multiple social and economic factors at play." [38]

Women's health behaviours in the ACT

The information we have on women's health behaviours in the ACT is limited. The National Health Survey has not released any gender disaggregated data about health behaviours for the ACT. The 2013-2014 ACT General Health Survey has some gendered information available. Most women (88%) in the ACT (18-85+ year old) are not eating the recommended 5 servings of vegetables per day,[39] but more than half (58%) are consuming enough fruit.[40] Data from the 2008 Australian General Health Survey report that 65% of women aged 18-24 years old and 49% of 25+ year old's were participating in the recommended level of physical activity.[41] In addition, data from the Jean Hailes survey showed that 50% of the ACT women that were surveyed were doing the recommended amount of physical activity (2.5hrs per week).[42]

In a recent published survey by WCHM of 601 ACT women, 49% said they were concerned about physical activity, healthy eating and their weight.[43] Differences appeared across ages in how the women discussed their ability to engage in good health behaviours.[44] Women in the 25-34 year old group talked about wanting to start good health behaviours.[45] In contrast, the 45-54 year old group were concerned about weight, but when discussing physical activity mentioned wanting to improve strength and flexibility. Healthy eating was more about management of a chronic condition.[46] Although 55-64 year olds were concerned about physical activity and healthy eating, they discussed losing weight, being overweight and obese, or needing to manage weight.[47]

What doesn't work for women?

Gender roles and family

The role of gender in family life has a significant influence on whether a woman can participate in healthy behaviours.[48] The most recent Jean Hailes survey finds no significant difference between marital status and physical activity participation, although it was not mentioned if those that were

[36] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[37] Sports England and FCB Inferno, This girl can; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[38] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[39] ACT Health, ACT General Health Survey 2013-2014, Canberra, retrieved on the 23rd of November 2017: http://stats.health.act.gov.au/statistics-and-indicators-categories
[40] Ibid
[41] ACT Health, Health status of young people in the ACT, Canberra, 2011, retrieved on the 23rd of November 2017: http://stats.health.act.gov.au/sites/default/files/Health%20Series%20No%2053%20-%20Health%20status%20of%20young%20people_in_the_ACT.PDF
[42] H Brown et al., Women's health survey 2017, Jean Hailes for women's health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[43] E Hoban, The women's health utilisation study, Women's Centre for Health Matters, Canberra, 2018.
[44] Ibid
[45] Ibid
[46] Ibid
[47] Ibid
[48] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.

married had children.[49] Welch et al found that women must negotiate participation in healthy behaviours in a large qualitative study of women in Victoria.[50] Only a few women in that study were able to defer responsibility of child minding to their partner, enabling participation in health behaviours.[51] Most women were not able to negotiate their role, which made it difficult to maintain their weight.[52] When mid-age women were asked about health and health behaviours, they reported being involved in an ongoing negotiation between their family caring role and the need to look after themselves.[53] Some women mentioned that it had been so difficult to establish a routine of exercise or healthy eating that they had given up in frustration.[54] Similarly, women who were larger bodied reported having to put the needs of their family first. If their partner wasn't supportive, as in they didn't want to eat healthy food or weren't willing to listen to their problems, it was difficult to maintain health behaviours.[55] Having an unsupportive partner also limited childcare or family minding opportunities reduces women's ability to maintain weight.[56]

Women that describe their relationship as unequal reported doing less physical activity than women who were in an equal partnership.[57] Women's Health Victoria found that women are 2.5 times more food work than men. Those that reported that time was a significant barrier to eating healthy were less likely to meet nutritional guidelines.[58]. Food work takes a significant amount of time as it has multiple parts. All parts (shopping for food, preparing food, cooking food, and cleaning up) take time, preparation, and organisation, and are necessary for healthy meals.[59]

Being a parent of young children was identified as a barrier to health behaviours,[60] and is when women take on the most stress and responsibility in their lives.[61] In a large cohort of participants aged 18-64 years old, Nomaguchi and Bianchi found that men were doing an hour more of physical activity than women after having children.[62] Bellow-Ricken and Rhodes concluded that women swap leisure activities for domestic duties, negatively impacting the amount of physical activity they were able to participate in.[63] Chang et al found that mothers often put the health of their children over their own health, which negatively impacts participation in health behaviours.[64] Women can also be influenced by the unhealthy foods consumed by the rest of the family, or

[49] H Brown et al., Women's health survey 2017, Jean Hailes for women's health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[50] N Welch et al., 'Women's work. Maintaining a healthy body weight', Appetite, vol. 53, 2009, pp. 9-15.
[51] Ibid
[52] Ibid
[53] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
[54] Ibid
[55] M W Chang et al., 'Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers', Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.
[56] N Welch et al., 'Women's work. Maintaining a healthy body weight', Appetite, vol. 53, 2009, pp. 9-15.
[57] E Annandale & A Hammarstrom, 'Gender inequality in the couple relationship and leisure-based physical exercise', PLoS ONE, vol. 10, no. 7, 2015, pp. 1-10.
[58] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[59] C A Bisogni, M Connors, C M Devine, J Sobal, 'Who we are and how we eat: A qualitative study of identities in food choice', Journal Nutrition Education Behaviour, vol. 34, 2002, pp. 128-139.
[60] K M Nomaguchi and S M Bianchi, 'Exercise time: gender differences in the effects of marriage, parenthood and employment', Journal of Marriage and Family, vol. 66, no. 2, 2004, pp. 413-430.
[61] S P Thomas, 'Distressing aspects of women's roles, vicarious stress, and health consequences', Issues in Mental Health Nursing, vol. 18, no.6, 1997, pp. 539-557.
[63] K H Bellows-Riecken & R E Rhodes, 'A birth of inactivity? A review of physical activity and parenthood', Preventive Medicine, vol. 46, 2008, pp. 99-110.
[63] K H Bellows-Riecken & R E Rhodes, 'A birth of inactivity? A review of physical activity and parenthood', Preventive Medicine, vol. 46, 2008, pp. 99-110.
[64] M W Chang et al., 'Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers', Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.

consume leftovers to reduce waste.[65] Australian researchers found there was no correlation between preparation of healthy family meals for school aged children and being time poor.[66] In contrast, Bellows-Riecken and Rhodes found that both genders of parents were found to have barriers such as time and fatigue, but mothers cited poor partner support and limited child minding opportunities as significant barriers to doing physical activity.[67] Additionally, Brown et al observed that life events such as getting married, having children, and starting work reduce young women's (20-27 year olds) ability to participate in physical activity.[68] Yarwood, Carryen and Gargen put it simply that "socially constructed gender roles appear to strongly influence women's health behaviours." [69]

Women in Australia take on much of the caring responsibilities of children, grandchildren, and elderly parents.[70] Most of these women are in the "peak working years of 35-54 years" which has a major impact on their paid employment[71] and on their ability to maintain healthy behaviours.[72] The National Child Development Study asked women aged 55 years about their caring responsibilities and how that impacted on their lives. It found that women who were caring for grandchildren and elderly family members for more than 10 hours per week were less likely to rate their health as very good or excellent, and that they had less energy compared to those who had caring responsibilities for less than 10 hours per week.[73] Many of the women who were in a Canadian study about the "sandwich generation", caring for children and elderly parents, often put other family members' health before their own. They mentioned time as a barrier for physical activity, as they were often busy with caring duties and their days were full of appointments. Several of the women would choose convenient food over healthy food to save time, and they did not have time for other essential health behaviours such as sleep and time for themselves.[74]

Gender and employment

Women who work full time hours while juggling other responsibilities are less likely to be able to carry out healthy behaviours.[75] Women report dissatisfaction in cooking family meals if they have: rigid schedules, inflexible work hours, and if no other family members help prepare meals.[76] In a qualitative study done in the United States that looked at gender differences in parenthood, employment, and healthy eating, Blake et al found that women take on most of the responsibility of preparing and cooking meals, and child minding, even if they work equal hours.[77] With women

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[65] Ibid
[66] M Beshara, A Hutchinson & C Wilson, 'Preparing meals under time stress. The experience of working mothers', Appetite, vol. 55, 2010, pp. 695-700.
[67] K H Bellows-Riecken & R E Rhodes, 'A birth of inactivity? A review of physical activity and parenthood', Preventive Medicine, vol. 46, 2008, pp. 99-110.
[68] W J Brown & S G Trost, 'Life transitions and changing physical activity patterns in young women', American Journal of Prev. Medicine, vol. 25, no. 2, 2003, pp. 140-143.
[69] J Yarwood, J Carryer & M J Gagan, 'Women maintaining physical activity at midlife: contextual complexities', Nursing Praxis in New Zealand, vol. 21, no. 3, 2005, pp. 24-37.
[70] A Page, M Baird, A Heron & J Whelan, Taking care: Mature age workers with elder care responsibilities, NSW, 2009.
[71] Ibid
[72] A C King et al, 'Personal and Environmental Factors Associated with Physical Inactivity Among Different Racial–Ethnic Groups of U.S. Middle-Aged and Older-Aged Women', Health Psychology, vol. 19, no. 4, 2000, pp. 354-364.
[73] M Brown, B Dodgeon & A Goodman, Caring responsibilities in middle age: Evidence from the 1958 National Child Development Study at age 55, Briefing paper, University of London, UK, 2014, retrieved on the 14th of March 2018: https://www.closer.ac.uk/wp-content/uploads/NCDS-caring-briefing-paper-October-2014.pdf
[74] A Steiner, The lived experiences of sandwich generation women and their health behaviours, Theses and Dissertations (Comprehensive). 1722, Wilfrid Laurier University, Canada, 2015.
[75] C E Blake et al., 'Employed parents' satisfaction with food-choice coping strategies. Influence of gender structure', Appetite, vol. 52, 2009, pp. 711-719.
[76] Ibid
[77] Ibid

doing two roles, an employed position and doing all family food work, the food service sector has found a niche market based entirely on ready-to-eat meals for women who are time poor.[78]

Andajani-Sutjahjo et al found that 20 percent of women felt the most important barrier to healthy eating was not enough time due to work hours.[79] A qualitative study by Jabs et al explored how mothers in paid employment used their time in different ways. Researchers found differences in how women engaged with time: some women would actively seek out more time in the day by planning ahead, some were more spontaneous and able to go with the flow of what came up, while others found themselves locked into to a work schedule or pick up times that were rigid.[80] Other research also found mothers in paid employment would cook quick and easy meals and do this by planning, coordination, and prioritisation.[81] [82]

Women in the study by Blake et al chose unhealthier meals if they were fatigued and stressed out due to work responsibilities and inflexibility.[83] Work flexibility is discussed in a paper by Malbon and Carey, where they cite it as a cause for work-family spillover.[84] Work flexibility, they discuss, benefits the employer, where work time takes over hours which would usually be taken up by health behaviours.[85] In addition, Malbon and Carey point out that time pressures to fit more tasks into less hours may cause a reduction in health behaviours.[86] Participants in Devine et al's study on both genders discussed the difficulties of preparing home cooked meals due to time constraints.[87] The participants mentioned working long hours or doing shift work leading to being too fatigued or limited in time to cook or prepare healthy food, which led to unhealthy food choices.[88] Au, Hauck & Hollingsworth found that mid-age women who work longer hours have less time in the day to participate in health behaviours such as physical activity and healthy eating.[89] Grace et al found that income, and work-family spillover influenced participation in physical activity for women who were returning to work after maternity leave.[90]

Being a low income earner

Families with a low income had reduced access to healthy food and different priorities such as such as whether they can afford food, and is it going to be healthy enough. Families with higher income and higher access to food were thinking more about quality of food such as organic food and red meat.[91] The combination of high food prices with low income means households are using

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[78] D Goodman & M Redclift, Refashioning Nature: Food, Ecology and Culture, Routledge, London, 1991, cited in J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2009.
[79] S Andajani-Sutjahjo et al., 'Perceived personal, social and environmental barriers to weight maintenance among young women: a community survey', International Journal of Behavioural Nutrition and Physical Activity, vol. 1, no. 15, 2004, pp. 1-7.
[80] J Jabs et al. 'Trying to find the quickest way: Employed mothers' constructions of time for food', Journal of Nutrition Education and Behaviour, no. 39, 2007, pp. 18-25.
[81] Ibid
[82] C M Devine et al, 'Work conditions and the food choice coping strategies of employed parents', Journal of Nutrition Education and Behaviour, vol 41, no 5, 2009, pp. 365-370.
[83] C E Blake et al., 'Employed parents' satisfaction with food-choice coping strategies. Influence of gender structure', Appetite, vol. 52, 2009, pp. 711-719.
[84] E Malbon & G Carey, 'Implications of work time flexibility for health promoting behaviours', Evidence base, issue 4, vol. 2017, 2017, pp. 1-17.
[85] Ibid
[86] Ibid
[87] C M Devine et al., 'Sandwiching it in: spillover of work onto food choices and family roles in low-and moderate income urban households', Social Science & medicine, vol. 56, 2003, pp. 617-630.
[88] Ibid
[89] N Au, K Hauck & B Hollingsworth, 'Employment, work hours and weight gain among middle-aged women', International Journal of Obesity, vol. 37, 2013, pp. 718-724.
[90] S L Grace et al., 'Health-promoting behaviors through pregnancy maternity leave, and return to work: effects of role spillover and other correlates', Women & Health, vol. 43, no. 2, pp. 51-72.
[91] J A Wolfson et al., 'What does cooking mean to you?: Perceptions of cooking and factors related to cooking behavior', Appetite, vol. 97, 2016, pp. 146-154.

a greater percentage of their income to buy food.[92] A few studies have compared income to "food baskets" and found those relying on welfare need to spend an average of 40% of their income on healthy food to meet Australian Healthy Food Guidelines.[93] [94] A report by ACTCOSS highlights that some families are having to choose between paying for food and essential services such as heating.[95]

Williams, Germov & Young noticed that mid age Australian women from working class backgrounds participated in less physical activity and were of heavier weight compared to mid age women from middle or upper class backgrounds (participants self-selected class categories).[96] Working class women may have less disposable income to participate in weight loss programs or exercise regimes.[97] Working class women are likely to be doing shift work, multiple jobs, working longer hours, or spending all day on their feet.[98] [99] Fatigue was one of the main reasons women with low income didn't participate in physical activity.[100] [101]

"Double Jeopardy" is a term that has been used to describe the interplay of cultural diversity and gender which often leads to lower income levels.[102] A report from Women's Health Victoria discussed the intersectionality of CALD women and lower socioeconomic status, reporting that they had high unemployment rates or were working where they could easily be exploited.[103]

Infrastructure

Environment has an impact on health and health behaviours. A study by Carroll et al found that increased public open space and walkability had an impact on whether people used the space, and was associated with lower diabetes health markers and lower rates of obesity.[104] Astell-Burt, Feng and Kolt also found similar outcomes regarding the inverse relationship between neighbourhood green space and Diabetes Type 2 risk.[105] The Victorian Health study reported that the absence of adequate safe walking paths impacted the ability of women with children to participate in physical activity. They reported using the walking paths while pushing prams to maintain physical activity, however if the paths were damaged physical activity was hindered.[106] Auchincloss and Diez Roux talk about the ways in which physical activity can be part of

[92] C Innes-Hughes et al., Food security: The what, how, why and where to of food security in NSW. Discussion Paper. PANORG, Heart Foundation NSW and Cancer Council NSW, 2010, Sydney.
[93] C Kettings, A J Sinclair & M Voevodin, 'A healthy diet consistent with Australian health recommendations is too expensive for welfare-dependent families', Australian and New Zealand Journal of Public Health, vol. 33, no. 6, 2009, pp. 566-572.
[94] L Barosh et al., 'The cost of a healthy and sustainable diet – who can afford it?', Australian and New Zealand Journal of Public Health, vol. 38, no. 1, 2014, pp. 7-12.
[95] ACTCOSS, Factsheet May 2018: Poverty and inequality in the ACT, retrieved on the 13 of August 2018: https://www.actcoss.org.au/sites/default/files/public/publications/2018-factsheet-poverty-and-inequality-in-the-act.pdf
[96] L Williams, J Germov & A Young, 'The effect of social class on mid-age women's weight control practices and weight gain', Appetite, vol. 56, 2011, pp. 719-725.
[97] Ibid
[98] Ibid
[99] R Hoebeke, 'Low-income women's perceived barriers to physical activity: focus group results', Applied Nursing Research, vol. 21, 2008, pp. 60-65.
[100] Ibid
[101] Cheng et al., 'Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers', Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.
[102] E Greenman and Y Xie, 'Double Jeopardy? The interaction of gender and race on earnings in the U.S', Social Forces, vol. 86, no. 3, 2008, pp. 1217-1244.
[103] K Quinn, Gendered Policy Framework – Gender impact assessment: Financial security, Women's Health Victoria, Victoria, 2008, retrieved on the 10th of August 2018: http://whv.org.au/static/files/assets/2c0a1ea9/financial-gia.pdf
[104] S J Carroll et al., 'Local descriptive norms for overweight/obesity and physical inactivity, features of the built environment, and 10-year change in glycosylated haemoglobin in an Australian population-based biomedical cohort', Social science & medicine, vol. 166, 2016, pp.233-243.
[105] T Astell-Burt, X Feng & G S Kolt, 'Is neighborhood green space associated with a lower risk of type 2 diabetes? Evidence from 267,072 Australians', Diabetes Care, vol. 37, no. 197, 2014, e201.
[106] VicHealth, Physical activity across the lifecycle, Victoria, 2017, retrieved on the 22nd of January 2018: https://www.vichealth.vic.gov.au/media-and-resources/publications/life-stages

neighbourhoods and the people that live there. The researchers found that availability of open spaces helps to promote physical activity. In addition, researchers found that if neighbourhoods are safe, look nice, and there are people doing physical activity they will attract people that enjoy doing the same physical activity.[107]

Feeling safe is necessary for women to want to access public space. Data from the WCHM Safety Map tool shows that women feel unsafe when lighting is poor, when areas that they are accessing are deserted or when they see someone who looks like they may be a safety risk.[108] Women also feel fear of walking outdoors in general[109] and especially if there is poor lighting and if they fear entrapment.[110] Feeling safe and secure, which relates to the impact of crime and fear of crime, can impact on healthy physical activities.[111] Women with lower socioeconomic status are more likely to perceive neighbourhood safety as a barrier for physical activity.[112] A review by Sallis et al also concluded that “disadvantaged neighbourhoods had poorer aesthetics and worse conditions related to traffic safety and crime safety” which prevented active transport.[113] In the ACT however, the “salt and peppering” of lower income households mean that there are almost no suburbs where the majority of households are disadvantaged. Instead, there are smaller pockets of disadvantage in areas smaller than a suburb in size, making geographic areas of disadvantage less visible in the ACT.[114]

A Queensland government initiative to encourage women to participate in physical activity recommends female-friendly facilities.[115] They acknowledge that women need to have appropriate infrastructure, such as female toilets and changerooms, adequate carpark lighting, antibullying policies in place, and a known non-threatening culture.[116]

Areas where there are limited supermarkets or fruit and vegetable grocers, but instead have takeaways and places to buy junk food, have been named food deserts. Food deserts impact the diets of those that live in the area[117] and can have significant repercussions for those on low incomes.[118] A report investigating food insecurity in the ACT/NSW area found that there were significant barriers to access healthy food. Travelling to pick up groceries was shown to be difficult. Participants in the research mentioned not having access to a car, and the cost and reliability of public transport, reduced their ability to buy cheaply in bulk.[119] Coveney also found that women

[107] A H Auchincloss et al., ‘Neighborhood resources for physical activity and health foods and their association with insulin resistance’, Epidemiology, vol. 19, no. 1, pp. 146-57.
[108] E Davidson, WCHM safety mapping data (unpublished), Women’s Centre for Health Matters, Canberra, 2017.
[109] C G Roman & A Chalfin, ‘Fear of walking outdoors: A multilevel ecologic analysis of crime and disorder’, American Journal of preventative medicine, vol. 34, no. 4, 2008, pp. 306-312.
[110] C Boomsma & L Steg, ‘Feeling safe in the dark: Examining the effect of entrapment, lighting levels, and gender on feelings of safety and lighting policy acceptability’, Environment and behaviour, vol. 46, no. 2, 2012, pp. 193-212.
[111] VicHealth, Physical activity across the lifecycle, Victoria 2017, retrieved on the 22nd of January 2018; https://www.vichealth.vic.gov.au/media-and-resources/publications/life-stages
[112] H Brown et al., Women’s health survey 2017, Jean Hailes for women’s health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[113] J F Sallis et al, ‘Income disparities in perceived neighbourhood built and social environment attributes’, Health & Place, vol. 17, 2011, pp. 1274-1283.
[114] R Tanton, R Miranti & Y Vidyattama, Hidden disadvantage in the ACT: report for ACT anti-poverty week, ACTCOSS & NATSEM, Canberra, 2017.
[115] Department of National Parks, Sport and Racing, Start playing stay playing, Queensland Government, Queensland 2013.
[116] Ibid
[117] N I Larson, M T Story & M C Nelson, ‘Neighborhood environments: disparities in access to healthy foods in the US’, American Journal of Preventative Medicine, vol. 36, no. 1, 2009, pp. 74-81.
[118] A Mann, Feeding struggle street, University of Sydney, Sydney, 2015, retrieved on the 4th of May 2018: http://sydney.edu.au/environment-institute/blog/feeding-struggle-street-how-australias-hidden-hungry-are-deserted-by-our-food-system/
[119] S King et al. Hard choices: going without in a time of plenty. A study of food insecurity in NSW & the ACT, NSW West & ACT, 2013, retrieved on the 4th May 2018: https://www.anglicare.org.au/media/2850/anglicaresydney_hardchoicesfoodinsecurity_2013.pdf.

had difficulty accessing food if they did not have their own vehicle or public transport was poor. [120] Food insecurity can be increased through limitations of transport, storage, and food skills.[121]

Fear of being judged

Research from the *"This Girl Can"* campaign from Sports England and VicHealth showed that women expressed a "fear of being judged" as a barrier to exercise.[122] [123] The researchers found three themes of "fear of being judged": appearance, ability, and time.[124] When women mentioned appearance as a barrier to exercise, they talked about having a red face, showing their body and how their body looks while exercising (e.g. "jiggly").[125] When discussing ability, they were worried about not being fit or good enough or not knowing the rules. When women mentioned time, they reported feeling judged for spending time away from their family, friends, study, or work.[126] These themes were also found in Victorian women in the Victorian Health survey although were more specific to life-stages.[127] Victorian women were worried about their appearance exercising in public and they also felt they didn't have the right skills to participate in sports.[128] Two in five of the Victorian women surveyed said that they were embarrassed about exercising in public, and the more inactive the woman was, the more likely she was to have those feelings.[129] Only mothers were worried about sacrificing time for exercise.[130]

Feelings of guilt for spending time doing physical activity away from children occurred for midlife women in a study by Yarwood, Carryer and Gargen.[131] Recent Australian research from Jean Hailes found that 24% of all ages of women were "embarrassed with how I look being active" and 24% said that "they were not very good at exercise".[132] Women who rated their weight as slightly overweight or quite overweight were four times more likely to select "embarrassed with how I look being active" than those who said they were about the right weight.[133]

Numerous studies have shown that people who are overweight or obese fear being judged[134], and this is because they have experienced stigma.[135] Danielsen, Sundgot-Borgen and Rugseth found that obese participants felt shame, guilt, and anxiety when discussing exercise.[136] This included the shame of going to places where slimmer, leaner bodies were exercising; shame and

[120] J Coveney & L A O'Dwyer LA, 'Effects of mobility and location on food access', Health and Place, vol. 15, no. 1, 2009 pp. 45-55.
[121] K Rosier, Food insecurity in Australia: What is it, who experiences it and how can child and family services support families experiencing it?, Australian Institute of Family Studies, Canberra, 2011, r[etrieved on the] 14th of August 2018: https://aifs.gov.au/cfca/publications/food-insecurity-australia-what-it-who-experiences-it-and-how-can-child
[122] Sports England and FCB Inferno· *This girl can*; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[123] VicHealth, Media release: This girl can inspires VIC women to get moving, Victoria, 2018, retrieved on the 5th of September 2018: https://www.vichealth.vic.gov.au/media-and-resources/media-releases/this-girl-can-inspires-vic-women-to-get-moving
[124] Sports England and FCB Inferno, *This girl can*; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[125] Ibid
[126] Ibid
[127] VicHealth, Physical activity across the lifecycle, Victoria, 2017, retrieved on the 17th of January 2018: https://www.vichealth.vic.gov.au/lifestages
[128] Ibid
[129] Ibid
[130] Ibid
[131] J Yarwood, J Carryer & M J Gagan, 'Women maintaining physical activity at midlife: contextual complexities', Nursing Praxis in New Zealand, vol. 21, no. 3, 2005, pp. 24-37.
[132] H Brown et al., Women's health survey 2017, Jean Hailes for women's health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[133] H Brown et al., Women's health survey 2017, Jean Hailes for women's health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[134] M H Schafer & K F Ferraro, 'The stigma of obesity: does perceived weight discrimination affect identity and physical health', Social Psychology Quarterly, vol. 74, no.1 pp. 76-97.
[135] R M Puhl & K D Brownell, 'Confronting and coping with weight stigma: an investigation of overweight and obese adults', Obesity, vol. 14, no. 10, 2006, pp. 1802-1815.
[136] K K Danielsen, J Sundgot-Borgen and G Rugseth, 'Severe obesity and the ambivalence of attending physical activity: exploring lived experiences', Qualitative Health Research, vol. 26, no. 5, 2016, pp. 685-696.

guilt if they stopped exercising; and shame, anxiety, and embarrassment if they did not have the skill to follow through with a particular type of exercise.[137] Additionally, Schafer & Ferraro have found weight discrimination "is harmful, increasing the health risks of obesity associated with functional disability."[138]

Murray discusses in her self-reflective piece, society's constant judgment of "the fat women,"[139] where society continues to think of the fat person as "slothful, lazy, weak-willed, unreliable, unclean, unhealthy, deviant, and defiant".[140] However there is a growing body of evidence that maintaining physical activity and healthy eating is far more important than weight loss when looking at morbidity and mortality.[141] [142] Evidence shows that women focusing on weight loss as their main goal are less driven to continue to exercise after a year.[143] Weight stigma and discrimination discourage those who are overweight from participating in healthy behaviours.[144] In addition weight stigma can have severe harmful consequences on the person's sense of belonging, self-love, and self-acceptance.[145]

Women in a study by Smith-Dijulio, Windsor and Anderson discussed the guilt they felt when hearing health messages in the media.[146] Even those that were doing a healthy amount of exercise felt that they "should" be doing more.[147]

Kater, Rohwer & Londre discuss in their paper on school programs that poor body image in girls and women greatly reduces the adoption of healthy behaviours.[148]

> *"Poor body image is associated with dangerous dietary practices and weight control methods and young women are at particular risk of developing disordered eating patterns that affect their quality of life."*[149]

Data published on a social media site about the behaviours of women in Australia shows that "the more worried a woman was about her body image based on what she saw on social media, the lower her skills for eating and relating to food were".[150] Smith also found that women looking up #fitspo, #thinspo, #clean or #weightloss, were linked to higher levels of concern about body image.[151] Other research also complimented Smiths work, highlighting correlations between magazine subscriptions and internalisation of the thin ideal which negatively affects body

[137] Ibid
[138] M H Schafer & K F Ferraro, 'The stigma of obesity: does perceived weight discrimination affect identity and physical health', Social Psychology Quarterly, vol. 74, no.1 pp. 76-97.
[139] S Murray, 'Doing politics or selling out? Living the fat body', Women's studies, vol. 34, pp. 265-277.
[140] Ibid
[141] S J Dankel, J P Loenneke & P D Loprinzi, 'Does the fat-but-fit paradigm hold true for all-cause mortality when considering the duration of overweight/obesity? Analyzing the WATCH (weight, activity and time contributes to health) paradigm', Preventative Medicine, vol. 83, 2016, pp. 37-40.
[142] L Bacon et al., 'Size acceptance and intuitive eating improve health for obese, female chronic dieters', Journal of American Diet Association, vol. 105, no. 6, 2005, pp. 929-936.
[143] M L Segar, J S Eccles & C R Richardson, 'Type of physical activity goal influences participation in healthy midlife women', Women's Health Issues, vol. 18, 2008, pp. 281-291.
[144] J L Mensinger & A Meadows, 'Internalised weight stigma mediates and moderates physical activity outcomes during a healthy living program for women with high body mass index', Psychology of Sport and Exercise, vol. 30, 2017, pp. 64-72.
[145] S Murray, 'Doing politics or selling out? Living the fat body', Women's studies, vol. 34, pp. 265-277.
[146] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
[147] Ibid
[148] K Kater, J Rohwer & K Londre, 'Evaluation of an upper elementary school program to prevent body image, eating and weight concerns', Journal of School Health, vol. 72, no. 5, 2002, 199-204.
[149] Women's health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[150] H Smith, Taps, Likes, tweets and eats, published on Facebook, 2017, retrieved on the 23rd of January 2018.
[151] Ibid

image,[152] and sexualisation and idealisation of unhealthy female body images on Instagram with the hash tag #thinspogram or #fitspiration.[153]

For women, being healthy can be fraught with judgment, shame and guilt.

> "*A thin body type is considered the epitome of beauty and sexual attractiveness and has been linked to social status, health and even moral worth."*[154]

Because western society values the 'thin ideal' body type, women who aren't striving to or have achieved this body type may feel unsuccessful or unworthy. Physical activity and healthy eating are components in a woman's life that can be manipulated to achieve the thin body type.[155]

Chronic disease and physical limitations

WCHM found that many women who had chronic diseases had limitations in their ability to carry out physical activity, and to a lesser extent healthy eating. They experienced often debilitating fatigue and pain and this meant difficulty in other aspects of their life.[156] Women told researchers that the symptoms of chronic disease not only prohibited them from doing exercise, but could make their symptoms worse.

> *"Physical activity has been shown to be both beneficial as well as a source of pain"*.[157] [158]

A study by Bee et al reported that exercise was known to help with chronic pain but people often feared pain with movement and difficulty taking up the activity. Researchers found better participation if the exercise program was individualised, with their disease and treatment options taken into consideration.[159] In *"I don't have the spoons for that…"* women reported that they had difficulty being able to shop for groceries, chop and prepare food, and consume food due to the symptoms of chronic disease. Others said that affordability was the main barrier to a healthy diet, often paying for treatment over food.[160] This has been found in other studies, where medical expenses, such as medications, equipment and health care visits, can make buying food difficult.[161] Steiner found that women who are responsible for caring for their children and an elderly parent have even less time to look after their own chronic diseases, and health behaviours.[162]

[152] E Stice, D Spangler & W S Agras, 'Exposure to media-portrayed thin-ideal images adversely affects vulnerable girls: a longitudinal experiment', Journal of Social and Clinical Psychology, vol. 20, no. 3, 2001, pp. 270-288.
[153] S Carney, Instagram and women's bodies on display, Southern Illinois University, Illinois, 2016.
[154] J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2008, pp. 348.
[155] Ibid
[156] A Hutchison, "I don't have the spoons for that…" The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[157] Ibid
[158] S Wilcox et al., 'Perceived exercise barriers, enablers, and benefits among exercising and non-exercising adults with arthritis: results from a qualitative study', Arthritis & Rheumatism (Arthritis Care & Research), vol. 55, no. 4, 2006, pp. 616–627.
[159] P Bee et al., 'Managing chronic widespread pain in primary care: a qualitative study of patient perspectives and implications for treatment delivery', BMC Musculoskeletal Disorders, vol. 17, no. 354, pp. 1-11.
[160] A Hutchison, "I don't have the spoons for that…" The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[161] [161] E J Walkom, D Loxton & J Robertson, 'Cost of medicines and health care: A concern for Australian women across the ages', BMC Health Services Research, vol. 13, no. 484, 2013, pp. 300-307.
[162] A Steiner, The lived experiences of sandwich generation women and their health behaviours, Theses and Dissertations (Comprehensive). 1722, Wilfrid Laurier University, Canada, 2015.

Women with disabilities also have barriers to maintaining healthy eating behaviours. In a Canadian survey, Hall, Colantonio & Yoshida found that although only 32 percent out of 1,096 participants said they had barriers, 89 percent wanted to improve their eating habits.[163] Environmental and physical limitations were found to be barriers such as being too tired, affordability, lack of desire or willpower, difficult to shop and not enough time for carer to shop or prepare food. Women suggested that they needed greater assistance to improve their nutrition, such as increasing the pension, assistance with shopping or cooking, suitable meals delivered or single portion food boxes.[164]

People with disabilities are far more likely to have social, environmental, and discriminatory barriers to health behaviours.[165] In a study that looked at the physical environment in New York, participants with mobility or sight disabilities were greatly deterred to move in the environment if there were social or environmental barriers. Participants experienced problems with sidewalks, crowds, crossroads, noise, lighting, open manholes and street furniture that made it difficult to move through the city.[166] Those with disabilities who were unable to carry out physical activity increased their risk of comorbidities of cardiovascular disease and diabetes as well as restricting social interaction and improving mental health.[167] Women with disabilities have many barriers to accessing services to assist in physical activity. In research done by the WCHM, women had difficulty accessing gyms due to barriers in transport, affordability, wheelchair access, insufficient opportunities, and poor staff knowledge, training or assistance.[168]

What does work for women?

Feeling good is motivation

Segar, Eccles & Richardson found that mid-age women who participate in physical activity to increase a sense of wellbeing or to reduce stress do more physical activity than women who do it to lose weight or for health benefits.[169] [170] Women who did physical activity to increase a sense of wellbeing or to reduce stress tended to exhibit intrinsic behavioural regulation (self-motivation). In contrast, to those that did physical activity for weight loss or for health benefits, were found to have low intrinsic behavioural regulation and high extrinsic behavioural regulation.[171] Motivation by intrinsic behavioural regulation, which is self-directed and has autonomy, has been found to be more satisfying then motivation by extrinsic behavioural regulation.[172] Even a small amount of

[163] L Hall, A Colantonio & K Yoshida, 'Barriers to nutrition as a health promotion practice for women with disabilities', International Journal of Rehabilitation Research, vol. 26, 2003, pp. 245-247.
[164] Ibid
[165] C E Kirchner et al, 'Designed to Deter. Community barriers to physical activity for people with visual or motor impairments', American Journal Preventative Medicine, vol. 34, no. 4, 2008, pp. 349-352.
[166] Ibid
[167] World Health Organisation and the World Bank, World report on disability, Geneva, 2011, retrieved on the 21st of March 2018: http://www.who.int/disabilities/world_report/2011/report.pdf
[168] A Carnovale, Well, able and mobile (unpublished), Women's Centre for Health Matters, Canberra, 2010.
[169] M L Segar, J S Eccles & C R Richardson, 'Type of physical activity goal influences participation in healthy midlife women', Women's Health Issues, vol. 18, 2008, pp. 281-291.
[170] M L Segar, J S Eccles & C R Richardson, 'Rebranding exercise; closing the gap between values and behaviour', International Journal of Behavioral Nutrition and Physical Activity, vol. 8, no. 94, 2011, pp. 1-14.
[171] M L Segar et al., 'Midlife women's physical activity goals: sociocultural influences and effects on behavioural regulation', Sex Roles, vol. 57, 2007, pp. 837-849.
[172] S Krauss Whitbourne, Motivation: The whys of behaviour, Psychology Today, 2011, retrieved on the 6th of September 2018: https://www.psychologytoday.com/au/blog/fulfillment-any-age/201110/motivation-the-why-s-behavior

autonomy, such as being able to choose the intensity of an exercise, can bring greater satisfaction.[173] Another group of mid-age women in a qualitative study from New Zealand report that they do exercise because of how it makes them feel and how they benefit from it being part of their lives.[174] It helps to increase self-esteem and body image.[175] A national report released by Australian Sports Commission found fun and enjoyment, and for social reasons, were listed as two of the three top motivators for women to do physical activity.[176] Scharff et al reported that there are different motivators for physical activity for younger women and older women.[177] In their study, younger women are more motivated by weight management whereas older women appear motivated by health,[178] both of which may not be sustainable motivators cause they rely on extrinsic behavioural regulation.[179]

Segar, Eccles & Richardson study said that if a woman values doing exercise for wellbeing and how the exercise made them feel, they are far more likely to do it.[180] Parks & Guay describe "values" as principles that drive behaviour which can be given hierarchical worth, therefore people can choose between multiple values when faced with different situations.[181]

They have always done it

Some women in the Smith-Dijulio, Windsor and Anderson study noted that when they were younger, physical activity and simple healthy eating were part of everyday life, and they tried to emulate that in mid-age.[182] They mentioned that there was no one to take them places, so they walked everywhere. They grew their own food, so "eating healthy was easy".[183] In younger adults, healthy parental values positively impact food choices, and young women in particular held values that healthy eating is important to overall health.[184]

Social

Social support has been found to be helpful for participating in healthy behaviours.[185] [186] In a cohort of university students, students found it easier to choose healthy food or participate in physical activity if their friends were also doing it. [187] Additionally, Danielson found that obese participants in his study discussed the benefits of peer support when taking part in an exercise

[173] E A Rose & G Parfitt, 'Exercise experience influences affective and motivational outcomes of prescribed and self-selected intensity exercise', Scandinavian Journal of Medicine and Science in Sports, vol. 22, 2012, pp. 265-277.
[174] J Yarwood, J Carryer & M J Gagan, 'Women maintaining physical activity at midlife: contextual complexities', Nursing Praxis in New Zealand, vol. 21, no. 3, 2005, pp. 24-37.
[175] Ibid
[176] Ausport.gov.au, Ausplay focus Women and girls participation, Australian Government Australian Sports Commission, Canberra, 2017, retrieved on the 1st of August 2018: https://www.ausport.gov.au/__data/assets/pdf_file/0011/665921/34953_Ausplay_factsheet_SODA_access2.pdf
[177] D P Scharff et al., 'Factors associated with physical activity in women across the lifespan: implication for program development', Women & Health, vol. 29, no. 2, pp. 115-134.
[178] Ibid
[179] M L Segar, J S Eccles & C R Richardson, 'Type of physical activity goal influences participation in healthy midlife women', Women's Health Issues, vol. 18, 2008, pp. 281-291.
[180] M L Segar et al. 'Rethinking physical activity communication: using focus groups to understand women's goals, values, and beliefs to improve public health', BMC Public Health, no. 17, vol. 462, pp. 1-13.
[181] L Parks & R P Guay, 'Personality, values and motivation', Personality and individual differences, vol. 47, 2009, pp. 675-684.
[182] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
[183] Ibid
[184] L J LaCaille et al., 'Psychosocial and environmental determinants of eating behaviors, physical activity and weight change among college students: a qualitative analysis', Journal of American College Health, vol. 59, no. 6, pp. 531-538.
[185] Sports England and FCB Inferno, *This girl can*; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[186] L J LaCaille et al., 'Psychosocial and environmental determinants of eating behaviors, physical activity and weight change among college students: a qualitative analysis', Journal of American College Health, vol. 59, no. 6, pp. 531-538.
[187] Ibid

program. [188] Women in Chang et al reported that encouragement from others would be helpful in maintaining any lifestyle changes implemented.[189] Kamimura et al suggested gender specific interventions and social support are important in encouraging physical activity.[190] Other studies have reported that having a partner who supports healthy behaviours facilitates health behaviours in women.[191] [192] [193] Family support is also important in some ethnic groups, where physical activity is easy when done with other family members, but it is impossible without support from their partner.[194] Women use strategies to maintain physical activity and healthy eating by teaming that activity with a social activity, Namogochi et al talks about this phenomenon which is called 'time deepening'.[195] Exercising with a friend[196] or the act of eating together, commensality, can be beneficial in continuing the health behaviour.[197] However, sharing other aspects of food work is not as well researched, although it appears that it has benefits for the women in our study. Moreover, research has shown that women who participated in the recommended amount of physical activity had broader social networks.

Low cost options

Access to low cost options has been essential for those for which affordability is barrier. Furber et al show that outdoor gym equipment in parks can be a fulfilling way to increase physical activity and maintain social connections.[198] Other free organised physical activity events make doing exercise easier: *MEGA Mums* often have free walks or group sessions organised by other mothers[199] and *parkrun* is an initiative that is popular amongst those who enjoy running.[200]

Food banks or food outlets for those who struggle with food budgets are an essential way to gain access to food by many people in Australia. However, food banks are overutilised, with donations not being able to keep up with demand.[201] The Foodbank Hunger report shows that many people are missing out on food when accessing food banks.[202] "Food banks have the potential to improve food security if outcomes when operational resources are adequate, provisions of perishable food groups are available, and client needs are identified and addressed." [203]

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[188] K K Danielsen, J Sundgot-Borgen and G Rugseth, 'Severe obesity and the ambivalence of attending physical activity: exploring lived experiences', Qualitative Health Research, vol. 26, no. 5, 2016, pp. 685-696.
[189] M W Chang et al., 'Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers', Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.
[190] A Kamimura et al., 'The relationship between body esteem, exercise motivations, depression and social support among female free clinic patients', Women's Health Issues, vol. 24, no. 6, 2014, pp. 656-662.
[191] N Welch et al., 'Women's work. Maintaining a healthy body weight', Appetite, vol. 53, 2009, pp. 9-15.
[192] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
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[194] J A Berg, S L Cromwell & M Arnett, 'Physical activity: perspectives of Mexican American and Anglo American midlife women', Health Care for Women International, vol. 23, 2002, pp. 894-904.
[195] K M Nomaguchi and S M Bianchi, 'Exercise time: gender differences in the effects of marriage, parenthood and employment', Journal of Marriage and Family, vol. 66, no. 2, 2004, pp. 413-430.
[196] Ibid
[197] C Fishler, 'Commensality, society and culture', Social Science Information, vol. 50, no. 3-4, 2011, pp. 528-548.
198 S Furber et al., 'People's experiences of using outdoor gym equipment in parks', Health Promotion Journal of Australia, no. 25, vol. 211, 2014, pp. 1.
[199] MEGA Mums, Megamums.com.au, retrieved on the 14th of August 2018: https://www.megamums.com.au/
[200] parkrun Australia, Parkrun.com.au, retrieved on the 14th of August 2018: http://www.parkrun.com.au/
[201] C Bazerghi,et al., 'The role of food banks in addressing food insecurity: a systematic review', Journal of community health, vol. 41, no. 4, 2016, pp. 732-740.
[202] McCrindle, Foodbank Hunger Report 2017, Foodbank, Sydney, 2017, https://www.foodbank.org.au/wp-content/uploads/2017/10/Foodbank-Hunger-Report-2017.pdf
[203] C Bazerghi, F McKay, Fiona H. and M Dunn, 'The role of food banks in addressing food insecurity: a systematic review', Journal of community health, vol. 41, no. 4, 2016, pp. 732-740.

Conclusion

The social determinants of health and a woman’s life role are central to barriers and facilitators they experience regarding health behaviours. Gender roles are a factor in the management of health behaviours for women in relation to negotiation of time and family role responsibility. Socioeconomic status clearly has an effect on women’s ability to manage health behaviours, particularly as a single parent. Fear of judgment is a significant barrier to physical activity and highlights the bigger issue of the constant judgement of women’s bodies. In contrast, women are assisted by social support by their friends or partners to participate in health behaviours. Women more often continue health behaviours in adulthood if they were brought up that way, and if it feels good to them. In conclusion, health promotion should focus on gender and recognise that women are a diverse group with different health needs, barriers and facilitators to health, and therefore may not respond to generalised health messages.

Findings

Demographics

Fifty two participants attended focus groups and interviews over one month. Table 1 shows the percent in each age bracket.

Age	Number	Percent
18-30 years old	13	25%
31-44 years old	21	40%
45-64 years old	18	35%

Table 1: Age of women that attended focus groups and interviews.

Eighty three percent of participants had a qualification at certificate/ diploma level, were undertaking university, or had completed a university qualification.

A high proportion of women in all age groups university qualifications.

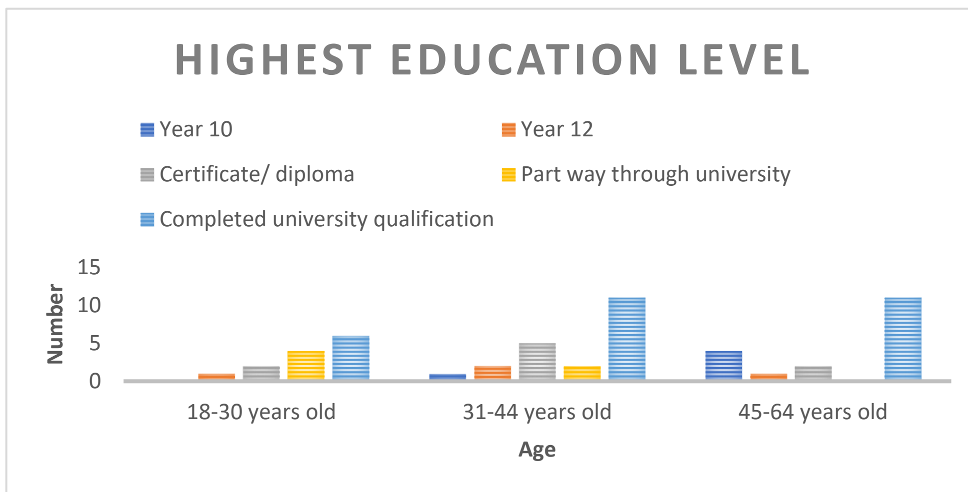

Figure 1: Age groups and highest level of education obtained.

North Canberra was listed as the place of residence for the largest number of participants in focus groups and interviews.

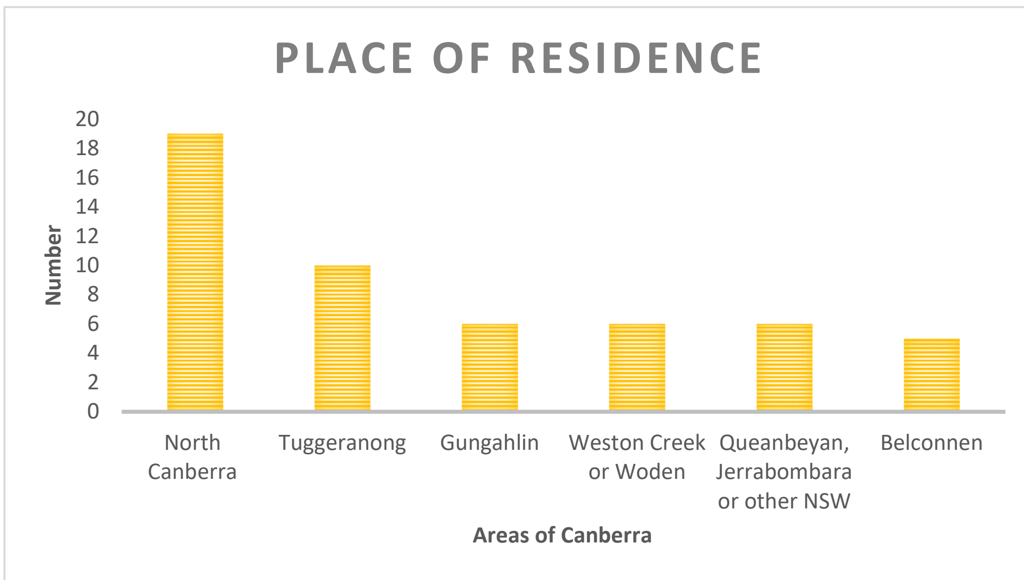

Figure 2: Participants place of residence throughout the ACT.

Importance of healthy eating and physical activity

Participants discussed why healthy eating and being physically active were important to them. Two major themes were found in the responses across most of focus groups and interviews.

Over 75% of participants (n=41) talked about it being physically and mentally good for them and that they were able to do their daily tasks if they kept fit and healthy.

> *"…I just want to stay healthy actually, that's the main thing yeah, and be able to do the things that I want to do without being restricted by my abilities due to poor health."*

> *"…I care about being healthy and feeling well" "…having an active lifestyle and being able to live without disease and illness."*

> *"I think it's important… to have the energy to be a mum and be able to do everything I want to do on a daily basis."*

> *"…for me it's about endurance. It's about being physically and mentally healthy because I can't afford to break."*

> *"I think the fitness side is definitely a mental health thing… I'm not very good at mindfulness, so I practice mindful running."*

Sixteen women also mentioned that healthy eating and physical activity were important in living a long healthy life.

> *"I guess I just want to live longer, I want to see my kids growing and have a family and I want to see my grandchild, if you wish to have one. So yeah I basically would like to live longer for many reasons."*

> *"It's important to me because I've got children and I would like to see them grow up."*

> *"Because, I want to live for a long time."*

In addition to feeling healthy a small number of women (n=7) said that healthy eating and physical activity helped them maintain their weight.

> *"…Its about maintaining what you have not letting yourself – like for me with arthritis you don't want to get too overweight."*

> *"…If I'm over 100kg, I tend to have a lot more health issues. So that's an important thing. But also, I mean, who wants to get really, really fat?"*

> *"I exercise for that and to maintain a healthy weight."*

One woman linked feeling fit to not putting on weight:

> *"I have always stayed fit, cause it's easier to maintain fitness then it is to try and recover if you have kind of put on weight."*

Two focus groups had conversations about the issues with linking weight to health.

Participant 1*: “But I’ve been trying to shift from the mentality like when I’m growing up it was I want to lose weight, that was the main thing. I just don’t want to be fat. And now I’m like no, I want to be like that because I can do things that enjoy, that make me happy. Because I would get up sometimes and be like, if I can’t run around what am I doing? It’s not about – it’s hard to make that shift. Because it’s so no, you can’t be fat. You just can’t be fat for no reason.”*

Participant 2: *“But sometimes they’re just the way they are. They’re big people. But they are healthy. I’ve met a lot of people and yeah, I think in my head that they’re overweight. But they’re really, really healthy. More healthier than I am.”*

Participant 1: *“That’s the thing, because it’s such a thing, for me it’s just like the body dysmorphia. Like how you look. And I’m trying to move it to the – it doesn’t matter how you look. But it’s such a hard shift to make I guess.”*

Participant 3: *“Yeah, there’s differences. You can be larger and be active and healthy.”*

Physical activity

Most of the women that attended the focus group and interviews reported that they participated in physical activity.

Participation in physical activity	Number	Percent
Yes	42	81%
No	10	19%

Table 2: The percentage of women in the study who participated in physical activity.

<u>The value of physical activity</u>

Women said that physical activity gave them on opportunity to make and continue social connections, to maintain an active lifestyle, and they enjoyed the activity.

Eighteen women talked about how much they enjoy being active or doing their chosen sport.

“I enjoy it. I enjoy it more now that I’ve found an activity that I actually enjoy doing if that makes sense.”

“The physical activity I do at the moment I enjoy ‘cause it’s a fun team sport so I look forward to it, and you learn new skills because it isn’t just about running around the block, cause it’s a more technical sport than that.”

“For me it’s just a way of moving and I just enjoy moving my body…Its about finding ways to move and be active and things that I really enjoy, things that make me laugh.”

Fifteen women discussed how important doing physical activity was to maintain and develop social connections with others.

"…that's kind of the social bit for me, it's someone to have a chat with and I think people are supportive if you are seeing the same people each time they are really encouraging."

"That's always been our talk time as well. You know we would talk about our next holiday…."

"There's also a real community with whatever is a sport you do. Even running, which you think of as a solitary sport, there's still a running community. Being able to do something with friends."

Others said that participating in physical activity meant having an active lifestyle as part of their sense of self (n=12).

"For me it's like a basis of who I am. When I am unable to be physically active because to illness or injury or constraints on my time at work or obligations. It feels like a part of my life is being sacrificed and its degrading and it's the foundation of who I am. It's part of my identity. That's what it means to me, it's part of how I engage with the world."

"I like just getting out and doing everyday stuff, carrying your shopping, walking from the car, walking to pick the kids up, doing the gardening, taking the dog for a walk, cleaning. Anything that's just using your body is active and physical activity to me. It doesn't have to be running or swimming which is good too."

Difficulties in physical activity

Although most women reported they were able to work physical activity into their lives they still discussed how hard it was. Women mentioned barriers that impacted their ability to choose when, where and how they exercise.

Time

Time was discussed as a barrier to doing physical activity by 20 women

Work takes priority over physical activity, which means that some women are not doing as much physical activity as they would like (n=9).

"By the time I have done my work, looked after my household, cooked and had some time to breath there's not a whole lot time left in my days. Just finding the time to exercise well is hard for me."

"So I rush work in the morning especially in winter…but at the end of the day you just want to collapse, you have to cook dinner or watch tv. What about during the day at work, we have access to the gym at work, but it's like "well if I don't get this written when will I find the time to do that? It's just so busy. Physically finding the time in a 24 hour day, as well as sleep, work and having some time that I can do what I like doing. Because I don't like exercising."

Four women talked about working longer hours and the impact on their time to do physical activity.

> *"Time, 100%. It's the time. I don't have a stressful job, but I have a job that takes a lot of commitment. I'm not a junior staff member, I'm sort of middle-ish, sort of senior-ish person, and I go to work, I leave the house at 5 to 7, I don't come home till 5.30 or quarter-past 6 or sometimes later. I squeeze in training three to four times a week around that, and I'm a parent, and a lot of things I have had to let go in my life in order to do the physical activity, and this is why I find it hard to do more."*

> *"I think work because we don't really get much of a break at lunch time and I think that that's something they really need to impress upon work places as healthy working practice, particularly in the public service at the moment I notice that people are just getting busier and busier. So, people who used to go for a walk at lunch time won't because the workload is heavy. Because people leave, and they don't replace them, they just say we are going to have a lean and mean team, no buddy you've just going to have a mean team because people don't have time to do the stuff they want to do… The workload is insane, you don't get any incidental exercise at work either. It used to be that you would go somewhere to have a meeting now you're on your phone sitting at your desk. Yeah I think unhealthy practices in work places is a really big issue."*

> *"Workplaces are leading by example and because if you do things in your lunchtime you're sort of at the mercy of what everybody else wants from you around that time. So, if people decided that they're going to have a meeting at one o'clock, you don't feel like you should say, 'Well actually I was going to go for a walk.'"*

Affordability

Twenty women discussed the affordability of doing exercise in a gym setting or with a sporting group as off putting.

> *"going to a gym is an option there but it's … expensive."*

> *"It's really expensive and I'm also a uni student. I thought that money could go towards something like food instead of dancing."*

> *"I do yoga sometimes, maybe once a week. I find it really good but it can be really expensive because it doesn't really work with my schedule to be able to do a regular things where I have to sign up. Paying for casual classes is always going to be more expensive. It's not really feasible to join somewhere where you pay a weekly fee."*

> *"You are looking at $100 for a pair of shoes and you can say you don't need those, but if you are heavier you are going to injure yourself without the right equipment. Or if you are bigger busted and try to exercise without proper support, that's not good."*

Safety

Fifteen women talked about how exercise was difficult when there were less daylight hours. When it is darker they reported feeling unsafe due to poor lighting or isolation.

> *"The darkness actually for me, again I don't have a car, so if I have to get to activities I'm cycling in the dark or the bus might run late or the bus routes aren't good enough, so access to the activities I guess is difficult."*

> *"…there's 24 hour gyms you can go on your own now, but the thought for me was a bit frightening. Just the whole walking from the car park, what if it's just you and one other person? It just didn't feel safe for a woman I guess. I guess, so no, not the right thing at all, those 24-hour ones, yeah."*

> *"A lot of the time I don't feel safe outdoors at night time, by myself exercising… I might go for a run in the evening but I make sure I run in very populated places. .. I don't think my male friend's worry if they go for a run at night time they are going to get attacked or something. Maybe it's a bit dramatic, but it's definitely something I worry about when I go out at night."*

> *"I guess from a women's perspective, I don't feel safe on my own at night-time running through the suburbs or walking even. I have to have my dog with me and even then, it's still questionable running into someone on your own…There is definitely a lack of streetlights, but I don't know if just having streetlights is enough. I think you need more activity around, so there's more people there and it's not so secluded. I don't know how that would be easily changed, but I guess having more light is a deterrent."*

Fear of judgement

Fear of being judged was a theme that was talked about twelve women. They talked about fear of being judged for taking too much time out of work hours and fear of being judged for their appearance.

Women feel that if they look like they are not doing enough work they will be treated unfairly.

> *"It's like at work, my bosses said I want to encourage everybody to have exercise, so you can spend up to two hours a week doing exercise. So I thought, this is great. I'll go out and walk around. And you back to your work desk and everybody's looking at you like, where have you been?"*

> *"I think it's all well and good but I find that it's a bit contradictory. I don't know if this is just my experience. I've worked in the government sector and there's just not a lot of encouragement to leave your desk to go and do healthy activities. So, I find it's a little bit conflicting trying to balance - it's all well and good to say you need to get out more and do active stuff, but then you also need to sit at your desk eight hours a day. That's the message as I read into it..."*

Women talked about the fear of being judged for your body type, age, fitness or background.

"because I'm a person that wears a hijab I feel uncomfortable with males being around… when females are in the gym, they look so healthy and I just feel like so bad looking at that…it's just by seeing people who are really fit, it's just discouraging me, I would just feel bad seeing that, because I'm not flexible, I'm not really fit and that kind of thing."

Weather

Eleven women discussed that environment barriers were difficult to overcome.

"what makes it hard is the weather, cold, obviously."

"There are some days you don't want to get up at 5.30am! The alarm goes off, it's dark, it's minus 4 degrees, I don't want to go out there."

Reducing barriers to physical activity

Women were asked what makes it easy to do physical activity. Women said that even though they had tried lots of different types of sports and fitness activities those who exercised regularly settled on ones that suited their lifestyle, matched the way they enjoyed exercising, and motivated them to return week after week.

Finding what works

Thirty two women said they have found what works for them and how to fit it in around their schedule

"What I personally have to do is eat food at my desk and then use my lunch break to walk around the block a few times and just get out and get some sun. I guess not everyone is willing to do that. That's how I fit it in during the week and then on the weekends, I make sure I take the kids out and do bike riding and walking the dog and in the warmer weather, swimming. So, trying to utilise the daylight hours that people need."

"I think making habits. Being consistent, I struggle with that. Making fitness into a habit, but if you do it consistently then it becomes like brushing your teeth. I've got a gym at work and I try to use the lunchtimes to go down and do half an hour and go back to my desk. It's setting out my clothes the night before."

"I just find with my girls sometimes I am just so exhausted, so that's really good thing about being a swimming teacher is you have to go so at least once a week I have to do some exercise, I get my whole 30minutes a day more than double in the one day."

Women talked about things that motivate one person being a barrier for another. For example, some women find activity tracking to motivational:

I have a garmin, it has step challenges, 10,000 or 20,000 and it's against people, but I don't know these people and we have no communication. But once a week I get an

email saying you can 4th in the step challenge. I don't know who this pool of people is, it's kind of motivating. I think if it was people I knew it would be weirder."

"*I actually have the strava app and I find it really motivating. I possibly am too competitive it definitely fuels me. I do a lot of cycling on and off road and having the strava I can see how I'm doing against my friends and in my cycling groups. There's this thing called queen of the mountain so if you are the fastest person on this particular section you win a virtual cup…. I find it motivating, when I get a notification saying someone has taken that cup I will go out and train to get it back."*

Other women find activity tracking reduces their motivation:

"I actually don't like that. I get a little bit grossed out by competitiveness…"

"that wouldn't motivate me either, it would be a deterrent for me."

A few women acknowledged that there is not a one size fits all.

"And I think a one-size-fits-all approach is sometimes a deterrent. You know, if you join a gym and I don't know if you've noticed, but crossfitters are like Jehovah's Witnesses. Crossfit is perfect for everybody. Anyone can do crossfit. I can tell you, I cannot do crossfit. Crossfit will break me in a moment. But yes, finding the right exercise for each person, whether you have any health issues or not, if you lack confidence in a gym.

Making it social

One of the main themes that is significant is the social aspects of physical activity. Exercising with a friend, a partner, or as part of a club or a group is one of the key motivators for twenty two women. *"Derby has worked really well for that because that's a bunch of women my own age, really good for getting to know a heap of excellent people.*

"I also have friend who likes walking as well… I catch up with her and she bought her dog and we just walked a bit further… so I guess then it's probably one of the things that probably motivates me more thinking about it."

A few women talked about needing support and encouragement.

"when my arthritis isn't flaring up, my friend has this thing where she can take a friend into the gym. So, I message her and say my joints aren't feeling too bad and she says "I'll take you" so having someone there to back you up and make you go, and someone else who is really supportive. They have to be willing to argue with you and that's tough."

Being accountable to someone worked for some women:

"I've only been in Canberra a couple of years. So, I've joined the gym before and I've done things at home like aerobics on the TV or whatever, but I just find that I enjoy exercising with

other people much more and I am much more motivated, you know to be more accountable to it."

One woman talked about how exercising with a group of women from her cultural background would be motivating.

> *"So, we can be Indonesian while we're doing gym for example and we have a speaker [instructor] that [is] Indonesian…So probably encouraging the Indonesian women [to do] more activity because it's more fun for them."*

Low cost options

Nine women talked about needing low cost physical activity options:

> *"On a disability, that's one thing in summer that's really good on a disability pension, the pool is free, so you can go to the pool and so there are some things that are quite affordable with the disability pension that made a difference. I went to a pool three times a week all through summer because it was free, so things like that."*

> *"I think if there was better priced options, because even going to the gym for me at the moment I get a corporate rate through work, which is $25 a fortnight. Which is not terribly expensive, but when I retire I'm not eligible for the corporate rate and it goes up to something like $30 a week and that gets very expensive."*

Some also mentioned the benefits of cheaper options such MEGA Mums and Parkrun, run by volunteers.

> *"We've started doing Park Run, and I found that's been really good. So that's something, its free, you just sign up, you go, its competitive as you want it to be, you can take your dog, you can take your kids."*

> *"I've tried going to some of the MEGA mum activities, the low cost mums exercise group activities."*

Eating well

Most of the women that attended the focus group reported that they ate healthy most of the time, as shown in table 3.

Participation in healthy eating	Number	Percentage
Yes	49	94%
No	3	6%

Table 3: Number of women who participated in healthy eating mostly.

The value of eating well

When participants what eating well means to them, 22 women talked about getting a balance of foods, lots of fruit and vegetables, and as natural as possible. They also talked about flexibility to be able to choose what to eat, to not restrict when they want something “unhealthy”.

> *“I mean I love healthy food but I also love having a pizza or a burger. But I don’t deny myself that, so I think it’s having that balance but just realising that you can’t have that every day, putting everything in the right balance.”*

> *“Eating well means eating mostly unprocessed food and just having treats occasionally and not expecting to eat treats all the time. Plenty of vegetables and just food that's not overly processed with lots of salt and sugar, less packet food. I guess cooking is always better than buying packet food or takeaway.”*

> *“Eating well means to me, I guess, the ability to really consider what you’re putting into your body to make you feel better and eat food that suits you. Because some food, I think, even if it’s meant to be nutrition and healthy doesn’t fit with everyone’s lifestyle and choices, so eating well to me is also about eating fresh if you can, and I guess – and eating food that makes you have the energy to do what you need to do without resorting to sugar all the time, which I can do sometimes.”*

Eight women said that eating well meant having the time, capacity and organisation to be able to prepare and cook meals.

> *“It means being organised. I eat incredibly healthily until I am disorganised then that the end of that.”*

> *“So, for me, again that’s planning, and I don’t do enough about that or shopping. We chuck a lot of rotten food out our fridge because, we have the intentions and then-”*

Difficulties in eating well

The most common barriers that women experienced to eating well were: time, organisation and preparation, the cost of food, and lack of support.

Time, organisation, and preparation

Twenty eight women reported that the time to sufficiently organise, prepare, and cook food for themselves or for a family is a barrier to eating well. Women have said that they often have many competing priorities.

> *"I think I can be a bit time poor, that's part of it being inaccessible… you just want quick and easy options. That sometime doesn't necessarily correlate with unhealthy food but it doesn't feel like that healthy wholesome meal."*

> *"…if you don't plan your meals, go to the shop, buy all the ingredients for the meals - if I come home and there is all the ingredients to a magic healthy meal in the fridge, I will happily prep and cook dinner and eat a good meal. But, if it's not there, I'm not going to the shops…"*

> *"Actually, I find it difficult to eat really well because it usually takes more prep time, takes more shopping time, and you have to be more planned and consider about what you're putting in your food. It's much easier to buy ready-made stuff which is usually garbage or partially garbage. So it might have some stuff which is okay, but the rest of the surrounding stuff is shit."*

A few women were spending more time doing physical activity which meant they didn't have much time to prepare and cook after getting home from work or school.

> *"Time, because I work in "B" and live in "C" and sometimes the drive home takes ages. You know you go to the gym on the way home you come back and you get home and its 7 o'clock, and you don't want to, you know we go to bed early because we get up so early and you don't want to eat late, cause if you eat late then you don't sleep well so you know that sort of makes it hard and some days you're just tired and you just think arhh."*

Affordability

Twenty eight women talked about the cost of food, and having to choose between other non-negotiable expenses.

> *"But I have literally times in my life where I wasn't working full time and I had no money to spend on food, and I remember as a student I would have a bowl of rice for a whole day and that was it. So, I remember there are definitely times where there was physically no money to buy food because you'd have to pay for transport to get to school. So, I understand there are a lot of barriers that can prevent people from - and money is definitely the big one; time and money."*

Choosing between fast food and healthy food is more complicated than just the cost of the food. Some women talk about the amount of money they have at the time they would like to eat as being a deterrent to eat healthy.

> *"And it's very attractive to look at those things that seem cheap, but since you haven't got the $50 to spend on something you're going to go for the cheaper option at the time … even if they are like $70 a kilo compared to $5 a kilo. That was just one barrier which I'd noticed and it's easier to look at say the cheapest like Maccas because look I do have $2 let's go and buy some chips, even though they're greasy and not very good for you. It's food so you won't starve."*

> *"I think just some of the cheapest food, junk food, it's so quick to manufacture. You can get value meals for like $5 and it includes the drink, burger, fries, or sides. It so cheap. If you are looking at it without any knowledge of nutrition, it's just value for money."*

> *"If you go to the supermarket and you want to make a stir-fry for example, you have to buy all these things. And there's the argument that you get left overs but sometimes I can cook one night and then the leftovers just sit in my fridge. If I only use half a capsicum- it will just sit in my fridge for days and I end up throwing it out because I didn't use it. Maybe I'm not home enough or organised enough to plan on when I can use leftovers. I'm really conscious of that waste."*

Below is one women's summation of the difficulties of balancing time and cost:

> *"I always think you either have time and no money, or you have the money and no time. So, you've got to know how to use one. And if you are the sort of person that would have worked really well with money and no time and been able to pay – kind of live that way suddenly finding yourself in the position of time and no money … it's hard to kind of – to learn."*

Lack of support

Nine women discussed difficulty in eating well without support of their family, or partner, or workplace.

> *"You know so we might go to my mums and she will say – Ive got this lovely tea bun. "Mum I don't feel like any." "Oh why, I went to get it specially for you." So sometimes those things."*

> *"To be perfectly honest, eating well means hard work, but if we didn't have [children with] the autism, then for us eating would be really easy cause we would be cooking stir fry with any vegetable that we wanted."*

Five out of the nine specifically mentioned their partners.

> "*My housemates do not [eat healthy], I have a housemate that has been known to eat ice cream 2 or 3 times a day. My partner is not into healthy eating in the slightest, he's*

very much like where is the meat, you said it was in here. So, I am mostly vegetarian, so I only cook when he comes over. But like if I'm going to have a salad for dinner and he says well I'm getting pizza, so I say well if you're getting pizza, I'm getting pizza. That's a big effect."

<u>Reducing barriers to eating well</u>

Women discussed four themes when talking about how they reduced barriers to eating well. Women have tried different things and needed to be explorative and inventive to find what worked for them. Others used grocery shopping as a social outing, and some used cooking with friends as social motivators. Growing up eating healthy had a positive effect on their eating habits as adults. Some women talked about lower cost options would make it easier to eat healthy.

Finding what works by using quick and easy strategies

Twenty women discussed how they make it easier for themselves by managing their time. They cooked ahead of time, menu planned, used slow cookers, bought pre-cut vegetables, and made use of some pre-prepared foods to make good use of their time.

"I often cook in bulk and try and freeze … because I then have days where I just can't do anything."

"I plan out what I'm going to eat every week. I think that helps. It makes it easier because I make time for cooking. I eat healthier."

A few women made comment on quick, easy, and convenient healthy fast food options.

"quick easy options that are healthy for you. I think there has been a bit of a shift… even like the big fast food franchises are trying to have some healthy options. So, I think more stuff like that would make it easier."

"That we have such a vast array of places you can buy food. In the days when I was a kid, we would have takeout and you knew you were having a crap food night, Friday night every second weekend. Now my kids will go driving somewhere for example, and we haven't had dinner and my kids will go can we have sushi or something and I'll go yep no worries, that's a good kind of swap or its just as good as their salad, providing they get a decent sushi or they get meat. I'm pretty happy with Japanese, even when we have our lash out of Thai or something like that I'm pretty happy that its better than Maccas or traditional or Dominos or stuff like that."

Making it social

Social aspects of food preparation, cooking, and eating healthy was discussed by sixteen women. Having others around you that eat healthily has been reported to help.

"…my partner and I enjoy eating healthy. We have set cooking nights and we plan and go to the markets, its social as well, we get coffee and walk around. It's nice, its cold at the moment but it's nice."

"…mum and I go every week. It's a social thing. On Saturday mornings I pick her up on the way through and we go and buy fruit and veg. When I was a student, it was like 3 for $2 and mum would give me the extra one so that was a nice bonus, thanks mum. Then we have coffee together. It's being organised, it's doable. I know that part of my weekend is cooking."

"Another thing that is really beneficial with healthy eating is my group of friends who take it in turns cooking every Wednesday. You are getting a free home cooked meal, it's really nutritious and delicious most of the time. You only have to cook for everyone once every 8 weeks then you get 7 weeks in a row of getting a cooked meal. It's a dinner party kind of vibe but really casual. I think that taking turns cooking is good."

"One of things that worked two years ago I had a mum friend who just couldn't get organised. And so I'd go in… and just help her declutter. And she would help me with recipes… "Look I'm crap in the kitchen. Show me some skills, man."…So even if you can bounce off a buddy . It's whatever works."

Growing up eating healthy

Eight women discussed that growing up on a healthy diet instilled healthy eating patterns now.

"… my parents installed pretty good things for me to eat every day when I went to school. Well, I'll just keep it going, you know."

"I definitely ate healthy because my family did. Although it kind of went in a circle because my Dad especially was quite restrictive when we were growing up. So as soon as I had a bit of agency to eat what I want, I just blew out. In my teenage years I whatever. It's funny because those principles of good eating have come around again. I really value what I put in my body."

"I grew up in a poor family. We had to learn ways of making vegetables and proteins go a long way because there wasn't money for more processed kind of foods. Which got me into some good habits around eating in a balanced way."

"I was lucky I grew up in a family that was very healthy eating conscious, so I think that has driven me on to continue that on now."

"I find at work people will ask me oh have you always eaten this healthy? And I think I have, and I feel quite lucky about the way my mum used to feed us. I'm just eating what I know and that has made it very easy."

Lower cost of healthy food

Eating well could be improved in women's lives if the cost of healthy food was reduced (n=7).

"…cheaper prices on things like, you know, nuts and seeds, nuts can be super expensive. I don't drink cow's milk, so if the other milk was cheaper that would obviously make things easier."

"I suppose the cost of fruit and veggies and meat- if it was lower."

IMPACT OF INCOME ON HEALTH BEHAVIOURS

Women were asked what their gross household income was. Table 4 shows that 38% of the women who participated in the study were from the lowest household (quintile 1) income bracket. Twelve women that had low household income were recruited from an outlet for those who have difficulty budgeting for food.

Gross household income brackets	Number	Percent
$0-$55,000	20	38%
$56,000-$100,000	14	27%
$101,000-$144,000	4	8%
$145,000-$208,000	12	23%
$209,000+	2	4%

Table 4: Gross household income brackets of women that participated in focus group and interviews.

Figure 3 shows that there are more women from the $0-55,000 household income group in the 18-30 year old group, than the other age groups. Most of the 18-30 years old's household income is less than $100,000. Only the 31-44 and 45-64 year old group had gross household incomes of $209,000+.

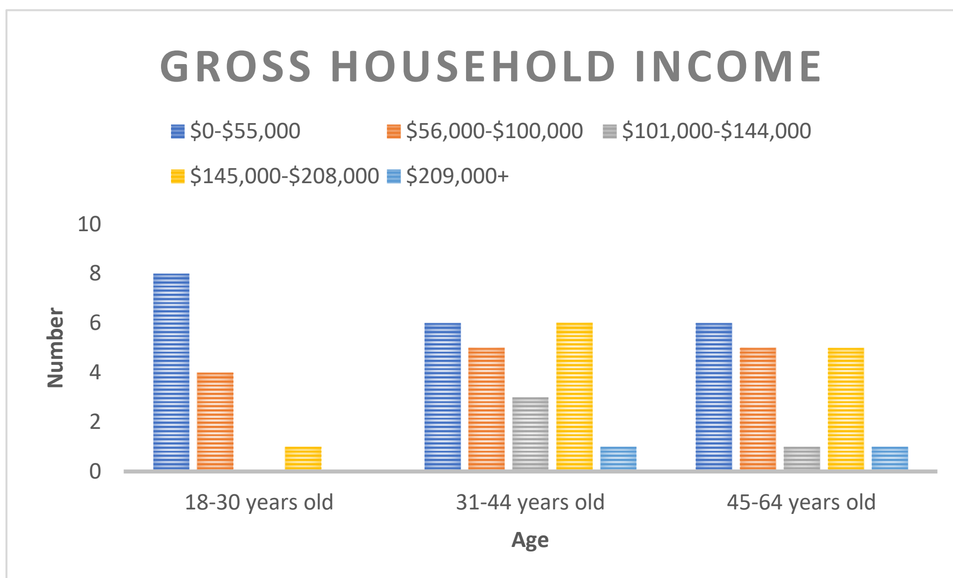

Figure 3: Gross household income of women who participated in the focus groups or interviews in their various age categories.

Physical activity

Most of the women that were in lower household income bracket reported that they participated in physical activity as shown in table 5.

Reported participation in physical activity	Number	Percent
Yes	16	81%
No	4	19%

Table 5: The percentage of women in the lower income bracket study who participated in physical activity.

Differences in reported physical activity between income brackets is shown in the below figure 4. The two lower household income brackets appear to have reported lower physical activity compared to the income brackets over $100,000.

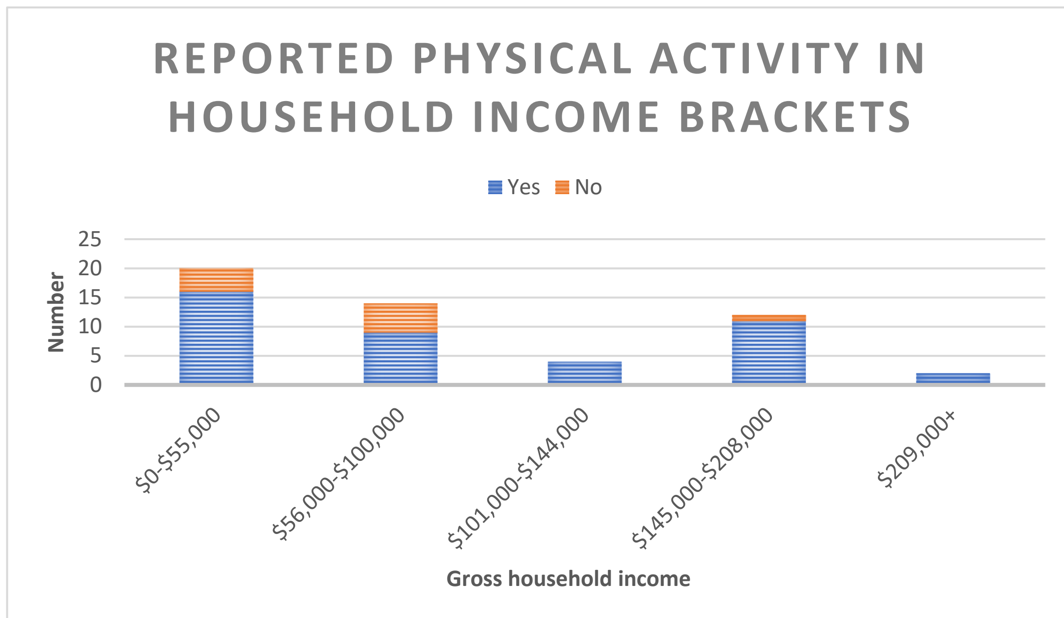

Figure 4: Reported physical activity of women in household income brackets.

<u>Difficulties participating in physical activity</u>

Affordability

The most talked about barrier amongst women that have a household income below $56,000 was affordability. Of the women who mentioned affordability (n=9), two themes were found: cost of the activity, and cost of child minding. Affordability limited their choices in physical activity.

> *"It's really expensive and I'm also a uni student. I thought that money could towards something like food instead of dancing."*

"Every time I say I'm struggling to fit in exercise people say go get a gym membership and do gently stuff. I can't afford that. I think a lot of people my age have a similar problem because it's expensive as hell and unless you have the motivation to take yourself out for a run, or the health to be able to do that, it's really hard. Even going to the pool once a week really adds up."

"I'd say cost. I normally do my own bike-riding, walking. But, yeah, the gym and things, it's just the cost that way too expensive."

Women in the lower household income bracket with children tended to talk not just about the cost of physical activity but the additional costs involved with taking their children to the same activity.

"If there was a pensioner discount, or for people on low income if there were discounts that would make it more affordable. If there was childcare available, for people who have young children, to be able to go. My youngest is four and she's at childcare now, but when I first moved to Canberra I had a four-year-old and an 18-month old, and I had to pay $10 every time I went to the gym for their childcare. So it would cost me $50 a week, plus my gym membership, just to go to the gym if I wanted to take them. So I ended up cancelling my gym membership and not going. I did do a lot of walking with them, I had a double pram, so that was easy for me to do. But if there were subsidies for fitness-related things, whether it's pensioner discounts or childcare subsidies for that particular purpose, that would have been very helpful."

"I went to a pool three times a week all through summer because it was free… it means you can go, because otherwise, it might only be $6 a trip to the pool, but if you want to go three times a week while the kids are at school, that's $18 that might be your petrol, or something, for the week, so you just won't go. It also means that if I take the kids swimming, I'm still free, so I can take them, and it only costs me $9 for both of them as opposed to it being $16 or $17."

Eating healthy

Most of the women that attended the focus group who were in the $0-55,000 income brackets reported that they participated in healthy eating most of the time, table 6 shows.

Participation in healthy eating	Number	Percentage
Yes	19	94%
No	1	6%

Table 6: Number of women who participated in healthy eating mostly.

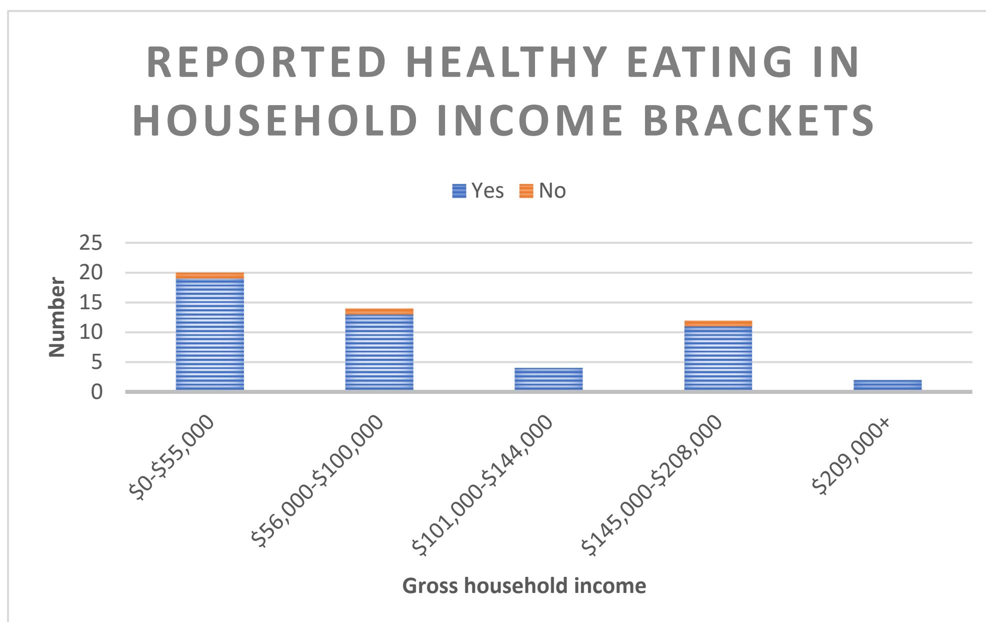

Figure 5: Reported healthy eating of women in household income brackets.

Difficulties in eating well

Affordability

The largest discussed barrier for the lower household income earners was the cost of food compared to their income (n=13).

> *"I mean for example, I'm still living at home, but if I didn't have I'd be on a very very limited budget for like groceries, maybe $10 a week or something. What can you buy for $10 a week?"*

> *"…somethings are really expensive at the supermarket. I don't have a job. When I came to Australia I didn't have much. I don't have enough money to spend on expensive groceries."*

A few women talked about the cost of buying a meal out compared to cooking at home reducing their socialising opportunities.

> *"how do I justify this meal? How do I justify this expenditure when I've got so little income?"*

There appeared to be differences between women on low household income that did not have children and those that did. Those that had children tended to struggle with making the money stretch to feed the whole family

> *"It's so expensive. Like, I don't buy fruit and vegies. Like, I've got three kids: I have a 17-year-old and the two younger ones, and when I go to the supermarket and do my grocery shopping, if I buy fruit and vegies and meat at the supermarket, and I don't buy a lot of other canned stuff, if I buy that, it's $250 a week. If I come to the food bank and I can get my meat and my vegies from the food bank, it'll cost me $150 less a*

week, which means I can afford it. Because on a Centrelink income you can't afford to pay $250 a week at the supermarket. So with three kids to feed, the only way that I can afford to get them vegetables at every meal and meat three times a week, and fruit to take to school, is to come to these places.”

Sometimes that would mean they had to turn to food that had the highest return for the dollar, availability of food, or extending food further to ensure everyone is fed.

“When it comes to preparing a meal, you think, “Okay, well, I’m going to go and get a piece of steak and some vegies,” and you weigh up the cost. And then sometimes it comes down to getting a $5 pizza, them being cheaper. That’s the biggest issue that I find, is just the cost of the food, meat particularly, and being able to get that into your child, as opposed to thinking, “Okay, well, I can get three pizzas a week for $5 instead of one good meal.” And it’s the same with the school lunches: you go to Woolworths and you get what’s on special, not what might be the best for them, because it comes down to cost.”

Access to cheaper food options

Some women found that accessing a service that provided cheap or free food helped them make healthier choices and value food more. They felt they had more opportunity to be healthy by having access to cheap or low-cost fruit and vegetables.

“It’s interesting thinking about the difference now that like I know that we have a tuckerbox, because now as well, like you were talking about variety before. I’ll even just have more variety because it just depends what they have. And you’re like cool, yeah. I’ll try that. And that makes me want to cook, because I’m like okay, I can think something up to put all these things together. And yeah, that makes it a lot easier. And even now I’m just like, what did I do before I was here? It’s so much better.”

“Especially coming to tuckerbox. Because you see so many people needing this outlet. And I’m privileged enough to have some of this, so I don’t want to waste what I’ve got. So I tend to use it.”

“I think if there could be more support for the food banks and for making the services accessible to other people in the community, because it's changed the way we eat at home. With the help of going to the food banks, particularly this one - and there's one other one that's quite good - the fruit, vegetables and meat we now have every meal, or we'll have meat four times a week now. We have vegetables at every meal, they have vegetables in their lunchboxes, and fruit, and that was something we didn't have before we found this food bank. So, I think more support from the food banks and more community education to know where they are, how to access them, and even possibly community-funded transport to get to them. “

The woman from the above statement about food banks goes on to talk about how transport affected her ability to consume healthy food.

"Like, ones like this that are on Saturday you could pick a few people up and bring them back. Because when I was in mental health treatment, I didn't have my car, and I was supplying my own food at that place. I wasn't looking after my kids at the time, but I couldn't get to the food banks and I didn't have any money to go to the grocery store. And I was very hungry throughout my period of time in mental health treatment because my normal thing would have been to go to the food banks, but I couldn't get to them. And I've met a few other people in the same situation as me, and if there were services, like a bus that could pick people up and bring them at a certain time and let people know they're available, something like that would make a really big difference to people who are going hungry when they don't have to."

One woman talks about barriers to accessing food when cost is high.

"It's also not practical to go to the shops all the time. I live 2 minutes from the IGA which is why I picked the place so I can hobble there. They have got a good selection of fruit and veg but it's so much more expensive…the nearest one [bigger shops] is in the next suburb. I have to get the bike out and ride. I can hobble on walking stick to IGA. And carrying it back is a huge one."

Food storage

Although not a widely talked about subject in the focus groups, the impact is high on the few women that experience difficulty with food storage. Not having access to good food storage facilities meant that they were limited in the choices about how they ate.

"But if you don't have somewhere to keep your food fresh and you don't have somewhere to cook your food or ability to cook your food, it's really really hard eat healthy. I mean, I struggled to eat healthy when I was living in my van… you just ate what there was to eat. And it was a healthy choice, because it was a choice between starving and eating."

"It's all good if you actually have a freezer that you can put something in…I'm using two tiny, tiny fridge/freezers at the moment, and I only have the second one on for freezer space. And by the time I get a loaf of bread in there, I kid you not, I can't fit anything else in. So, cooking and freezing is not an option for me."

"Same as me as well: we don't have a big freezer, and then I also have my baby food, and I also pump milk for him. So a lot, more than half of the freezer, is meant for him, so a lot of times I also have to cook from fresh and scratch."

IMPACT OF AGE ON HEALTH BEHAVIOURS

Physical activity

Figure 6 shows that 6 women who are aged 45-64 years old report that they don't participate in physical activity.

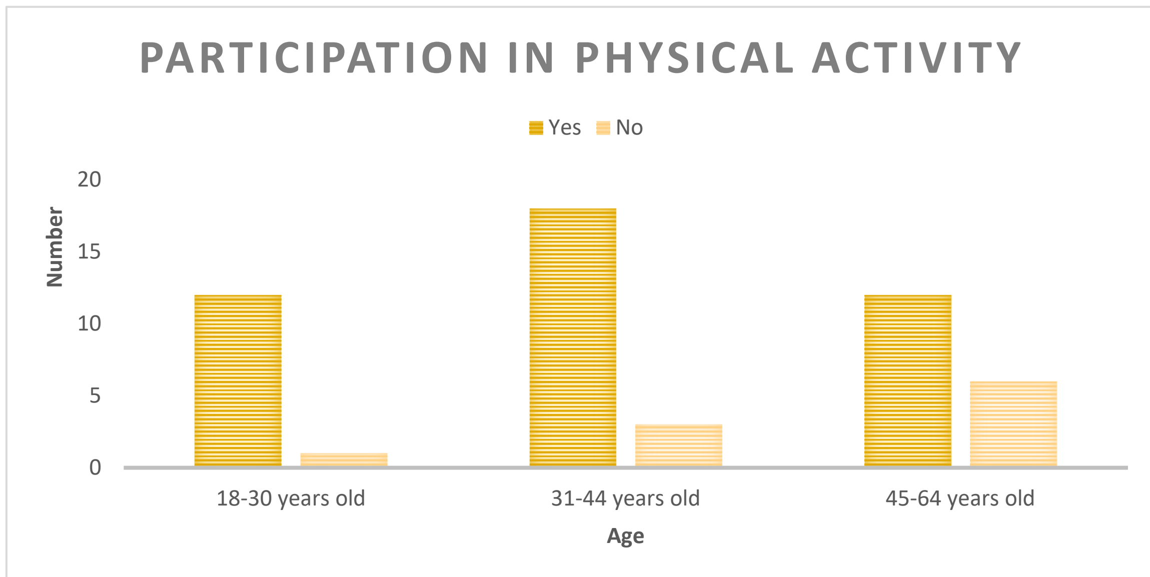

Figure 6: Reported participation in physical activity by different age groups.

<u>Barriers to participating in physical activity</u>

Both the younger and the older age groups talk about similar barriers.

18-30 year old group talking about cost as a barrier for doing physical activity:

> *"I don't like to have a gym membership because it's expensive."*
>
> *"I've never actually tried a gym in terms of membership, but I've done trials and I know me personally that I wouldn't make full use of it in terms of how much it costs."*

Talking about time as a barrier for doing physical activity:

> *"Just finding the time to exercise well is hard for me."*

45-65 year old group talking about cost as a barrier for doing physical activity:

> *"Like if it's a gym or something and you've got to keep that up, but you could be out for two months. Like, its hard to justify the cost when you are not going to use it in the way that they're saying you will get the best benefit from it."*
>
> *"Cost is often a barrier. It works two ways for me. Either I pay for it so I want to go or I wont even sign up in the first place."*

Talking about time as a barrier for doing physical activity:

"I don't do it much. When I do, do it, I really enjoy it, but I definitely don't make the time for it. And in the past when the time has been right for me to do it, it isn't the right time for anyone else."

Safety

Safety was a concern of women who wanted to exercise outside. While it was discussed by various age groups, those that were aged between 18-30 years old mentioned it more than the older groups, 9 compared to 6 participants.

"I live in Hackett and I wouldn't even walk to the shops and they are like 5 blocks down. It's just pitch black."

"No it's not [a lit suburb]. I can't run in my suburb. I normally would drive to the lake. Even then, in the winter, I still wouldn't run after like 7:30… after that I just wouldn't do it."

Eating well

Women who reported that they ate healthy mostly is in the below figure 7. Participants aged 45-64 years old were more likely to report that they didn't eat healthy most of the time.

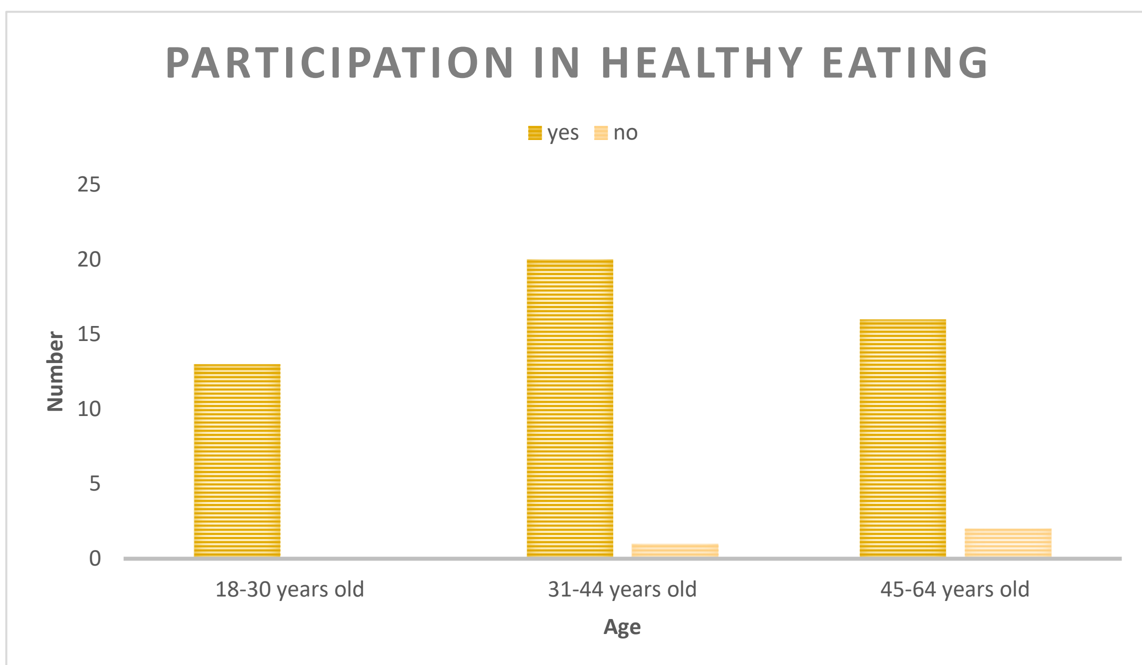

Figure 7: Reported participation in healthy eating by different age groups.

<u>Difficulties in eating well</u>

Similar themes came up between the age groups.

18-30 year old group talking about cost as a barrier for eating well:

"for a single person that's a lot. I was a shock moving out."

“In terms of cost, fast food is pretty static, whereas fresh fruit and vegetables goes with the season. There are certain times throughout the year where things are so expensive.”

“Cost and time, if I havnt had time to make lunch then at lunch time, I work in the burbs and the cost of getting something cheap and easy from the supermarket is much cheaper than going fruit and veg store which I would then have to make a salad with at work. Its not practical.”

Talking about time as a barrier for eating well:

“My biggest barrier is time to do cooking and plan and do groceries. I get home- leave the house before 7am and I often get home at 7 or 8pm…once a week I plan that meal [tv dinner]. Time is a big deal and if I’m stressed I don’t eat healthy.”

“But that’s taken years, it’s a huge cost in time and need to educate myself [in culinary skills].”

45-65 year old group talking about cost as a barrier for eating well:

“Supermarket is really expensive. If I had a job and a lot of money it would be fine. But the money is a problem.”

“They can’t just give you a lecture “do this, do that” but unless you have the money that day to buy these ingredients it’s not going to work is it…I bought capsicum – its $6.99 for a pack of them. I like avocado and they are $2 each. That doesn’t sound much. If you buy 5 fruits and they are $2 each. That’s one a day.”

Talking about time as a barrier for eating well:

“There is a great market over at Canberra college, on Sunday morning, they are amazing they are just brilliant. I don’t get there because I have church commitments.”

IMPACT OF CULTURALLY AND LINGUISTICALLY DIVERSE BACKGROUNDS ON HEALTH BEHAVIOURS

Sixteen women (31%) from the focus groups and interviews answered yes to "do you speak a language other than English at home, or were you or either of your parents born in a country other than Australia?" Only two women identified as of Aboriginal or Torres Strait Islander background.

Figure 8 shows the differences in household income of women with a CALD background compared to those who don't. The women from a CALD background who participated in the research have lower household incomes than those who are not from a CALD background.

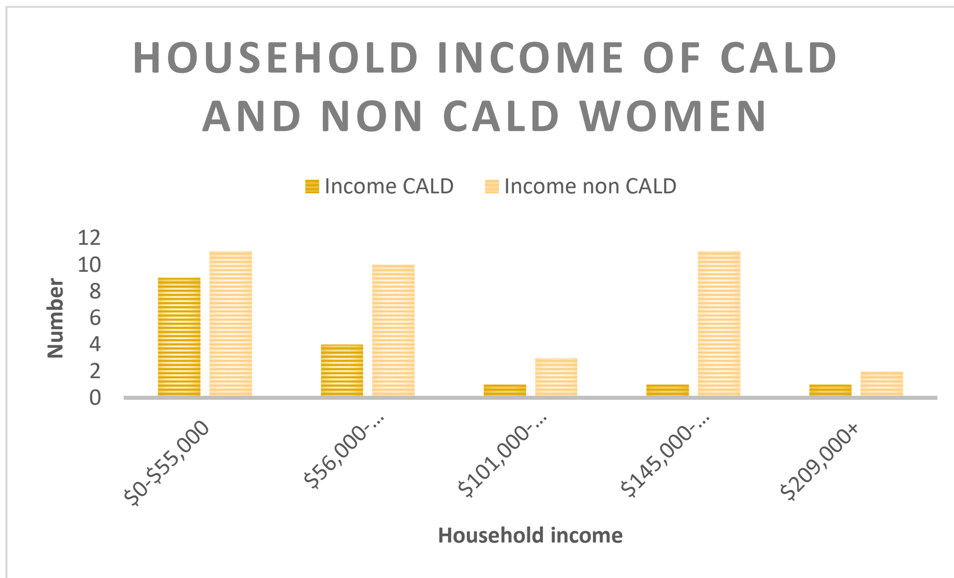

Figure 8: Household income of those with CALD background compared to those who don't have a CALD background.

Eleven women mention that affordability of food makes it hard to eat healthy.

Six women from CALD backgrounds reported that they had a chronic disease. Of the six CALD women that had a chronic disease, five are in the $0-55,000 household income bracket.

> *"I was thinking those food kind of preparation services like Hello Fresh, or like Blue Apron, all your different brands and things they're probably trying to tap into that teach people how to cook well, use ingredients well, but they're cost prohibitive for people who are either on benefits or can't work."*

> *"And then in a food bank also mostly they can help for vegies but it's really hard to find rice because it's not the same kind of rice we eat, so we cook we can't eat it, because it's too hard."*

Six CALD women have children under the age of thirteen years old. Of those six, four are in the lower income bracket for household income.

Two of the CALD women discussed the difficulties of cooking cultural food in healthy ways.

"…I was sort of informed with the benefit of eating healthy, but again I guess a lot of things that somehow prevent me from eating healthy for example, it's just the culture that we have. I'm from Indonesia and the food that we have back home was just all well cooked …so I guess culturally it's also influencing not having healthy eating and I'm aware of that too… I guess strongly influenced by our own culture or lifestyle I would say."

"…healthy food is good for us, yeah. Maybe I'm not good at the healthier food because in my culture, and my husband's culture, we use a lot of oil."

IMPACT OF CARING FOR CHILDREN UNDER THIRTEEN YEARS OLD ON HEALTH BEHAVIOURS

Nineteen women reported that they had children under thirteen years old, as shown in figure 9.

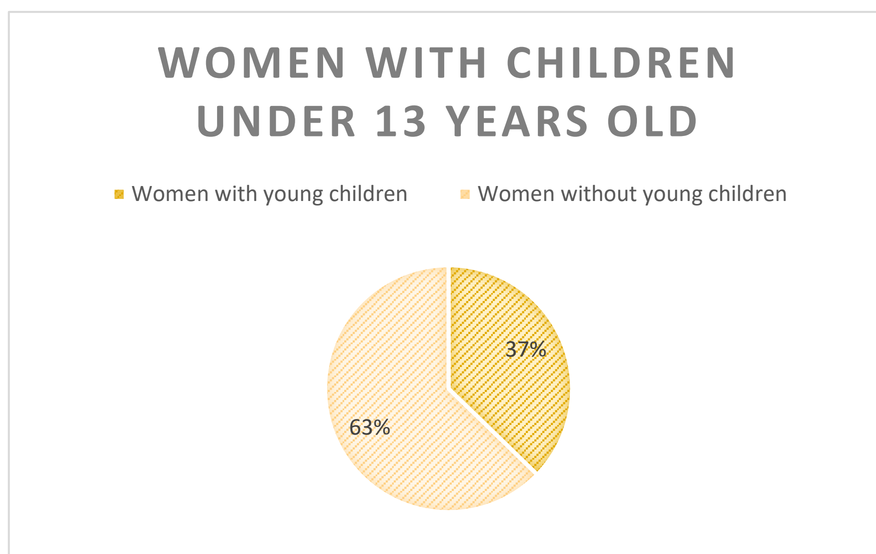

Figure 9: The percent of women with children under thirteen years old.

Most of the women that have children under thirteen years old are in the 31-44 year old group (n=15, 29%).

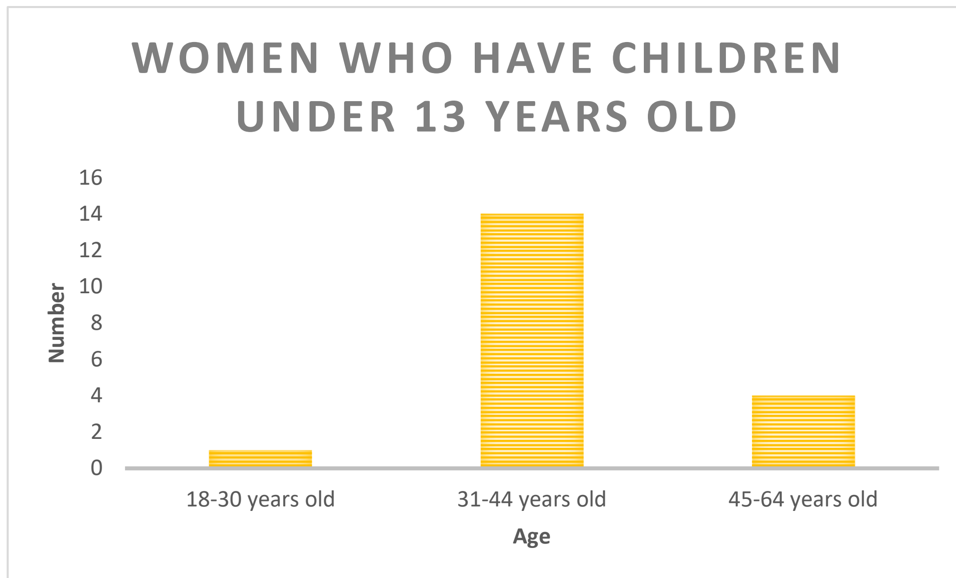

Figure 10: The ages of women who have children under thirteen years old.

Importance of healthy eating and physical activity

Six out of the 19 women who have children under thirteen years reported that healthy eating and physical activity was important because they want to be a good role model for the children.

> *"…because I have a son that needs good example setting."*

> *"…so I try to remain as healthy as I can and positive. And let my children know that, "these are the choices or good decisions that will make you a healthier person, and being active, making good food choices."*

> *"I think healthy eating is important for me to stay fit, for myself but also for my family for my daughter, just important to be around and also give her a good example."*

> *"…I like being a positive role model…I think back, if I wasn't doing a sport what different kind of role model I would be."*

Physical activity

Women report that having young children reduces their ability to do physical activity. Figure 11 shows that women with children under thirteen appear less likely to participate.

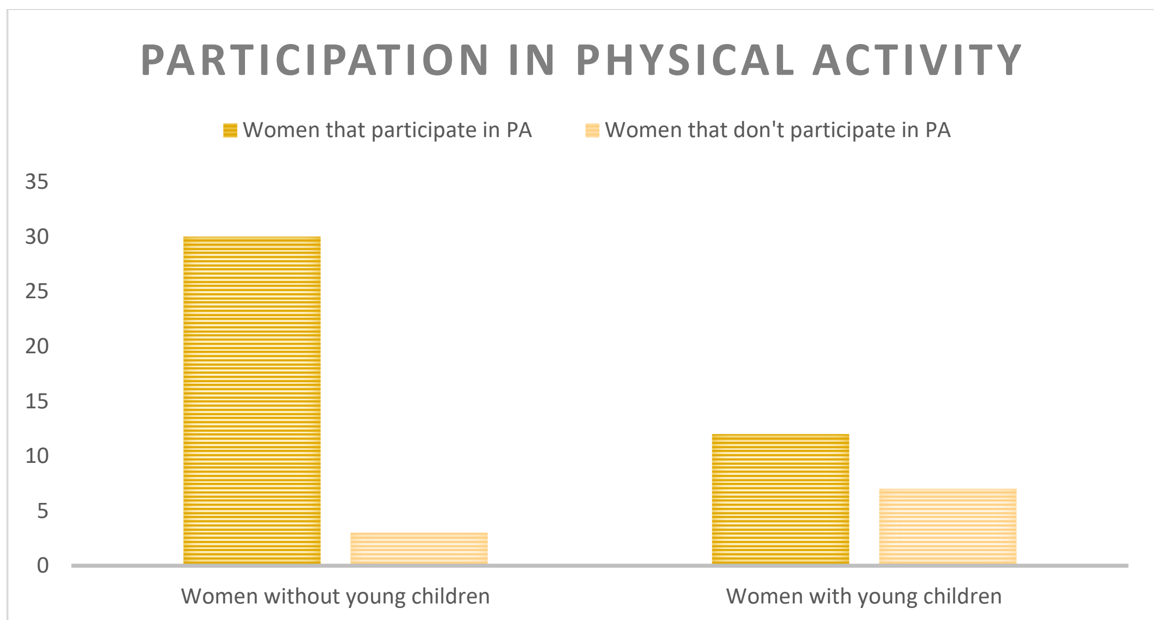

Figure 11: The number of women without young children compared to the number of women with young children who participate in physical activity.

<u>Difficulties in physical activity</u>

Time

Of the women with children under thirteen years of age, eleven women reported that time was a significant barrier to doing physical activity. They reported that they would prioritise caring responsibilities over doing physical activities.

> *"I'm not a morning person. And yeah, I actually I do like – I love to go for a walk at 9:00 o'clock at night or a session or something like that. But, they don't do it, like all the sessions are early in the morning, or right on dinner time or straight after normal work hours, and that's hard if you have a little one, to get to any of those sorts of things."*

> *"I have so many responsibilities, I often have to travel for work. I've got 2 small children, so I can't leave them unattended at homes to do physical activity. The time it would suit me to do physical activity isn't conducive to their schedules. Running a house on top of that. It's really tricky, my priorities … always seem to be furthest down the list in family priorities."*

> *"And having a family, although that's and awesome thing to have its really hard to fit in physical activity if you have kids and you want them to be physically active and you work so yeah that's what makes it very difficult."*

Affordability

Affordability was also a barrier for women with children under thirteen years old, six women talked about how family finances affected their ability to participate in physical activity.

"I tried pilates to recover from child birth, I felt really good but it was really expensive. Our family budget just couldn't sustain more than a few weeks.

"Sport can be expensive. My sport's expensive, gym membership's expensive. At the moment I can't afford a gym membership because kids with braces and orthotics, so if I had more money and more time I would maybe be a member of a gym, even if I just went once a week. But at the moment I'm like, "I'm not joining a gym for $20 to $40 a week if I can only go once a week or even once a fortnight"."

"Cost plays a massive part, especially with increases to utilities. People say if you have a 2-person income family you've got this, that and the other. But for children to play sport, to play soccer is $300 a year for just registration, not equipment. As a parent you put yourself last a lot. Cost is a massive factor."

Reducing barriers to physical activity

Six women with children under thirteen have reported negotiating time to participate in physical activity while their partner looks after the children.

"So I'm like to my partner, you just got to look after him for this hour, I need to go to my class, and that's my de-stress."

"also having an agreement with my husband about prioritising exercise for both of us, its very easy in my circle of friends all of the partners ride and that means the women at home with kids cause you cant chuck the kids on the bike when they are riding up mount Ainslie or what ever they are doing, so it's a big negotiation. So having I guess a good agreement with your partner and sticking to that agreement, we both prioritise that way has been really helpful."

"… the fact that I'm female, even though we live in a fairly progressive. And my husbands pretty good, I still have to say well I go out three mornings a week and that leaves you four that's kind of fair. And initially setting that up especially when our kids were younger was still a bit of a shock to him, "but you're not here", "well you're half of the parenting unit". So that's a massive thing."

Others have a partner who participates in an equal share of domestic work. In response to "is it hard to do physical activity now?", one woman describes this in detail:

"I dance Samba, I work out 3 days a week so that's pretty good. My daughter works out a lot as well and ever since she is little we totally share parent responsibilities totally… we always share it, and now that she is older she goes by herself, cause after school she takes the school bus and goes by herself and one of us picks her up so it means that if she has practice on till 7.30pm, you can go and work out, you can go and do this, ever since she is born that was one thing my mum told us is that you always, always have to have time for yourself, you have to have time for you and your husband, you have to have time for you and yourself and you have to have time for you and your family, because you need to be yourself, you can't just be a mum, or be

his wife, you need to be yourself, that also helps with your mental health. If you're only focused on your family, running around and doing things, you're not going to be happy."

Eating healthy

Most of the women with children under thirteen years old that attended the focus groups or interviews reported participating in healthy eating most of the time, table 7 shows.

Participation in healthy eating	Number	Percentage
Yes	18	95%
No	1	5%

Table 7: Number of women who participated in healthy eating mostly.

Difficulties eating healthy

Time

Fifty three percent (n=10) of women with children under thirteen years mentioned time as a barrier to eating well. However only four of those women specifically talked about their children when mentioning time.

Twelve of the women that have children under thirteen years old are in paid work.

Affordability

All of the women with children under thirteen years old discussed their children's eating habits when discussing their own. One of the barriers women with children talked about is the cost to feed a family. Seven women report this as challenging.

"…definitely things like medical bills when they come up. Some people might have them more regularly but with kids, when they have to go to the doctors, they need specialists, they get sick in the winter, hundreds of dollars can be spent in one week and that's less money you have to spend on buying healthy food. And that's when you need to go, "What can I make with just a packet of something and one vegetable?"

"I'm not going to pay three times as much for a lettuce or whatever just because it's got a fancy label and might be better for me. So, I do resort to slightly cheaper, more faster thing. I'll end up resorting to a roast chook wrap for dinner sometimes or a bowl of muesli."

Cooking for others

Women's ability to cook healthy food becomes challenging when catering for others' wants and desires, particularly young children. Eight women express the difficulties in cooking for others.

"I can meal plan until the cows come home, and then no-one eats the food. You know what I mean? It goes to waste. And so now I'm back now to shopping pretty much everyday because then I gauge the mood."

"And then you've got to cook for R anyway. Yeah I was so bad actually, that's the worst part, I remember being at a school meeting and saying – like, they were talking about diet and I said, "Mate, R had a Light and Easy dinner." That's pretty bad when you're six and you're mum's giving you a bloody frozen dinner."

"Especially for my little son, it's really hard for me. My older son is easy, he can eat everything, but my little one, we eat rice all the time at home but he doesn't like rice. We eat curry, he doesn't eat curry."

"I cook food everyday. I cook for everyone else, ingredients I might … use like brown rice might be replaced by white rice because that's what everyone likes."

Reducing barriers to eating healthy

Family support

A few women talked about how cooking for their family actually helped them eat healthy.

"So, when the kids came along not only do I have to learn sort of semi-healthy stuff, but how to cook at the same time and that's still a challenge, let me tell you."

"…if there's nobody home my meal will probably be cereal or at best a baked potato with something. So, I'm pretty lucky that I've got a family to feed because it helps me be healthier."

Finding what works

Women with children under thirteen years old discussed quick and easy ways of cooking healthy family meals. Eight women have found ways to make their lives easier when cooking for a family.

"It's just that simple step by step ideas that I wish I'd known a lot sooner. Like just really its time poor for me. Its having those just quick, healthy options. I can boil a jug. Even I can do that."

"All the food takes time to make Sudanese food, I make it on the weekend or if my husband works from home he will make it… I bought a slow cooker and it took me a few times to figure it out! So, I brown it the night before and then I have everything ready in fridge and then in the morning I put everything together in the slow cooker… when you get home its done."

"I'm the one who does the cooking in my house, so we actually sit there when I'm putting a shopping list together and go, what meals are we having? It doesn't matter what order you cook in, you know what you are having. I'm not cooking tonight, they are having chicken Ceasar salad."

IMPACT OF HAVING A CHRONIC DISEASE ON HEALTH BEHAVIOURS

Twenty women mentioned that they have chronic diseases that have an impact on their ability to participate in health behaviours. Most of those women did not have children (n=17), had completed or were completing higher education (n=14), and were in the lowest one household income bracket, see figure 12.

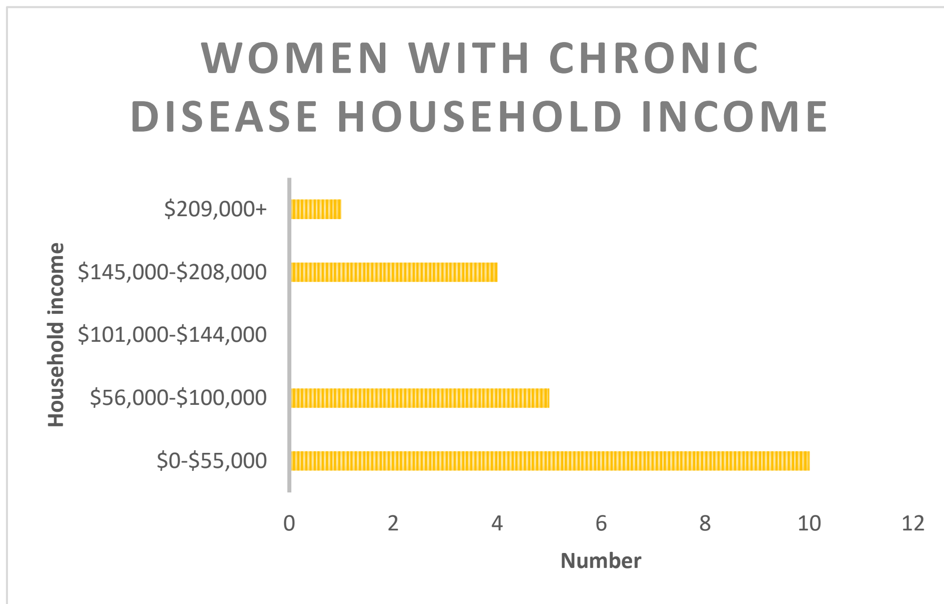

Figure 12: The household income of women with chronic diseases

Importance of healthy eating and physical activity

Nineteen of the women with chronic diseases talked about the importance of healthy eating and physical activity.

They talked about it in a general way, that they wanted to maintain their physical and mental health:

> *"I care about being healthy and feeling well, and I also enjoy active pursuits for leisure to facilitate fun. I care about my health because I care about being healthy."*

> *"Stay fit, is really important for me for my health"*

> *"I exercise for the mental health more than anything. I find the more I exercise the better I feel."*

Eight women with chronic diseases talked about it preventing further illness:

> *"I like to remain active, and healthy choices, because I have to. I have no choice, so I can't - well, I can, you know, but that will contribute to my insulin, blood-sugar highs."*

> *"For those of us who have chronic health conditions, if we can keep on top of diet and exercise, it can actually hold those at bay with the right levels."*

“It helps to prevent other medical issues.”

Seven talked more specifically about working within the limitations of their conditions being a reason why physical activity and eating healthy was important to them:

“I’m on warfarin for life so I have to have constant meals otherwise that’s all out of whack and possible blood clot.”

“So I think once I changed my idea of what movement looked like for me – I did a five minute walk and came home and had that same feeling that I used to get when I did like a little hike.”

A few expressed the worry that they could potentially decline physically, and that would be a detriment to their life:

“I can’t afford to break, it petrifies me”.

A few women had difficulty separating healthy behaviours from weight, even when talking about how healthy behaviours helped to prevent other health issues. A few participants said that healthy eating and physical activity was important as it helped to reduce or maintain their weight.

[healthy eating and participating in physical activity] *“for me it helps to prevent other medical issues, I’m a Type 2 Diabetes so if I’m over 100kg I tend to have a lot more health issues, that’s the important thing but also who wants to get really fat..”*

“And so it’s about maintaining what you have not letting yourself- like for me with arthritis you don’t want to get too overweight.”

Others had a perspective on weight that was more inclusive of diverse body sizes. This was a conversation between women with chronic disease:

“I hate it when people say, yeah, you look – if they look at my body shape and says, “I want that body shape.” I say, “You do not want my body.””

“It’s that – if people are overweight or feel that they’re overweight I say – I want to say to them, “Do you feel happy?” Like mental health is just – “

“That’s right. Yeah. Exactly.”

“And, “Do you feel healthy?” And, “Do you feel strong?” And all those sorts of things are more”

“Yeah. Do you still find joy?”

“- important than whether you’ve got like a flat stomach or not.”

Physical activity

Most of the women that attended the focus group and interviews that have chronic diseases reported that they participated in physical activity as shown in table 8.

Participation in physical activity	Number	Percent
Yes	17	85%
No	3	15%

Table 8: The percentage of women with chronic diseases in the study who reported they participated in physical activity.

Difficulties participating in physical activity

Chronic disease

Women that had chronic disease said that physical activity was important but talked about the difficulties in doing physical activity with a chronic disease (n=9).

> *"I have a whole bunch of trouble with asthma and with chronic pain disorder so knowing whether I've hurt myself or whether it's just that I'm using those muscles and building them up, is something I find difficult."*
>
> *"Nobody else is in your skin, nobody else knows. And I look very capable but, you know, I'm very much like you: if I push myself, then I'm out of action and … I'm injured and it could be anything that get injured the next day. I'm just not going to know until I've pushed myself too far."*
>
> *"So, I think for fibromyalgia, it's hard because the muscle aches and things like that. And walking with a cane… And then sometimes if I've overdone it, I need my cane because sometimes I feel like my leg's going to go."*

Abilities are limited by their chronic disease not by their motivation.

> *"You know the recommended daily is actually 10,000…I know Ill be wiped out if I do 10,000, so my target is down there and if I get that three times a week, I'd be thrilled."*
>
> *"I miss it. I love it and I've always loved it, so I miss not being able to just go and do what I want when I want."*

Some had severe limitations that prevented exercise all together:

> *"I haven't been able to exercise since I was a teenager, but in my workplace I am one in a team of 15, and 13 of them go out walking every day at lunch time. And it would be nice."*

Affordability

Affordability is a major barrier to physical activity. This can be particularly specific to women that have physical limitations who need assistance with exercise.

> *"I always wanted to do it (Pilates). It does one on one helps me set up, listens and understands the fact that I have these chronic things so I won't be doing it at a high level, but I want to do something, but then the cost of that is astronomical and you've*

got all these medical costs over here that are constant, so it becomes like yes exercise is part of the medical, but its definitely not covered."

Reducing barriers to physical activity

Those that have managed to do physical activity discussed finding what works for them, overcoming their limitations, and planning (n=14)

"Joining a posh gym has been really nice … it gives me an indoor exercise option so that if it is too high pollen outside, you know, because sometimes it takes more than it gives. You might get outside and do something, but then you have to go to bed for three hours because everything hurts, you know?"

"I think it's about finding something that you like and kind of sticking with. And I kind of do like a schedule. Sometimes it might change, depending on what I'm feeling when I – because … everyday day is a different day."

Healthy Eating

Most of the women that attended the focus group and interviews that had chronic diseases reported that they mostly ate a healthy diet, as shown in table 9.

Participation in healthy eating	Number	Percent
Yes	19	95%
No	1	5%

Table 9: The percentage of women with chronic disease in the study who reported they ate a mostly healthy diet.

Difficulties in eating healthy

Chronic disease

Ten women mentioned that their chronic disease made it difficult for them to eat healthy. Some talked about how their chronic disease impacted what they ate because they needed to restrict particular foods, and some talked about how depression, fatigue, pain, and immobility made it difficult to choose, prepare, and cook healthy foods.

"And the idea of what most people see as healthy eating, actually I can't. I just cannot eat – if I eat that many serves of fruit and vegetables a day, I would never be leaving my bathroom."

"When I'm badly depressed, food is just there to keep you alive. It's not going to bring you pleasure. It's not going to keep you healthy. You eat food because your hunger gets to the point where it says, you've got to eat something."

Affordability

Fourteen women with chronic disease mentioned cost was prohibitive to choosing healthy food options.

> *"If it was cheaper it would make a difference. Going on about chronic illness, I spend so much money on medication and on extra services like someone to clean the yard because I can't do it. And so there's no room in my budget. Even telling me what veggies are in season so I can buy them for a bit cheaper."*

<u>Reducing barriers to health eating</u>

Quick and easy

Ten women with chronic disease talked about what works for them regarding healthy eating. They had ways to work around their limitations such as buying food that is pre-chopped or pre-packaged and they planned for times that they could be fatigued by having something easy and quick to cook. Shopping for food was also an issue, as some women with chronic disease struggled with carrying the shopping or walking for an extended period of time. They have found ways to overcome this by purchasing online or shopping with others.

> *"…this is something that I do if I'm a little bit exhausted, but have the energy to make something, is I make more than I expect we will eat so that 'hey the leftovers thing'…"*

> "*That was the one that got me through when I was really sick, was gluten free pasta – which I didn't like – but then it was like passata and the basil that comes out of the squeeze tube and a little bit of garlic. At that point I could eat the garlic. As long as I do that really quickly in a saucepan to get the flavours mixing together and then straight onto the pasta with grated cheese and it was ridiculously boring in some ways and also had a lot of flavour, but no effort. And chopped up chicken or whatever was in the fridge at the time. But again, it was that ability to take it to giving you energy in, so that you could then think beyond the immediate of I want to go to bed, but I really should eat."*

Government messaging

The participants were asked how they felt about government and medical health messaging. Women talked about how positive some of the health messages are, however many agreed that some of the messaging was not targeted to them and some messaging brought on feelings of shame. They said that the health messages needed to contain strategies, and need to address societal issues that stop individuals being able to choose healthy options.

> *"You only have to look around to see that it's not working"*

Positive messaging

> *"It is important to get those sorts of messages that are presumably backed by science and supported by programs."*

Twenty three women that they needed messaging to be positive, motivational, and constructive. Women said that positive messaging that showed family interaction, the social aspects of health behaviours and overcoming barriers were motivational and inspirational.

> *"I like that one. Positive statements. Like instead of don't eat badly it says do more activity. It's a bit more positive. "*

> *"Girls make your move campaigns really motivates me. It's like yay this girl is going for a run, good on her and it's just a reminder like, yeah, I should go for a run. They always make it look really fun, it's never like this person in the gym hating myself, it looks fun. So, I think maybe I will call my friend and we'll go for a walk together. It's a government campaign that works."*

> *"I like the girls make your move series because there's such an array of women and they don't look a certain way with the other kind of media propagates that. 'be active to look this way.' Which is quite harmful."*

> *"I think they show different looks, ages, sports. It's not a particular sport they are doing just anything active."*

> *"even like typical male dominated sports. It's good to see breaking down some gender barriers."*

> *"That's [Swap it don't stop it campaign] probably the best one of the lot…because it was like a family and it was encouraging you to get out of the house as a family and do fun stuff together, which has two benefits, which is family bonding and all that, plus health. I thought that was a really good campaign."*

> *"The current one I've noticed is the Girls Make Your Move [campaign] which is obviously aimed at young girls, is my view and I look at the ads and I'm like. 'that shows proper role modelling of young girls doing fun things together, team sports': they're, again, not all freakishly size 6 to 8 which is, you know, a very small percentage of the population.'*

> *"Well it is encouraging and gives me a positive information like the information that probably people need in regards to the importance of health for us, and also the way we could achieve that for example. So, it is very important for me in many ways."*

> *"Well, I like these kind of things (talking about government campaigns) that have been on the TV actually. I think they can put through a message that hey, instead of going to the fast food outlet tonight, maybe I'll change my routine and I'll go and play tennis. And then I'll see how I feel about eating fast food."*

“Even creating a campaign around it, like rather than saying you could do this, you know they have pot luck Tuesday, you could say invite your friends over for a healthy meal, trying to put that culture in place.”

Messaging needs to be meaningful and targeted

Messaging is more likely to catch their attention if it appeals to them and their circumstance. Women need to have messaging that targets the group that they identify with.

“But it’s finding those little hooks and nuggets that appeal to the different groups.”

Participants report that seeing women in health campaigns that look like them is important. The messages need have women that are culturally and linguistically diverse, varying ages and life-stages and with varying levels of socioeconomic status. Twenty women talked about messaging the felt was not for them.

“But I suppose my biggest complaint is that they often don’t reflect people who are not white or families who are not very nuclear, heterosexual, Australian families. That doesn’t really speak to my experience or my social circle. So, I suppose imaging and representation is important…”

“…The members of the community I interact with, English is their second language. They need to be distributed through channels that are not just main stream, English speaking media. As well as having diverse families represented in them making sure that they are more wide spread.”

“Some of the things I hear I think are a bit silly. Like park your car 10minutes further away and walk that extra 10minutes, and I think well that’s fine until your childcare rings up with a vomiting kid and you have got to get back there, sorry that 10 minutes well sure it will turn into a 5 minute run but it’s not always convenient, and I think it’s about particularly women tend to be carers so they’re either caring for little kids or they’ve got kids in school, or they have got elderly parents.”

“If you go to a government website, it tells you how you can eat a balanced diet on a vegetarian or vegan diet, but that’s just not the general message that comes across in mainstream media or just in mainstream advertisement. So, I think that more information on additional options available to different people based on different lifestyles, would be ideal.”

“The idea that it’s as easy as swapping out sugar. That doesn’t work for everyone. I ride to work on an electric bike everyday so that it doesn’t aggravate my arthritis and I do that every day, I do all I can to stay active despite my health problems. It’s really hard to get nutrition advice for someone who has a bunch of different chronic conditions because that’s so complex.”

"I have this automatic reaction and it probably is just a very visceral automatic reaction, which is they can't be targeted to me because I have all these issues that mean I can't do what most of them are saying"

Eight women had not even seen the health promotion campaigns or messages.

"maybe I just didn't encounter at all from the ACT Government"

"I've never seen any of these."

"yeah I think I guess I don't see a lot of it because well I don't watch commercial television but you see a few things on the news when a new study says this, but I guess my media channels are a bit different these days."

Inducing shame and guilt

Nineteen participants talked about the shame and guilt they feel when they see health messaging that is unachievable or body shaming. Some messaging focussed on changing a person's weight, and this was seen as negative.

"But I don't mind my vegetables but I'm still not getting that many on the plate, there's meant to be filled a bit, you know every time I see it…Yeah a bit defeated by it. No I don't do that. It makes me think what are the ramifications of not doing that."

One participant describes government messaging as overwhelming.

"I think it's overwhelming, I think there was one the grabbable gut or something… I was like isn't that kind of negative? I mean it could be like anyone… that's kind of negative and they need to show what else can you do!"

"That's kind of body shaming isn't it."

"So I think that when they do things like this (grabbable gut) it just perpetuates that shame. I think if anything it can, speaking to my friends, that's not the thing that's going to encourage them to eat healthy. It also assumes that it's an easy step."

"Well first and foremost, I think that there is a fine line between advertising healthy bodies and body shaming. So I haven't seen that ad but when you tell me about an ad where somebody is grabbing their gut and saying 'having their gutful' that instantly makes me think about the people that have those body types and whether or not that crosses the line into body shaming them? …I have really overweight siblings, morbidly obese siblings, they would not respond to that. And of course they won't because they haven't in the past, they haven't responded to people talking about their body and their body image, because that's the type of criticism. You need to focus on what someone can achieve or how does it feel by having a better and a healthier lifestyle as opposed to tying it into how they look."

She was worried about the body shaming effect that it may have on younger girls after seeing the "grabbable gut" campaign:

“But you think if a young girl saw that”.

“The grabbable gut one would have caused me so much anxiety as a child. And my daughter, she is quite thin and she still has tummy fat she could grab. I think especially as women, you know, we almost always will.”

Women talked about how messages were focused too much on changing a person’s weight instead of changing their behaviour.

“Too much focus on weight but ideally it’s not about that”

“The thing with ads, like it simplifies it so much that people can interpret it in a way that reinforced bad ideas they already have. As soon as you see the word weight, you’re thinking about in a bad way. Even if they’re trying to put it positively.”

“It’s hard to have a one size fits all, the government will use that because it speaks to the general population and it’s hard to deviate from that. But I think we need to realise that I think the average size is 14-16 for women in Australia. You got back 20 years and that wasn’t the case, you go back to the 50s and women were more robust. They were more curvy, we go through phases as a society as to what’s acceptable. I don’t think as a society we can say that because someone is larger they are not healthy.”

A few were annoyed that government messaging conflicted with work policy and culture.

“I think it's all well and good but I find that it's a bit contradictory. I don't know if this is just my experience. I've worked in the government sector and there's just not a lot of encouragement to leave your desk to go and do healthy activities. So, I find it's a little bit conflicting trying to balance - it's all well and good to say you need to get out more and do active stuff, but then you also need to sit at your desk eight hours a day. That's the message as I read into it.”

“I think it has to come down from the top. They have to say it's not just about encouraging people to spend 10 minutes a day doing active stuff. They have to allow their staff to say, "We're going to penalise you for not being at work or at your desk." It has to be part of the nine to five setup I guess.”

<u>Strategies</u>

While a few women reported that they wanted to know ‘what’ to do, fifteen wanted to know ‘how’ to integrate healthy behaviours into their lives.

“we all know we need to eat healthy and exercise. Okay. We’re not dumb. We know this”.

“the formula is simple, but the activation of it is hard”

“I’ve got the knowledge of it, so I know the importance of things”

"I would make more practical resources available. I think the messaging is good but it doesn't then lead to practical to practical support. There's a lot of you could eat healthier, you could swap X for Y, yay. And it's like okay, great that's a really excellent message for me about reminding me and there's a good reason to stay fit and a good reason to eat well and that this is something I should be doing more of. I'm motivated to do that but now how do I go about it? And often that's where the high bar is. So, in terms of government messaging, having resources available to then help plan for that and have healthy possibilities for cooking and that sort of thing at your fingertips would be great."

"…getting like a message on a Friday night or a Saturday morning that said, "Plan ahead for a healthy week." Like it just like gave you a little nudge to actually go and do some groceries that weekend and plan some meals, because you sort of finish work, and then you're just like, oh you're just in a coma, and then you just, I don't know, you just try and be just more relaxed or something, yeah. Those, sort of positive things would be helpful for me…."

Women mentioned that they valued inventive and different ways to eat healthy and do physical activity in government campaigns.

"Yeah, yeah, like move. Do you want to go skateboard? What's your thing? Find what brings you joy and tap into it."

"…recently there's been this ad to target sort of teenage girls I think and it's trying to encourage girls in sport or something, but they had a whole variety of things. It wasn't just like netball and athletics. They had I think ice skating and frisbee and all these different games that I'm sure lots of people would actually enjoy doing but might not have thought that is something that would help me get healthy."

"I think a lot of kids who have education behind them are a lot better off. I mean, people will look at an ad for like five seconds. But those kinds of ads that deal with the social side."

Campaigns like "*Swap it don't stop It*" and the *"Girls make your move*" give strategies or ideas about 'how' to do the health behaviours, which were commended by participants.

"It is important to get those sorts of messages that are presumably backed by science and supported by programs."

Addressing social barriers

When asked about government and health messaging twelve women talked about social barriers should be highlighted. Social barriers such as cost, transport, food choice, food insecurity, and infrastructure and safety affect a women's choice.

"Health messaging that truly understands the structural constraints of healthy eating. There's no point in pointing the finger or using guilt. I think most people understand

what they should or shouldn't do. Its patronising to see health messages that make you feel guilty when you are trying your best or you haven't got the money. Or you haven't got the community resources around for what you need. So, health messages that don't focus on the individual but focus on the government and policy, society, community, culture, infrastructures, initiatives that support women and families to have more time so they can cook. Look at the density of stores and fast food stores, alcohol stores. Those that are looking at local fresh foods. Childcare centres that are flexible and accessible, so people aren't having to drive so far. All of these things impact our health, just focusing on the individual saying you need to eat 2&5 is a bit old and not looking at the complexity of how things connect. So transport, education, sports facilities."

"If you are going to have campaigns around obesity and healthy eating you have to look at the bigger picture so you can't just look at people as a blob of fat because you can have all the adverts in the world and they can't afford to eat healthy or if they don't have cooking facilities or if they are homeless or couch surfing. If they haven't got the skills to cook."

"I think, probably a lot of social change has to happen to allow - if you're just speaking more from a women's perspective in participating, the workplace is set up to serve … society where women are not at work … - men aren't having to pick the kids up … school hours don't fit with work hours and it's not complementing each other yet, so I think there has to be a lot of changes to make it easier for more people to have a work, life balance."

"I was going easy on myself, working and having a child, if I want to slip for a while and eat a doughnut- do it. Stress is really hard, everyone is time poor. One way of temporarily easing that stress is to reach for the junk food. Messaging saying "don't eat that" doesn't work if you are stressed or time poor."

"There's always great advertisement from the government. But that's all countered by KFC, McDonalds. We have ads bombarding us with eat this unhealthy stuff. Pizza is only the cheapest just down the road, you can ring it up. It's like you can't ring up a fruit shop and say, can you deliver bananas... A drive through fruit shop! So, it's easy to get the junkfood, and not as inconvenient as eating healthy food. You've got to make a real effort. The conscious effort."

Ideals of perfection

Societal norms of what a woman's body looks like and what they should be doing with it was a topic discussed by women. Often, they feel shame that they couldn't live up to unachievable ideals. Eighteen women talked about these issues.

Some women talked about the guilt they feel when not doing the things they think they ought to.

"I have a lot of guilt attached to physical activity. I know what I should do, and I know what is good for me but knowing it and doing it, for me, that's difficult."

"it's something that creates a little guilt for me… I really struggle to find time to fit physical activity into my life. That really frustrates me. Because I would like to do more and I really struggle to find the time to do that."

"I think it's my age and my guilt, it's just a guilt thing. And I still had to force myself to go to the gym, I didn't like it….I just, must be weak willed."

"…I walk in and I'm like, everyone's looking at the fat lady who's going to get more KFC or whatever."

A few women who were doing more than the recommended amount of physical activity reported that they still thought they should do more. They felt that it was never enough.

<u>Acknowledging societal pressures</u>

Women reported having an introspective understanding of societal norms of women's bodies.

"I think there's a lot of shame associated with food and maybe that's going back to the media and social expectations around what you should look like and the stigma that comes with being overweight."

[Health behaviours are] "More important than whether you have a flat stomach"

"My daughter, she's – I wouldn't say she's overweight but she's a big girl. Not greatly big, but she's healthy. She exercises. She works well, and very active. But my granddaughter has this thing about body image and that's a lot to do with what's advertised on television. And when her mummy is undressing, or you know, she says, oh you know you're fat, mummy. Or you need to lose weight mummy. And to the point where she doesn't undress in front of her anymore because it obviously makes her uncomfortable and a bit sad. But then there are kids at school that say something to her about it, because she looked at a photo of her when she was only a baby. And she said oh, I've lost some weight now, grandma. And I said, but sweetheart, you've grown up. You haven't lost weight. You were a beautiful, healthy chubby baby. So that body image has a lot to answer for. So yeah."

"They put us in a pigeonhole. And we've all got to be this way. And with the magazines, they're airbrushing their hips away."

"I have to remind myself that they get paid to look like that. Whereas I couldn't do other things with my life."

"there's a mentality that you have to be perfect. And maybe not for men, but just it's like an underlying mentality."

"But if you are talking about health, bringing weight into it might actually be counter intuitive, especially because we have tried so hard to change the messages.

Especially for young women. I suppose older women as well it’s been going on so long.”

Acknowledging that weight doesn’t indicate health

Women talked about how they knew weight was not an indicator of overall health.

“they are big people, but they are still healthy”

“I don’t think as a society we can say that because someone is larger they are not healthy. You can have all the testing done, you are fit and energetic, but you have just got a bigger frame. Everyone has different body types and that is a separate issue. They need to find a happy medium, if you have that one size fits all, that can result in poor body image. Not just in vogue but also government message you see. It’s not just in the glossy magazine.”

“…you don’t have to be part of the Lorna Jane brigade at the gym, size 6 to 8, to actually be healthy because we all know everyone’s built differently and depending on your age and all the things that are going on, you’re not always going to achieve that. So, it’s good to sort of have divisions of people who are just sort of normal and therefore not necessarily scrawny to actually achieve some kind of health.”

“Everyone’s body is different, and metabolism is different, their health issues a different. I think that’s the point there isn’t a perfect way.”

“There isn’t a one size fits all.”

“Yeah redefine it, because it isn’t just that size ten glowing skinned.”

“Because it puts a lot of people off as well. Because they’re like well I can’t look like that so therefore it’s not worth trying.”

What we learned

We found that women value physical activity and eating well in different ways, although most women value the mental and physical health benefits. Time, affordability, safety and infrastructure, chronic disease, and fear of judgment impacts how women participate in health behaviours. How they overcome these barriers is important, because it can help to shape health promotion that enables women to continue healthy behaviours through the various stages of their lives.

Values and motivation

Women in the study valued healthy behaviours, however these were different to what motivated them to participate in physical activity or eat healthy. Values in this study are considered principles that drive behaviour. Values are evaluative and hierarchical, meaning that people will choose some values over others because when faced with two different circumstances.[204] For example, a woman might value being physically healthy and value getting to work on time, so that on a day when she is running late she might choose a quicker but less healthy breakfast. It is necessary to acknowledge that many of the women said they valued health behaviours, but may not be carrying out their values all the time.

Women discussed their values regarding health behaviours in three different ways: to maintain overall health, to live a long life, and for weight maintenance.

Forty one women in the study talked about how health behaviours were important to them because it was mentally and physically beneficial, and that they valued living in good health, free from illness. They talked about how it helped them do their daily activities while maintaining energy levels.

> *"…I just want to stay healthy actually, that's the main thing yeah, and be able to do the things that I want to do without being restricted by my abilities due to poor health."*

Sixteen women said that they want to live a long and healthy life. They reported they found health behaviours important because they wanted to live disease free as long as possible. The health benefits of physical activity and healthy eating were mentioned more often by women in our study that had a chronic disease, where they specifically talked about reducing their risk of further illness.

> *"For those of us who have chronic health conditions, if we can keep on top of diet and exercise, it can actually hold those at bay with the right levels."*

Seven women also mentioned that keeping their weight down was important to them and that was why they valued healthy behaviours.

[204] L Parks & R P Guay, 'Personality, values and motivation', Personality and individual differences, vol. 47, 2009, pp. 675-684.

Motivation is different to values.

> *"Motivation is an energizing force that induces action."*[205]

> *"It relates to decisions (conscious or unconscious) that involve how, when, and why we allocate effort to a task or activity."*[206]

Women were motivated to participate in physical activity and eat healthy in different ways. As women are diverse, motivators to do physical activity are also diverse. A few women said that they relied on their competitive nature for motivation, whereas others said they were most likely to be motivated by the activity being social (n=15) and enjoyable (n=18).

> *"…that's kind of the social bit for me, it's someone to have a chat with and I think people are supportive if you are seeing the same people each time they are really encouraging."*

LeCaille et al found that in a group of university students, participation in physical activity was motivated by socialising. [207] Other studies have shown that women with autonomy when exercising felt more positively about exercising.[208] Research by Segar et al found that women are more likely to continue doing physical activity if they are motivated by enjoyment or feeling good, or being social, rather than relying on health and weight reduction.[209] A number of Australian papers found that a focus on a sense of wellbeing or stress reduction was a key motivator for mid-age women to do physical activity, rather than doing it for weight loss or health benefits.[210] [211] Fun, enjoyment, and social reasons, are key motivators for women to do physical activity.[212]

Women discussed their motivation to eat healthy in a different way to their motivation to participate in physical activity. The women said that they were motivated to eat healthy if they could maintain balance and flexibility in their diet (n=22), and if they had enough time and organisation to prepare and cook a wholesome meal (n=8).

> *"I mean I love healthy food but I also love having a pizza or a burger. But I don't deny myself that, so I think it's having that balance but just realising that you can't have that every day, putting everything in the right balance."*

It appears that the motivation to eat well can be contingent on other things that are going on in their lives. Women have the motivation to eat healthy if they feel they have flexibility and time.

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[205] C C Pinder, Work motivation in organizational behavior. 1998, Upper Saddle River,NJ: Prentice Hall. In L Parks & R P Guay, 'Personality, values and motivation', Personality and individual differences, vol. 47, 2009, pp. 675-684

[206] L Parks & R P Guay, 'Personality, values and motivation', Personality and individual differences, vol. 47, 2009, pp. 675-684.

[207] L J LaCaille et al., 'Psychosocial and environmental determinants of eating behaviors, physical activity and weight change among college students: a qualitative analysis', Journal of American College Health, vol. 59, no. 6, pp. 531-538.

[208] E A Rose & G Parfitt, 'Exercise experience influences affective and motivational outcomes of prescribed and self-selected intensity exercise', Scandinavian Journal of Medicine and Science in Sports, vol. 22, 2012, pp. 265-277.

[209] M L Segar et al. 'Rethinking physical activity communication: using focus groups to understand women's goals, values, and beliefs to improve public health', BMC Public Health, no. 17, vol. 462, pp. 1-13.

[210] M L Segar, J S Eccles & C R Richardson, 'Type of physical activity goal influences participation in healthy midlife women', Women's Health Issues, vol. 18, 2008, pp. 281-291.

[211] M L Segar et al., 'Midlife women's physical activity goals: sociocultural influences and effects on behavioural regulation', Sex Roles, vol. 57, 2007, pp. 837-849.

[212] Ausport.gov.au, Ausplay focus Women and girls participation, Australian Government Australian Sports Commission, Canberra, 2017, retrieved on the 1st of August 2018: https://www.ausport.gov.au/__data/assets/pdf_file/0011/665921/34953_Ausplay_factsheet_SODA_access2.pdf

Eating plans, diets, and professional advice often have inflexible and restrictive components.[213] Research indicates that embarking on diets that were considered inflexible and restrictive had poor retention rates and limited improvement of health risk factors after two years. But participants who learnt the “health at every size” approach to eating were more successful at improving health risk factors, and had a higher retention rate in healthy eating behaviour.[214]

Age can be a factor when considering what motivates women. Young people tend to be motivated by what their friendship group is doing. Eating healthy can be a social activity for this age group.[215]

Having the time to organise and prepare healthy food is more than just the absence of the barrier of lack of time. For women who enjoy the creativity of preparing and cooking healthy food, for family and friends as well as for themselves, having time is a motivator to acting on their values of taking care of their health.

Time

Women reported time was the largest barrier for participating in physical activity and eating well. Thirty eight percent of women in our study reported that it was difficult to participate in physical activity due to the constant juggling of family and work. Some women found that additional time was needed to factor in physical activity such as travel and organisation. Welch et al emphasises ‘time pressure’ as something that is likely to be more complex than balancing multiple roles.[216] Women mentioned that they prioritised their role and responsibilities as a mother above doing physical activity.

> *“[physical activity] unfortunately it is the thing that is dropped a lot of the time, because other things take precedent.”*

Child caring responsibilities limit a woman’s ability to do physical activity.[217] Having a supportive partner that takes on responsibility of child caring has a positive effect on participation in physical activity.[218] Mothers also often put the health of their children over their own health, which negatively impacts their participation in healthy behaviours.[219]

Nine women in our study talked about how work negatively impacted their capacity to fit physical activity into their schedules.

> *“Time, 100%. It’s the time. I don’t have a stressful job, but I have a job that takes a lot of commitment. I’m not a junior staff member, I’m sort of middle-ish, sort of senior-ish*

[213] J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2009.
[214] L Bacon et al., ‘Size acceptance and intuitive eating improve health for obese, female chronic dieters’, Journal American Dietetic Association, vol. 105, 2005, pp. 929-936.
[215] L J LaCaille et al., ‘Psychosocial and environmental determinants of eating behaviors, physical activity and weight change among college students: a qualitative analysis’, Journal of American College Health, vol. 59, no. 6, pp. 531-538.
[216] N Welch et al.,’ Is the perception of time pressure a barrier to healthy eating and physical activity among women?’ Public health nutrition, vol. 12, no. 7, 2009, pp. 888-895.
[217] Ibid
[218] N Welch et al., ‘Women’s work. Maintaining a healthy body weight’, Appetite, vol. 53, 2009, pp. 9-15.
[219] M W Chang et al., ‘Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers’, Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.

person, and I go to work, I leave the house at 5 to 7, I don't come home till 5.30 or quarter-past 6 or sometimes later."

Research shows that women who work longer hours have less time in the day to participate in physical activity.[220] [221] One study found that women who mentioned time pressures as a barrier to physical activity participated in physical activity far less than women that didn't mention time pressures as a barrier.[222]

Fifty eight percent of women in our study reported time, preparation, and organisation as a barrier to healthy eating. In comparison, forty percent of women in a study by Welch et al also listed time as a reason for not eating well, which was evaluated by a negative association with vegetable and fruit intake.[223] Time as a barrier for healthy eating was talked about in a different way to physical activity. This is because it can be divided into four parts: shopping for food, preparing food, cooking food, and cleaning up. Each part takes time but is necessary for healthy meals.[224]

"…if you don't plan your meals, go to the shop, buy all the ingredients for the meals - if I come home and there is all the ingredients to a magic healthy meal in the fridge, I will happily prep and cook dinner and eat a good meal. But, if it's not there, I'm not going to the shops…"

Eight women out of the thirty that mentioned time talked about difficulty having healthy meals while maintaining work life. Twenty percent of women in Andajani-Sutjahjo's study revealed that the most important barrier to healthy eating was not enough time due to work hours.[225] Women in the current study described a phenomenon called work-family spillover when they said working long hours or being tired when coming home impacted their ability to prepare and cook healthy meals. Blake et al also found work-family spillover had negative impacts on healthy food, where women chose unhealthy meals if they were fatigued and stressed by work responsibilities and inflexibility.[226]

Women report that they have time constraints due to having many tasks to juggle and many limitations on their time. In our study, twelve women that had children under thirteen years old were in paid employment. Jabs et al found that mothers with paid employment experience time scarcity, but also manage time in varying ways to enable participation in food work.[227]

[220] N Au, K Hauck & B Hollingsworth, 'Employment, work hours and weight gain among middle-aged women', International Journal of Obesity, vol. 37, 2013, pp. 718-724.
[221] N Welch et al.,' Is the perception of time pressure a barrier to healthy eating and physical activity among women?' Public health nutrition, vol. 12, no. 7, 2009, pp. 888-895.
[222] Ibid
[223] Ibid
[224] C A Bisogni, M Connors, C M Devine, J Sobal, 'Who we are and how we eat: A qualitative study of identities in food choice', Journal Nutrition Education Behaviour, vol. 34, 2002, pp. 128-139.
[225] S Andajani-Sutjahjo et al., 'Perceived personal, social and environmental barriers to weight maintenance among young women: a community survey', International Journal of Behavioural Nutrition and Physical Activity, vol. 1, no. 15, 2004, pp. 1-7.
[226] C E Blake et al., 'Employed parents' satisfaction with food-choice coping strategies. Influence of gender structure', Appetite, vol. 52, 2009, pp. 711-719.
[227] J Jabs et al. 'Trying to find the quickest way: Employed mothers' constructions of time for food', Journal of Nutrition Education and Behaviour, no. 39, 2007, pp. 18-25.

Both Blake et al and Women's Health Victoria report that women take on most of the food work even if they were working equal hours as their partners.[228] [229] Even though it wasn't clear that women in our study took on most of the food work it could be a very likely scenario. What five women did say, was that they lacked partner support with eating well.

> *"My husband doesn't like Aussie food, so we tend to cook Indonesian food."*
>
> *"If I'm going to have a salad for dinner and he says well I'm getting pizza so I say well if you are getting pizza I'm getting pizza. That's a big effect."*

Overcoming time as a barrier

Women discussed the ways they have worked hard to figure out how to manage their time well. Fitting in physical activity where they are able has worked for women and some talked about being able to rely on their husbands. Whereas with eating well, women make use of recipes that are quick and easy, even if some components of the meal aren't as healthy as they would like. Time-deepening was a strategy used for both physical activity and eating well.

Ten women talked about how they work physical activity into their lives. Some women fit it in when they could, on their lunch breaks, on their way home from work and at home in the morning.

> *"The thing that appeals to me the most with running is that I can go whenever I want. I don't think I'm that organised, or structured a person. So, depending on what time I knock off work, or when I take my lunch break. I can just run whenever and all I need is my runners and I'm good to go."*

Six women with children under thirteen years had success with prioritising their physical activity as they were able to rely on their partner and therefore reduced the time they spent on caring responsibilities. They reported having a 50/50 split of responsibilities. Likewise, some but not many, women in other studies were able to concede responsibility of child minding to their partner to aid participation in health behaviours.[230]

> *"… the fact that I'm female, even though we live in a fairly progressive. And my husband's pretty good, I still have to say well I go out* [cycling] *three mornings a week and that leaves you four that's kind of fair. And initially setting that up especially when our kids were younger was still a bit of a shock to him, "but you're not here", "well your half of the parenting unit". So that's a massive thing."*

Twenty women discussed quick and easy ways of eating well, eight were women with children under thirteen years old. This time saving mechanism appears to be something that women relied

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[228] C E Blake et al., 'Employed parents' satisfaction with food-choice coping strategies. Influence of gender structure', Appetite, vol. 52, 2009, pp. 711-719.
[229] Women's Health Victoria, Serving up inequality: How sex and gender impact women's relationship with food, Melbourne, 2017, retrieved on the 13th of April 2018: http://whv.org.au/static/files/assets/39b9c85a/Serving_up_inequality_Women-and-food-Issues-Paper-11-Version-2.pdf
[230] N Welch et al., 'Women's work. Maintaining a healthy body weight', Appetite, vol. 53, 2009, pp. 9-15.

on to cook both meals for themselves and others. They have found ways to make things work for them, such as cooking meals ahead or using part prepared foods.

> *"I definitely think that time is a big factor to cook a family meal, you have got to kind of have the time to do it. And I'm on maternity leave at the moment, and even on maternity leave I struggle some days to get food on the table. But I think it's having some simple ideas makes it easier, having a set of recipes."*

To be able to cook quick and easy meals for the family, employed mothers plan, coordinate and prioritize food work.[231] [232] Women used time organisation mechanisms such as planning how they were going to use their time to shop and cook, coordinating their time so that there were multiple things happening at once, and prioritisation of time. Prioritisation meant knowing that they weren't going to fit everything in, but feeding their children was their main priority.[233]

Many participants explained that the time that they use for healthy behaviours is the same time that they use for other necessary activities. Namogochi et al writes about the phenomenon, 'time deepening', in a positive way which relates to multitasking activities as a way of increasing the benefit of the activity.[234] In this study, we noticed that women often used 'time deepening'. For example, many of the women combined a health behaviour and a social event. Twenty one women talked about using physical activity as a way of socialising, making and maintaining connections with people. They also made note of the way it supported continuing the activity by helping to be accountable for turning up.

> *"…When you do a team sport you create networks so it's that psychological thing as well."*

> *"I actually run a walk today which is where I have come from and that's kind of the social bit for me, it's someone to have a chat with and I think people are supportive if you are seeing the same people each time they are really encouraging."*

Sixteen women talked about making at least one of the time-consuming parts of eating well into a social event. They told us that they go shopping or cook with others to make the activity more enjoyable.

> *"…my partner and I enjoy eating healthy. We have set cooking nights and we plan and go to the markets, its social as well, we get coffee and walk around. It's nice, its cold at the moment but it's nice."*

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[231] J Jabs et al. 'Trying to find the quickest way: Employed mothers' constructions of time for food', Journal of Nutrition Education and Behaviour, no. 39, 2007, pp. 18-25.
[232] C M Devine et al, 'Work conditions and the food choice coping strategies of employed parents', Journal of Nutrition Education and Behaviour, vol 41, no 5, 2009, pp. 365-370.
[233] J Jabs et al. 'Trying to find the quickest way: Employed mothers' constructions of time for food', Journal of Nutrition Education and Behaviour, no. 39, 2007, pp. 18-25.
[234] K M Nomaguchi and S M Bianchi, 'Exercise time: gender differences in the effects of marriage, parenthood and employment', Journal of Marriage and Family, vol. 66, no. 2, 2004, pp. 413-430.

Commensality, the act of eating together, has long been studied as a necessary part of family life and social connection.[235] Sharing other aspects of food work is not as well researched, although it appears that it has benefits for the women in our study.

Affordability and income

Women in the study discussed affordability as one of the biggest barriers to healthy behaviours. Twenty women talked about how affordability of a gym or sport made it hard to do physical activity. This limited their choices to the type of activity they could afford.

> *"going to a gym is an option there but it's … expensive."*

Some women also talked about the extra costs of physical activity such as childcare, running shoes, or transport.

> *"If there was a pensioner's discount, or for people on low income if there were discounts that would make it more affordable. If there was childcare available, for people who have young children, to be able to go."*

Fatigue has been listed as one of the main barriers for not doing enough physical activity by lower income women in other studies,[236] [237] perhaps because they are working longer hours, doing shift work, or spending long hours on their feet.[238] [239] However, fatigue did not appear to be a significant barrier for the lower income women compared to women in higher income groups in our study.

Twenty eight women talked about affordability of healthy food. Those on lower incomes are spending a higher percentage of their income on food than women on higher incomes.[240] ACTCOSS report that *"many Canberra families are in a position of having to forego not only the occasional luxury, but to decide between eating or turning on the heating."*[241]

> *"Obviously, I need heating for the winter and that has to come as a precedent to eating 10 serves of vegetables. I can see that's a barrier."*

Research comparing 'food baskets' shows that it is cheaper to buy healthy food than it is to buy unhealthy food, however both are far more expensive than a lower household income can afford. And in fact, to buy healthy food lower income households would be spending up to 40% of their weekly income on groceries.[242] [243] Some women in our study acknowledged that it was cheaper to buy in bulk and cook fresh meals then it was to eat out. Other participants, who were mostly

[235] C Fishler, 'Commensality, society and culture', Social Science Information, vol. 50, no. 3-4, 2011, pp. 528-548.
[236] R Hoebeke, 'Low-income women's perceived barriers to physical activity: focus group results', Applied Nursing Research, vol. 21, 2008, pp. 60-65.
[237] Cheng et al., 'Motivators and barriers to healthful eating and physical activity among low-income overweight and obese mothers', Journal of the American Dietetic Association, vol. 108, 2008, pp. 1023-1028.
[238] L Williams, J Germov & A Young, 'The effect of social class on mid-age women's weight control practices and weight gain', Appetite, vol. 56, 2011, pp. 719-725.
[239] R Hoebeke, 'Low-income women's perceived barriers to physical activity: focus group results', Applied Nursing Research, vol. 21, 2008, pp. 60-65.
[240] C Innes-Hughes et al. Food security: The what, how, why and where to of food security in NSW. Discussion Paper. PANORG, Heart Foundation NSW and Cancer Council NSW, 2010, Sydney.
[241] ACTCOSS, Factsheet May 2018: Poverty and inequality in the ACT, retrieved on the 13 of August 2018: https://www.actcoss.org.au/sites/default/files/public/publications/2018-factsheet-poverty-and-inequality-in-the-act.pdf
[242] C Kettings, A J Sinclair & M Voevodin, 'A healthy diet consistent with Australian health recommendations is too expensive for welfare-dependent families', Australian and New Zealand Journal of Public Health, vol. 33, no. 6, 2009, pp. 566-572.
[243] L Barosh et al., 'The cost of a healthy and sustainable diet – who can afford it?', Australian and New Zealand Journal of Public Health, vol. 38, no. 1, 2014, pp. 7-12.

mothers with lower household income, talked about the immediacy of food. For those low income families, having enough money to feed a large family is difficult, so a cheaper unhealthy meal might be the choice to meet immediate needs.

> *“That’s the biggest issue that I find, is just the cost of the food, meat particularly, and being able to get that into your child, as opposed to thinking, “Okay, well, I can get three pizzas a week for $5 instead of one good meal.”*

Women from CALD backgrounds represented 31% in our study (n=16) and nine of those women reported that they were in the lowest household income bracket. Women from CALD backgrounds in our study reported that the cost of food made it difficult to eat healthily. Women from CALD backgrounds may experience the “double jeopardy” of cultural diversity and gender which can lead to lower income levels.[244]

Overcoming affordability barriers

Lowering the cost of physical activity and healthy food was suggested by some of the women in this study. Affordability of gyms and sport has been negatively discussed and nine women specifically reported that lowering the cost would make it easier to do physical activity. Women talked about using lower cost options such as walking, bike riding, and pension discounts for the pool and gym, but reported that there were limitations to these options also.

> *“On a disability, that's one thing in summer that's really good on a disability pension, the pool is free, so you can go to the pool and so there are some things that are quite affordable with the disability pension that made a difference. I went to a pool three times a week all through summer because it was free, so things like that.”*

Free options are accessible and valued. Furber et al found that women (and men) use outdoor gym equipment and report the added benefit of socialising with others using the facilities.[245] Volunteer run organisations, like *MEGA Mums* and *parkrun*, were mentioned by women in our study as a great way to participate in physical activity. Both organisations have free and low cost options such as walking and running in a very social atmosphere.[246] [247]

Seven of the women reported that lower cost food options would make it easier to eat well. Food outlets that cater to people who have difficulty affording food are discussed by women accessing them in our study. They report how it has changed how they eat, giving them access to fruit and vegetables which they otherwise wouldn’t have access to.

> *“I think if there could be more support for the food banks and for making the services accessible to other people in the community, because it's changed the way we eat at home. With the help of going to the food banks, particularly this one - and there's one*

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[244] E Greenman and Y Xie, ‘Double Jeopardy? The interaction of gender and race on earnings in the U.S’, Social Forces, vol. 86, no. 3, 2008, pp. 1217-1244.
[245] S Furber et al., ‘People’s experiences of using outdoor gym equipment in parks’, Health Promotion Journal of Australia, no. 25, vol. 211, 2014, pp. 1.
[246] parkrun Australia, Parkrun.com.au, retrieved on the 14th of August 2018: http://www.parkrun.com.au/
[247] MEGA Mums, Megamums.com.au, retrieved on the 14th of August 2018: https://www.megamums.com.au/

other one that's quite good - the fruit, vegetables and meat we now have every meal, or we'll have meat four times a week now. We have vegetables at every meal, they have vegetables in their lunchboxes, and fruit, and that was something we didn't have before we found this food bank."

A review of the literature by Bazerghi et al found that food outlets such as the one described above are being utilised more and more but the donations are not able to keep up with the demand.[248] Many people are missing out on food when trying to access food outlets.[249] Food security can be improved with the help of food banks if operational resources are improved and perishable food groups are more available when client needs are identified and addressed. [250]

Safety and infrastructure

Women in this study discussed safety and infrastructure when discussing barriers to participate in physical activity and healthy eating. Fifteen women reported they felt unsafe when exercising outside after dark. They felt that the area was unsafe if the lighting was poor and if there was no one around. Some also felt that poor lighting may reduce physical safety if they were on uneven and broken paths. This limited their activity choices. Women have been shown to have a fear of walking outside,[251] especially if the lighting is poor and there is a possibility of entrapment.[252] Worry about perceived crime and personal safety impacts on women's participation in physical activity[253] In Canberra, women feel unsafe due to perceived safety rather than actual crime rates.[254] Even so, having the ability to go to a gym or sports facility ensures a safe environment for physical activity that can be done at night and out of the weather, however as discussed previously affordability can be an issue.

"It's sooo dark. Canberra is so dark in the suburbs at night time, the lighting is almost non-existent. I live in a suburb in the north and I went for a walk the other night at like 6 o'clock and I was followed into my street. It's ridiculous, I'm just trying to go for walk."

Women in the Jean Hailes *Survey on Women's Health* reported that perceived safety in a woman's local neighbourhood was related to areas of socioeconomic disadvantage.[255] This is likely not the same for women in Canberra due to the 'salt and peppering' of socioeconomic areas, where socio-economic disadvantage is not concentrated into areas as large as whole suburbs.[256]

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[248] C Bazerghi,et al., 'The role of food banks in addressing food insecurity: a systematic review', Journal of community health, vol. 41, no. 4, 2016, pp. 732-740.
[249] McCrindle, Foodbank Hunger Report 2017, Foodbank, Sydney, 2017, https://www.foodbank.org.au/wp-content/uploads/2017/10/Foodbank-Hunger-Report-2017.pdf
[250] C Bazerghi, F McKay, Fiona H. and M Dunn, 'The role of food banks in addressing food insecurity: a systematic review', Journal of community health, vol. 41, no. 4, 2016, pp. 732-740.
[251] C G Roman & A Chalfin, 'Fear of walking outdoors: A multilevel ecologic analysis of crime and disorder', American Journal of preventative medicine, vol. 34, no. 4, 2008, pp. 306-312.
[252] C Boomsma & L Steg, 'Feeling safe in the dark: Examining the effect of entrapment, lighting levels, and gender on feelings of safety and lighting policy acceptability', Environment and behaviour, vol. 46, no. 2, 2012, pp. 193-212.
[253] VicHealth, Physical activity across the lifecycle, Victoria, 2017, retrieved on the 22nd of January 2018: https://www.vichealth.vic.gov.au/media-and-resources/publications/life-stages
[254] E Davidson, WCHM safety mapping data (unpublished), Women's Centre for Health Matters, Canberra, 2017.
[255] H Brown et al., Women's health survey 2017, Jean Hailes for women's health, Australia, 2017, retrieved on the 29th of November 2017: https://jeanhailes.org.au/survey2017/report_2017.pdf
[256] R Tanton, R Miranti & Y Vidyattama, Hidden disadvantage in the ACT: report for ACT anti-poverty week, ACTCOSS & NATSEM, Canberra, 2017.

Poor lighting in addition to potentially hazardous, broken paths impact on some women's ability to do physical activity in our study, this was also noted in research by the WCHM[257] and by VicHealth, particularly when women were using prams to exercise with infants.[258]

Some women in the lowest household income bracket talked specifically about limited transport options and poor storage facilities as a barrier to healthy eating. Limited food access through limitations of transport and storage, can lead to food insecurity.[259]

> *"Because when I was in mental health treatment, I didn't have my car, and I was supplying my own food at that place… I couldn't get to the food banks and I didn't have any money to go to the grocery store. And I was very hungry throughout my period of time … because my normal thing would have been to go to the food banks, but I couldn't get to them."*

People who are experiencing food insecurity are likely to have significant financial hardship, so any additional cost to accessing food is another burden. Travelling to pick up groceries is difficult and the ability to buy bulk food can be limited by transport or lack of storage options.[260] Coveney et al notes it wasn't the distance between women's home and food source, it was access to their own vehicle or easily accessible public transport that made it difficult to get food.[261]

Chronic disease

Women that have a chronic disease discussed difficulties in participating in both physical activity and eating well. Nine out of twenty women with chronic disease found physical activity difficult to do. Other research by WCHM found that many women with chronic diseases were met with pain and fatigue when participating in physical activity, and this was a barrier to participation.[262] This was also the case in research by Wilcox et al where participants that had arthritis knew that exercise would help mobility and reduce pain in the long term, but acute pain prevented them from participating.[263] In our study, some women expressed frustration with expectations and judgment that they needed to do a certain "amount" or "steps". They wanted to participate but knew that they couldn't achieve those expectations.

> *"You know the recommended daily is actually 10,000…I know I'll be wiped out if I do 10,000, so my target is down there and if I get that three times a week, I'd be thrilled."*

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[257] E Davidson, WCHM safety mapping data (unpublished), Women's Centre for Health Matters, Canberra, 2017.
[258] VicHealth, Physical activity across the lifecycle, Victoria 2017, retrieved on the 22nd of January 2018: https://www.vichealth.vic.gov.au/media-and-resources/publications/life-stages
[259] K Rosier, Food insecurity in Australia: What is it, who experiences it and how can child and family services support families experiencing it?, Australian Institute of Family Studies, Canberra, 2011, retrieved on the 14th of August 2018: https://aifs.gov.au/cfca/publications/food-insecurity-australia-what-it-who-experiences-it-and-how-can-child
[260] S King et al. Hard choices: going without in a time of plenty. A study of food insecurity in NSW & the ACT, NSW West & ACT, 2013, retrieved on the 4th May 2018: https://www.anglicare.org.au/media/2850/anglicaresydney_hardchoicesfoodinsecurity_2013.pdf.
[261] J Coveney & L A O'Dwyer LA, 'Effects of mobility and location on food access', Health and Place, vol. 15, no. 1, 2009 pp. 45-55.
[262] A Hutchison, "I don't have the spoons for that…" The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[263] S Wilcox et al., 'Perceived exercise barriers, enablers, and benefits among exercising and non-exercising adults with arthritis: results from a qualitative study', Arthritis & Rheumatism (Arthritis Care & Research), vol. 55, no. 4, 2006, pp. 616–627.

“I got very quick at shutting people down. I say well, you know, I’ve lived in this body for 40 years and I know it and I know what my limitations are, so I’ll keep doing it my way, thankyou.”

In our study, ten women mentioned that their chronic disease made it challenging for them to eat well. Some women were restricted in the foods that they could eat because of their chronic disease. Others said it was the side effects of their chronic disease, such as fatigue, pain, and immobility that made it difficult to choose, prepare and cook healthy foods. In a recent report by the WCHM it was found that 27% of women with chronic disease reported challenges when trying to eat well. Fatigue and pain were cited as major barriers as it inhibited their ability to shop, prepare and cook food. [264]

“When I’m badly depressed, food is just there to keep you alive. It’s not going to bring you pleasure. It’s not going to keep you healthy. You eat food because your hunger gets to the point where it says, you’ve got to eat something.”

Fourteen women out of the twenty who have chronic disease in our study mentioned affordability of healthy options impacted their food choices. Other studies reported on the difficulties managing competing expenses, where participants have had to choose between food and medical costs.[265] Seventy five percent of women who have chronic disease in our study are in the lower two household income brackets, which would reduce their available income to pay for both food and medical costs.

Overcoming chronic disease limitations

Women with chronic disease have significant barriers to maintaining health behaviours, but they have gone to lengths to overcome their barriers.

Ten women with chronic disease talked about how they found what works for them regarding eating well. They had ways to work around their chronic disease by buying food that is easy to make and cook. Others reported that they shop online to reduce the burden of walking and carrying shopping.

“…this is something that I do if I’m a little bit exhausted, but have the energy to make something, is I make more than I expect we will eat so that ‘hey the leftovers’ thing…”

Fourteen women have managed to find what works for them regarding physical activity. They choose activity that feels good to them without causing detriment or deterioration.

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[264] A Hutchison, “I don’t have the spoons for that…” The views and experiences of younger ACT women (aged 18 to 50 years) about accessing supports and services for chronic disease, WCHM, Canberra, 2018.
[265] E J Walkom, D Loxton & J Robertson, ‘Cost of medicines and health care: A concern for Australian women across the ages’, BMC Health Services Research, vol. 13, no. 484, 2013, pp. 300-307.

Fear of being judged and ideals of perfection

Physical activity and healthy eating are components in a woman's life that can be manipulated to achieve "the thin ideal" body type.[266] Twelve women in our study talked about how fear of being judged limited their ability to participate in physical activity. They felt judged for taking time out of work, and for their appearance.

> *"females are in the gym, they look so healthy and I just feel like so bad looking at that…it's just by seeing people who are really fit, it's just discouraging me."*

The *This Girl Can* campaign talked to women who also reported feeling judged for spending time away from their family, friends, study, or work and for how they look.[267] Going to places where thin people exercise has been shown to lead to guilt and shame.[268] Some women in our study also felt guilty when they didn't exercise.

> *"I think it's my age and my guilt, it's just a guilt thing. And I still had to force myself to go to the gym, I didn't like it….I just, must be weak willed."*

Feelings of guilt and shame due to not carrying out healthy behaviours may be from the negative impacts of the societal expectation to reduce risk.[269] The social expectation to ensure you reduce your risk or deal with the consequences of social disapproval. [270] Additionally, bigger people are faced with weight stigma. Though, weight stigma and discrimination only discourage those who are bigger from participating in healthy behaviours.[271]

Some women in our study discussed pragmatic views on "the thin ideal".

> *"…you don't have to be part of the [fitness fashion] brigade at the gym, size 6 to 8, to actually be healthy because we all know everyone's built differently and depending on your age and all the things that are going on..."*

For women, measuring appearance against the 'thin ideal' has been shown to increase negative self-appraisals.[272] Some of the women in our study acknowledged that expectations of how a woman should look, "the thin ideal", is a social construct originating from patriarchal social institutions and material interests.[273]

> *"I think there's a lot of shame associated with food and maybe that's going back to the media and social expectations around what you should look like and the stigma that comes with being overweight."*

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[266] J Germov & L Williams, A sociology of food & nutrition: The social appetite- third addition, Oxford University Press, Melbourne, 2008, pp. 348.
[267] Sports England and FCB Inferno. *This girl can*; inspiring millions to exercise. Marketing Society Awards 2016, England, 2016.
[268] K K Danielsen, J Sundgot-Borgen & G Rugseth, 'Severe obesity and the ambivalence of attending physical activity: exploring lived experiences', Qualitative Health Research, vol. 26, no. 5, 2016, pp. 685-696.
[269] K Smith-DiJulio, C Windsor & D Anderson, 'The shaping of midlife women's view of health and health behaviors', Qualitative Health Research, vol. 20, no. 7, 2010, pp. 966-976.
[270] Ibid
[271] J L Mensinger & A Meadows, 'Internalised weight stigma mediates and moderates physical activity outcomes during a healthy living program for women with high body mass index', Psychology of Sport and Exercise, vol. 30, 2017, pp. 64-72.
[272] E J Strahan et al. 'Comparing to perfection: how cultural norms for appearance affect social comparisons and self-image,' Body Image, vol. 3, 2003, pp. 211-227.
[273] J Germov & L Williams, A sociology of food & nutrition; The social appetite-third edition, Oxford University Press, Melbourne, 2008, pp. 348.

One woman mentioned the media's construct of an ideal woman's body: not only do they need to look like models, but they need to look like models who have had their bodies altered.

> *"They put us in a pigeonhole. And we've all got to be this way. And with the magazines, they're airbrushing their hips away."*

Health promotion campaigns

Health promotion campaigns can be ineffective due to the type of message, how they target their message, and if they don't take into consideration social determinants of health. Nineteen women talked about how some health promotion campaigns can cause them to feel shame and guilt when they see messaging that is stigmatising or has unachievable expectations. This feeling of stigma has been shown to hinder adoption of health behaviours and alienate target audience especially to those who most need support.[274]

> *"So I think that when they do things like this (grabbable gut) it just perpetuates that shame. I think if anything it can, speaking to my friends, that's not the thing that's going to encourage them to eat healthy. It also assumes that it's an easy step."*

Health promotion campaigns like this draw attention to the issue but do not promote positive behaviour change and are likely to isolate the target audience.[275] [276] Rather than attempting to reduce social disadvantage, health promotion campaigns that promote "the pedagogy of disgust" tell the population that the target audience (those that have bigger bodies) are disgusting and inferior.[277]

Women from our study discussed how health promotion campaigns needed to depict women who looked like them and had similar circumstances, otherwise they felt that the messages weren't for them.

> *"But I suppose my biggest complaint is that they often don't reflect people who are not white or families who are not very nuclear, heterosexual, Australian families. That doesn't really speak to my experience or my social circle. So, I suppose imaging and representation is important…"*

Homogenous health promotion campaigns are likely not to be successful to a population that is diverse.[278] Montgomery and Schubart acknowledge cultural differences (such as individual vs collectivist cultures, or types of foods and physical activity they are interested in) are important to consider when promoting health behaviours, and suggest specific targeting is necessary.[279] In addition, there is diversity in participants' proximity to achieving the health behaviour goal. Those

[274] R Puhl, J L Peterson & J Luedicke, 'Fighting obesity or obese persons? Public perception of obesity-related health messages', International Journal of Obesity, vol. 37, 2013, pp. 774 – 782.
[275] Ibid
[276] D Lupton, "The pedagogoy of disgust: the ethical, moral and political implications of using disgust in public health campaigns, Critical Public Health, vol. 25, no. 1, 2015, pp.4-14.
[277] Ibid
[278] M A Wakefield, B Loken & R C Hornik, 'Use of mass media campaigns to change health behaviour', Lancet, vol. 376, no. 9748, 2010, pp. 1261-1271.
[279] K S Montgomery & K J Schubart, 'Health promotion in culturally diverse and vulnerable populations', Home Health Care Management & Practice, vol. 22, no. 1, 2010, pp. 131-139.

that were furthest from achieving the health behaviour goal tended to be more encouraged and motivated by “gentle persuasion and helpful hints”.[280] Women in our study acknowledged how important it is to address social barriers and inequities in health (n=12). Health promotion campaigns are very unlikely to be effective if the population does not have the resources to make the necessary changes,[281] so it is particularly important for health promotion campaigns to take into consideration a woman’s social determinants of health.[282]

> *“If you are going to have campaigns around obesity and healthy eating you have to look at the bigger picture so you can’t just look at people as a blob of fat because you can have all the adverts in the world and they can’t afford to eat healthy or if they don’t have cooking facilities or if they are homeless or couch surfing. If they haven’t got the skills to cook.”*

Positive health promotion campaigns

Women in our study were motivated by health promotion campaigns that were positive and provided strategies to help them overcome barriers to healthy behaviours. Twenty three women reported that they liked positive, constructive and motivational health messaging. Women said they valued seeing people like themselves, family interaction and social aspects of health behaviours.

> *“That’s [‘Swap it don’t stop it’ campaign] probably the best one of the lot…because it was like a family and it was encouraging you to get out of the house as a family and do fun stuff together, which has two benefits, which is family bonding and all that, plus health. I thought that was a really good campaign.”*

> *“I like the girls make your move series because there’s such an array of women and they don’t look a certain way with the other kind of media propagates that. ‘be active to look this way.’ Which is quite harmful.”*

Health promotion campaigns that show physical activity and healthy eating in a positive way have been shown to be motivating.[283] The VicHealth *This Girl Can* campaign, which promoted physical activity as enjoyable and social, reported that it motivated 285,000 women to get active after seeing the advertisements.[284]

Women told us that they know “what” to do regarding healthy eating and participating in physical activity but found it difficult to implement healthy behaviours. They found that health promotion campaigns were motivating if they had strategies to help overcome barriers (n=15).

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[280] H Dixon et al., ‘Identifying effective healthy weight and lifestyle advertisements: Focus groups with Australian adults’, Appetite, vol. 103, 2016, pp. 184-191.
[281] M A Wakefield, B Loken & R C Hornik, ‘use of mass media campaigns to change health behaviour’, Lancet, vol. 376, no. 9748, 2010, pp. 1261-1271.
[282] S Andajani-Sutjahjo et al. ‘Perceived personal, social and environmental barriers to weight maintenance among young women: A community survey’, International Journal of Behavioural Nutrition and Physical Activity, vol. 1, no. 15, 2004, pp. 1-7.
[283] H Dixon et al., ‘Identifying effective healthy weight and lifestyle advertisements: Focus groups with Australian adults’, Appetite, vol. 103, 2016, pp. 184-191.
[284] VicHealth, Media release: This girl can inspires VIC women to get moving, Victoria, 2018, retrieved on the 5th of September 2018: https://www.vichealth.vic.gov.au/media-and-resources/media-releases/this-girl-can-inspires-vic-women-to-get-moving

"… I'm motivated to do that but now how do I go about it? And often that's where the high bar is. So, in terms of government messaging, having resources available to then help plan for that and have healthy possibilities for cooking and that sort of thing at your fingertips would be great."

Dixon et al also found that those that were not meeting recommendations for healthy behaviours were motivated by "what" and "how" but not "why". Participants in Dixon et al study were put off by messaging that told them what they knew already.

"They were aware they were overweight and they did not need to be reminded about the health effects in order to know that they should better manage their weight."[285]

[285] H Dixon et al., 'Identifying effective healthy weight and lifestyle advertisements: Focus groups with Australian adults', Appetite, vol. 103, 2016, pp. 184-191.

Improving healthy eating and physical activity in ACT women

The objective for this research was to better understand what motivates ACT women to participate in healthy eating and physical activity, so that future health promotion campaigns have a greater chance at success.

We identified factors that contribute to making health promotion campaigns more appealing and motivating for ACT women. We also make recommendations that would reduce barriers to participation in healthy behaviours.

Factors for successful health promotion

A focus on motivators for physical activity and healthy eating is likely to lead to a more appealing campaign for ACT women. For physical activity, this means the enjoyment of the activity, its role in social connection, or because it is part of their sense of self. For healthy eating, campaigns that focus on the social aspects of the work required to find and prepare healthy food will be appealing.

Health promotion campaigns that include strategies for how to participate in the behaviours, not just why the behaviour should be valued, are likely to be more successful. This means campaigns that promote ways to provide healthy food that is quick and easy to prepare, and is affordable for families on low incomes. When looking at affordability, women consider the total cost to provide the meal, not just the per unit cost. A woman who needs to feed her family that night may be looking for a lower cost alternative for one night's healthy family meal, rather than purchasing groceries that will provide enough food for multiple meals for her family.

For women from diverse cultural and linguistic backgrounds, with disabilities or chronic disease, older women, and women with diverse body shapes, seeing themselves reflected in campaign images and messaging is positive. Demonstrating the diversity of ACT women in campaigns helps women see themselves taking on the behaviours being promoted to them. Smaller, more targeted campaigns aimed at specific subsets of women might also be more effective than a campaign whose messaging is aimed at the broader 51 per cent of the ACT population who are women.

Barriers to participation in behaviours, such as time, cost, and perceptions of safety, must be addressed for a campaign to be successful. Highly motivated women must still overcome these barriers in order to implement changes in healthy eating and physical activity.

It is important that health promotion campaigns avoid stigmatising unhealthy behaviour or body shapes that do not meet unrealistic body expectations. Such stigmatising campaigns are unlikely to motivate women, and may in fact have a negative impact on healthy behaviours.

Overcoming barriers to healthy eating and physical activity

There are a number of recommendations to reduce barriers for women in participating in healthy eating and physical activity in the ACT:

1. WCHM to work with ACT Government on ways to increase availability of free outdoor fitness options, with measures to address safety concerns such as lighting, visibility, and a mixed demographic of active users in the area.
2. WCHM to work with community organisations and ACT Government on ways to improve support for services that assist low income households to access healthy food, including transport to get to/from services, or ways for services to be delivered closer to communities that need them.
3. WCHM to promote programs run by community organisations that provide fitness activities for women from low income households.
4. WCHM to work with ACT Government to progress the development of two multi-purpose indoor sports centres in Woden and Gungahlin, in line with the *Parliamentary Agreement for the 9th Legislative Assembly for the Australian Capital Territory*, ensuring that facilities are affordable for community sports groups accessed by low income households.
5. WCHM to work with ACT Government and the community on ways to reduce or subsidise the costs of physical activity for women in low income households.

Conclusion

Women in the ACT already have a good understanding of why healthy eating and physical activity are important for long-term health and wellbeing, and want to participate in healthy behaviours.

Time and affordability are barriers to both physical activity and healthy eating. Perceptions of safety can also be a barrier to physical activity. Fear of judgement can be a barrier to both participation in physical activity and healthy eating.

Women with children under thirteen years old have exponential increases in costs for physical activity, as many of them have childcare costs in addition to the activity itself, or prioritise the cost of their children's activity over their own.

For women on low incomes, cost is not as simple as the unit cost of meals per person when buying groceries: they are balancing cultural and social values of eating with nutritional values. There are times when not all values can be accommodated within their available budget.

Many women with chronic disease find that their chronic condition makes it harder to achieve the physical activity and healthy eating guidelines, and need to focus on what is achievable within their limitations.

A significant number of the women from CALD backgrounds in our study were also from low income households, and some also had chronic disease. They experience the combined effect of time, affordability, and chronic disease limitations.

Health promotion messaging aimed at a broad population group, and focused on valuing healthy behaviours, does not help women find ways to overcome their barriers to participation, or to feel represented in the target audience. In fact, it can be stigmatising and discourage women from participating.

The enjoyment of physical activity, and combining social activity with physical activity or healthy eating, are key motivators for women in choosing healthy behaviours.

Health promotion campaigns that focus on how to overcome barriers, or incorporate motivations, are likely to be more successful in changing women's participation in healthy behaviours than campaigns that focus on valuing healthy behaviour.

Appendix

The following health campaigns were discussed in the focus groups and interviews:

- Live lighter, *Had a grabbable gutful?*, ACT Health and Heart Foundation, 2018, retrieved on the 11th of September 2018: https://livelighter.com.au/The-Facts/Am-I-At-Risk
- Girls make your move, *Football poster - Blood, sweat and hell yeahs*, Australian Government Department of Health, 2017, retrieved on the 11th of September 2018: https://campaigns.health.gov.au/girlsmove/posters/football-poster
- Nutrition Australia ACT, *Swap it don't stop it*, retrieved on the 11th of September 2018: http://www.nutritionaustralia.org/act/swap-it-dont-stop-it-workplace-services
- Healthy WA, *Go for 2 and 5*, Department of Health, retrieved on the 11th of September 2018: http://healthywa.wa.gov.au/Articles/F_I/Go-for-2-and-5
- Good habits for life, *The sugar swap challenge*, ACT Health, 2018, retrieved on the 11th of September 2018: https://goodhabitsforlife.act.gov.au/sites/default/files/Sugar_Swap_Challenge_DL_Brochure_final.pdf
- *This Girl Can*, VicHealth, 2018, retrieved on the 11th of September 2018: https://thisgirlcan.com.au/
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