

ALSWH Technical Report #45: Appendices

Table of Contents

1.	APPENDIX A: COLLABORATIVE RESEARCH PROJECTS.....	2
1.1	Current projects	2
1.2	Completed projects.....	91
2	APPENDIX B: STUDENT PROJECTS.....	107
2.1	Current student projects	107
2.2	Completed student projects	151
3	APPENDIX C: SUBSTUDIES	168
3.1	Current substudies	168
3.2	Completed sub-studies	176

1. APPENDIX A: COLLABORATIVE RESEARCH PROJECTS

1.1 Current projects

Project ID: A038D	Relationship between diet quality and health service utilisation: an updated analysis
Lead Investigator:	<ul style="list-style-type: none">• Prof Clare Collins - College of Health, Medicine and Wellbeing, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none">• Dr Amanda Patterson - College of Health, Medicine and Wellbeing, The University of Newcastle• A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle• Dr Tracy Burrows - College of Health, Medicine and Wellbeing, University of Newcastle• Peta Forder - Centre for Women's Health Research, The University of Newcastle• Dr Rebecca Haslam - College of Health, Medicine and Wellbeing, The University of Newcastle• Dr Jennifer Baldwin - College of Health, Medicine and Wellbeing, The University of Newcastle• Dr Lee Ashton - Priority Research Centre for Physical Activity and Nutrition, The University of Newcastle
Liaison person:	<ul style="list-style-type: none">• Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>This project is about evaluating whether healthy eating is associated with reduced health care costs and all-cause and cardiovascular mortality. So far, we have shown consuming a greater variety of vegetables to be associated with lower 10-year and 15-year cumulative Medicare Charges and Claims. We have also previously shown that women whose diet quality worsened over 12 years had higher healthcare costs (Medicare charges) compared with those whose diet quality improved or remained the same. We wish to investigate whether these relationships are strengthening over a greater time period, or not. We also wish to investigate whether healthy eating is associated with reduced all-cause and cardiovascular mortality. This research may help to identify appropriate dietary targets associated with reduced health care costs and mortality. Further evaluations in other studies are needed so that modelling of potential future cost</p>

savings can be conducted. The results will inform a policy brief related to diet quality and healthcare costs over time.

Project ID: A058A	Use of ALSWH data to develop and illustrate methodology for analyzing longitudinal data
Lead Investigator:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Louise Wilson - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Michael Waller - School of Public Health, The University of Queensland • Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland • Colleen Loos - Australian Women and Girls' Health Research Centre, The University of Queensland • David Fitzgerald - Australian Women and Girls' Health Research Centre, The University of Queensland • Paul McElwee - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	This project uses ALSWH data to develop and illustrate methodological issues. The data is used for methodology research, testing data access platforms and teaching.

Project ID: A237B	The long-term implications of intimate partner violence for health and social support among mid-older Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle

	<ul style="list-style-type: none"> • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	Experiences of intimate partner violence (IPV) have a significant impact on women's physical, mental and emotional health. These poorer health outcomes have been shown to continue long after the violence has ceased. Therefore, the cessation of violence alone may not rectify the health impact of experiences of violence. It is unknown whether time alone can heal the physical, psychological and emotional impact of IPV, or if increased social support or other demographic factors may assist in reducing poor health outcomes after IPV. This project will examine health outcomes of the 1946-51 and 1973-78 cohorts of women after the cessation of IPV, factors associated with these outcomes over time and whether social support plays a significant role in reducing the ongoing adverse health outcomes after the cessation of IPV.

Project ID: A299	Coping with motherhood and work: Predicting positive wellbeing among young Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Dr Melissa Johnstone - Institute for Social Science Research, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Christina Lee - School of Psychology, University of Queensland • A/Prof Belinda Hewitt - School of Social and Political Sciences, The University of Melbourne
Liaison person:	<ul style="list-style-type: none"> • Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Successfully managing work and family responsibilities is a major issue for most Australians (Human Rights and Equal Opportunities Commission, HREOC, 2005; Productivity Commission, 2008) that impacts strongly on employed women who still undertake the bulk of the responsibility for housework and caring for children. This 'double' or 'second' shift has potential implications for the health of many Australian women. As one way to balance paid work and family, many Australian women shift to part-time hours or casual employment after having children. However, there is evidence to suggest that these jobs are often not very good positions, and this may pose a concern to

younger generations of women who are more invested in careers and education than were earlier generations of women.

How do younger generations of Australian women who are encouraged to pursue education and aspire to careers then combine work and family? If they continue in full-time employment; shift to part-time employment or move out of the workforce altogether after having children - is that what they want? Or have they compromised on something to which they feel they are entitled? And how does their combination of work and family, and the quality of these roles, impact upon their health and wellbeing? This project addresses these questions.

Publications: Life transitions and women's desired number of children: The impact of motherhood, relationships and employment. Johnstone M, Lucke J & Hewitt B. *Community, Work and Family*, 2020.
DOI:[10.1080/13668803.2020.1744526](https://doi.org/10.1080/13668803.2020.1744526)

The emotional impact of unfulfilled career aspirations for stay-at-home mothers in Australia. Johnstone M & Lucke J. *Journal of Family Issues*, 2021. <https://doi.org/10.1177/0192513X211030730>

Project ID: A360A	Predictors of mental health services utilisation and costs for Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Prof Catherine D'Este - National Centre for Epidemiology and Population Health (NCEPH), The Australian National University • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The aim of this research is to investigate the impact and utilisation of the 'Better Access Scheme' on health services among Australian women with mental health conditions. The research will provide in-depth analysis on the differing social, economic and health characteristics for women with mental health conditions who do and do not use the 'Better Access Scheme' and identify inequalities and possible inequities on health service use/costs and morbidity.</p>

- Publications:
- Mental health service use: Is there a difference between rural and non-rural women in service uptake? Dolja-Gore X, Loxton D, D'Este C & Byles J. *The Australian Journal of Rural Health*, 2014, 22(3); 92-100.
- Transitions in health service use among women with poor mental health: a 7-year follow-up. Dolja-Gore X, Loxton D, D'Este C & Byles JE. *Family Medicine and Community Health*, 2022, 10(2); e001481.
- Conference / Presentations:
- How effective are Australian mental health counselling for women with poor mental health?*
Dolja-Gore X. International Society of Pharmacoeconomics and Outcomes Research, Montreal, Canada, 31 May - 4 June 2014.
- Are younger Australian women with poor mental health receiving counselling services and how effective are they?*
Dolja-Gore X, Loxton D, D'Este C & Byles J. Population Health Congress 2015, Hobart, Tas, 6 - 9 September 2015.
- How effective are Australian mental health counselling services for women with poor mental health?*
Dolja-Gore X, Loxton D, D'Este C & Byles J. National Centre for Longitudinal Data: Longitudinal Data Conference 2016, Canberra, ACT, 25 - 27 October 2016.

Project ID: A384A	Salutogenesis and changes in self-rated health
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dr Lucy Leigh - Hunter Medical Research Institute • Ryan Tuckerman - Research Centre for Gender, Health and Ageing, University of Newcastle • Alexandra Denham - School of Medicine and Public Health, The University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: This qualitative research seeks to identify and elucidate different patterns and changes in health among women born between 1921-1926 who have completed Survey 6 and beyond into the 6-monthly surveys, as seen from the women's perspective. Analysis will be according to (a) Women classified into four contrasting groups according to their self-rated health, and (b) Women classified into groups according to subjective, functional and disease measures. In both cases, random samples of women who provided free text comments on the back pages of their surveys will be selected from each group and these comments will be analysed for content and against theories of salutogenesis and ageing in older women. The theory is that women who have a positive outlook, who have a sense that life has meaning and order, as well as good personal skills and social resources will experience ageing more positively, and hence will have better physical and mental health outcomes.

Conference /
Presentations: *ACH Group Sir Keith Wilson Oration. Inspired by ageing: Observations from 12,432 women and one researcher.*
Byles J. SA Gerontology Conference 2012. The Ageing Odyssey. It's All About the Journey, Adelaide, South Australia 14 September 2012.

Applying the salutogenic model for better health outcomes in older Australian women.
Tavener M. 47th Australian Association of Gerontology National Conference '50 not out. Aiming for a century', Adelaide, SA, 26 - 28 November 2014.

Plenary: Exploring salutary factors influencing womens health.
Tavener M. Optimising health: Salutogenic approaches to health practice, policy, research and education. University of Canberra. Canberra, ACT, 26 - 27 October 2016.

Project ID: A397

Differential contribution of fruit and vegetable intake to general health in the ALSWH

Lead Investigator:

- Dr Seema Miharshahi - School of Public Health, The University of Sydney

Student collaborator:	<ul style="list-style-type: none"> Putu Novi Arfirsta Dharmayani - Macquarie University
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	It is well known that increased consumption of sugar is one of the major contributing factors for the obesity epidemic. Recent research has controversially suggested that high fructose consumption may lead to increased lipogenesis and adiposity. Fruit and vegetable intakes are rarely evaluated separately when measuring associations with health status and the purpose of this analysis is to evaluate the differential effects of fruit and vegetables (separately) in relation to body weight and health status.
Publications:	<p>Fruit and vegetable consumption and prevalence and incidence of depressive symptoms in mid-age women: Results from the Australian Longitudinal Study on Women's Health. Mhrshahi S, Dobson A & Mishra G. <i>European Journal of Clinical Nutrition</i>, 2015, 69(5); 585-591.</p> <p>Fruit and vegetable consumption and depression symptoms in young women: Results from 1973 to 1978 cohort of the Australian Longitudinal Study on Women's Health. Dharmayani PNA, Mishra GD & Mhrshahi S. <i>European Journal of Nutrition</i>, 2022. doi: 10.1007/s00394-022-02926-8</p>
Conference / Presentations:	<p><i>Fruit consumption is associated with a lower risk of depression in mid age women.</i> Mhrshahi S. 20th International Congress of Nutrition, Granada, Spain, 15 - 20 September 2013.</p> <p><i>Are depressive symptoms associated with low fruit and vegetable intake in Australian women?</i> Mhrshahi S. AEA Annual Scientific Meeting 2013: Life Course Approach to Health and Wellbeing, Brisbane, Qld, 20 - 22 October 2013.</p> <p><i>Association between fruit and vegetable intake and depressive symptoms over 15 years in young women.</i> Dharmayani PNA. World Congress of Epidemiology, 3- 6 September 2021.</p>
Project ID: A425A	Longitudinal changes in maternal diet
Lead Investigator:	<ul style="list-style-type: none"> Dr Ellie D Arcy - Health Intelligence Unit, NSW Health

- Other collaborators:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
 - Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Prof Clare Collins - College of Health, Medicine and Wellbeing, The University of Newcastle
 - A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria
 - A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle
 - Dr Lucy Leigh - Hunter Medical Research Institute
 - Dr Christopher Oldmeadow - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, Hunter Medical Research Institute
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: This project seeks to evaluate dietary changes that occur longitudinally in women. The project uses self-reported dietary data from ALSWH's young cohort (1973-78) over two mailed surveys in 2003 and 2009. Women are classified as preconception, pregnant or not pregnant at each time point and their diets compared to observe the changes that occur as a woman ages or becomes pregnant. Overall, this project will examine the trends in dietary intake during childbearing years.

Conference / Presentations: *The longitudinal association between diet and pregnancy status among Australian women of reproductive age.*
Gresham E. 10th Asia Pacific Conference on Clinical Nutrition, Adelaide, SA, 26-29 November 2017.

Project ID: A429	Disordered eating in adolescence and young adulthood and its consequences for BMI trajectory in midlife
------------------	--

Lead Investigator:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Other collaborators:

- Prof Ilona Koupil - Stockholm University & Karolinska Institute
- Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland

- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Liaison person:

- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Synopsis:

Disordered eating (binge eating) and dieting is common among young women. It has been shown that clinically diagnosed eating disorders often have very serious health complications but it is not known what the long term consequences of the more prevalent, milder forms of disordered eating are. We will study how disordered eating in childhood, adolescence and young adult age is related to women's later body size, underweight, overweight, obesity and body satisfaction.

Project ID: A468

Population-level relevance of risk factors for cancer

Lead Investigator:

- A/Prof Maarit Laaksonen - School of Mathematics and Statistics, University of New South Wales

Other collaborators:

- Prof Graham Giles - Cancer Epidemiology Centre, Cancer Council Victoria
- Prof Claire Vajdic - Kirby Institute, University of New South Wales
- Prof Dianna Magliano - Baker IDI Heart and Diabetes Institute
- Prof Jonathan Shaw - Baker IDI Heart and Diabetes Institute
- Prof Paul Mitchell - Discipline of Clinical Ophthalmology and Eye Health, University of Sydney
- Prof Karen Canfell - The Daffodil Centre, University of Sydney, a joint venture with Cancer Council NSW
- A/Prof Robert MacInnis - Cancer Council Victoria
- Prof Emily Banks - Australian National University
- Prof Robert Cumming - University of Sydney
- Dr Barbara-Ann Adelstein - University of New South Wales
- Dr Maria Arriaga - Centre for Big Data Research in Health, University of New South Wales
- A/Prof Vasant Hirani - Concordia Health and Ageing in Men Project (CHAMP), The University of Sydney

- Peter Hull - Centre for Big Data Research in Health, University of New South Wales
 - Dr Tiffany Gill - Adelaide Medical School, The University of Adelaide
- Liaison person:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: Cancer prevention guidelines should be informed by population-level relevance of the risk factors. Measures such as the Population Attributable Fraction (PAF), which integrate both the strength of association and the prevalence of the risk factors in the population, can estimate that relevance. In this study, the population-level relevance of lifestyle-related risk factors for cancer in Australia will be studied for the first time by applying our recently published PAF measure and program to data from established large-scale Australian cohort studies, including ALSWH, linked to national cancer and death registries (relative risk estimates) and nationally representative health survey (exposure prevalence estimates). A pooled cohort study based on the individual cohorts will also be conducted, by applying our recently demonstrated meta-analysis techniques for PAF, to further enhance the precision of the estimates and to allow the analysis of less common cancers. Knowledge on national cancer burden is essential for targeting cancer interventions.

The project completion date has been extended due to the lead investigator (Maarit Laaksonen) currently being on maternity leave for a year (from 22/4/2022 until 21/4/2023) and accordingly the preparation of our remaining publications and presentation of corresponding findings being postponed until 2023 or 2024.

Publications: Cohort Profile: The burden of cancer attributable to modifiable risk factors - the Australian Cancer-PAF Cohort Consortium. Arriaga ME, Vajdic CM, Canfell K, MacInnis R, Hull P, Magliano DJ, Banks E, Giles GG, Cumming RG, Byles JE, Taylor AW, Shaw JE, Price K, Hirani V, Mitchell P, Adelstein B-A & Laaksonen MA. *BMJ Open*, 2017, 7(6); e016178.

The future burden of lung cancer attributable to current modifiable behaviours: A pooled study of seven Australian cohorts. Laaksonen MA, Canfell K, MacInnis R, Arriaga ME, Banks E, Magliano DJ, Giles GG, Cumming RG, Byles JE, Mitchell P, Gill TK, Hirani V, McCullough S, Shaw JE, Taylor AW, Adelstein B-A & Vajdic CM. *International Journal of Epidemiology*, 2018, 47(6); 1772-1783.

The future colorectal cancer burden attributable to modifiable behaviours: A pooled cohort study. Vajdic CM, MacInnis R, Canfell K, Hull P, Arriaga ME, Hirani V, Cumming RG, Mitchell P, Byles JE, Giles GG, Banks E, Taylor AW, Shaw JE, Magliano DJ, Marker J, Adelstein B-A, Gill TK & Laaksonen MA. *JNCI Cancer Spectrum*, 2018, 2(3).

The burden of pancreatic cancer in Australia attributable to smoking. Arriaga M, Vajdic CM, MacInnis RJ, Canfell K, Magliano DJ, Shaw JE, Byles JE, Giles FF, Taylor AW, Gill TK, Hirani, Cumming RG, Mitchell P, Banks E, Marker J, Adelstein BA & Laaksonen M. *Medical Journal of Australia*, 2019, 210(5); 213-220.

The preventable burden of breast cancers for premenopausal and postmenopausal women in Australia: A pooled study. Arriaga ME, Vajdic CM, Canfell K, MacInnis R, Banks E, Byles JE, Magliano DJ, Taylor AW, Mitchell P, Giles GG, Shaw JE, Gill TK, Klaes E, Velentzis LS, Cumming RG, Hirani V, Laaksonen MA. *International Journal of Cancer*, 2019, 145(9); 2383-2394.

The preventable burden of endometrial and ovarian cancers in Australia: A pooled cohort study. Laaksonen MA, Arriaga ME, Canfell K, MacInnis RJ, Byles JE, Banks E, Shaw JE, Mitchell P, Giles GG, Magliano DJ, Gill TK, Klaes E, Velentzis LS, Hirani V, Cumming RG & Vajdic CM. *Gynecological Oncology*, 2019, 153(3); 580-588.

The future burden of kidney and bladder cancers preventable by behaviour modification in Australia: A pooled cohort study. Laaksonen MA, MacInnis R, Canfell K, Giles GG, Hull P, Shaw JE, Cumming RG, Gill TK, Banks E, Mitchell P, Byles JE, Magliano DJ, Hirani V, Connah D & Vajdic CM. *International Journal of Cancer*, 2020, 146(3); 874-883.

The future burden of head and neck cancers attributable to modifiable behaviours in Australia: a pooled cohort study. Laaksonen MA, Canfell K, MacInnis RJ, Banks E, Byles JE, Giles GG, Magliano DJ, Shaw JE, Hirani V, Gill TK, Mitchell P, Cumming RG, Salagame U, Vajdic CM. *Cancer Epidemiology, Biomarkers & Prevention*, 2021, 30(8); 1566-1574.

Thyroid cancers potentially preventable by reducing overweight and

obesity in Australia: A pooled cohort study. Laaksonen MA, MacInnis RJ, Canfell K, Shaw JE, Magliano DJ, Banks E, Giles GG, Byles JE, Gill TK, Mitchell P, Hirani V, Cumming RG & Vajdic CM. *International Journal of Cancer*, 2022, 150(8); 1281-1290.

Conference /
Presentations:

Population-level relevance of risk factors for cancer in the presence of competing risk of death.

Laaksonen M. Australian Statistical Conference 2014 Sydney, NSW, 7 - 10 July 2014.

Population-level relevance of risk factors for cancer: pooled study of seven Australian cohorts.

Laaksonen M. World Cancer Congress, Melbourne, Victoria, 3 - 6 December 2014.

Burden of lung cancer attributable to lifestyle risk factors: Pooled study of seven Australian cohorts.

Laaksonen M et al. Sydney Cancer Conference 2016, Sydney, NSW, 22-23 September 2016.

Population-level relevance of lifestyle-related risk factors for pancreatic cancer.

Arriaga M, et al. Sydney Cancer Conference 2016, Sydney, NSW, 22-23 September 2016.

Burden of lung cancer attributable to modifiable lifestyle-related risk factors.

Laaksonen MA, et al. Annual 45 and Up Study Collaborators' Meeting, Sydney, NSW, 6 September 2016.

Burden of colorectal cancer in Australia attributable to lifestyle-related risk factors.

Laaksonen MA, et al. Clinical Oncology Society of Australia (COSA) 43th Annual Scientific Meeting, Gold Coast, Qld, 15 - 17 November 2016.

Burden of lung cancer in Australia avoidable by modifications to lifestyle-related risk factors.

Laaksonen M, Arriaga M, Hull P, Canfell K, MacInnis R, Banks E, Giles G, Mitchell P, Cumming R et al American Association for Cancer Research (AACR) Annual Meeting, Washington, DC, USA, 1-5 April 2017.

Burden of colorectal cancer attributable to lifestyle-related risk factors: A pooled study of seven Australian cohorts.

Vajdic CM, Arriaga M, Hull P, Canfell K, MacInnis R, Banks E, Giles G, Mitchell P, Cumming R et al. American Association for Cancer Research (AACR) Annual Meeting, Washington, DC, USA, 1-5 April 2017.

Population-level relevance of lifestyle-related risk factors for pancreatic cancer in Australia.

Arriaga M, Vajdic CM, Hull P, Canfell K, MacInnis R, Banks E, Giles G, Mitchell P, Cumming R et al. American Association for Cancer Research (AACR) Annual Meeting, Washington, DC, USA, 1-5 April 2017.

Premenopausal and postmenopausal breast cancer burden attributable to health behaviours and hormonal factors.

Arriaga M, Vajdic CM, Hull P, Canfell K, MacInnis R, Banks E, Giles G, Mitchell P, Cumming R, et al. Annual Scientific Meeting of the Clinical Oncology Society of Australia (COSA), Sydney, NSW, 13-15 November 2017.

A large linked study to evaluate the burden of cancer in Australia attributable to current modifiable behaviours.

Laaksonen MA, Arriaga ME, Canfell K, MacInnis R, Hull P, Banks E, Giles G, et al. International Population Data Linkage Conference, Banff, Alberta, Canada, 12-14 September 2018.

Future burden of cancer attributable to current modifiable behaviours: A pooled study of seven Australian cohorts.

Laaksonen MA, Arriaga ME, Canfell K, MacInnis R, Hull P, Banks E, Giles G, Mitchell P, et al. World Cancer Congress, Kuala Lumpur, Malaysia, 1-4 October 2018.

Future burden of cancer attributable to current modifiable behaviours.

Laaksonen MA, Arriaga ME, Canfell K, MacInnis R, Hull P, Banks E, Giles G, Mitchell P, et al. Sydney Cancer Conference, Sydney, NSW, 11-12 October 2018.

The preventable future burden of cancer in Australia.

Laaksonen MA, Canfell K, MacInnis R, Arriaga ME, Hull P, Banks E, Giles G, Mitchell P, Cumming R, Byles J, Magliano DJ, Shaw J, Taylor A, Gill TK, Hirani V, Marker J, McCullough S, Klaes E,

Connah D, World Congress of Epidemiology, 2021. Virtual, 3-6 September 2021.

Project ID: A476	A qualitative analysis of attributes toward healthy cognitive ageing in the 1921-26 cohort
Lead Investigator:	<ul style="list-style-type: none"> • Dr Cynthia Forlini - School of Medicine, Deakin University
Liaison person:	<ul style="list-style-type: none"> • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
Synopsis:	<p>This project focuses on women's attitudes toward cognitive wellness (also referred to as brain health, mental sharpness) later in life. Given current public health messages to maintain cognitive wellness as a part of productive ageing, we are interested in the perspectives of women in the 1921-26 cohort. We will examine how these women define cognitive wellness and how they have (or not) maintained cognitive wellness as they aged. These data will shed light on the perspective of older individuals particularly on the importance they ascribe to maintaining cognitive wellness and the challenges that they may face.</p>
Conference / Presentations:	<p><i>Are older Australian women following recommendations for healthy cognitive ageing?</i> Carter V, Lucke J & Forlini C. Emerging Health Policy Research Conference 2017. Menzies Centre for Health Policy, Sydney, NSW, 27 July 2017.</p> <p><i>Are older Australians following recommendations for healthy cognitive ageing? Evidence from the 1921-26 cohort of the Australian Longitudinal Study on Women's Health.</i> Forlini C, Carter V & Lucke J. International Neuroethics Society Annual Meeting. Washington D.C, USA, 10 November 2017.</p> <p><i>Ageing in a 'neuro-society'.</i> Forlini C. Neuroscience & Society: Ethical, Legal & Clinical Implications of Neuroscience Research Sydney, NSW, 14-15 September 2017.</p>
Project ID: A492B	The experience of breastfeeding for women with chronic health conditions

- Lead Investigator:
- Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
- Other collaborators:
- Annie Smith - The University of Newcastle
 - Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle
 - Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
 - Ms Peta Forder - Centre for Women's Health Research, The University of Newcastle
 - Dr Karen Mate - School of Biomedical Sciences and Pharmacy (Human Physiology), The University of Newcastle
 - Shannon Boschuetz - The University of Newcastle
 - Janelle Murphy - The University of Newcastle
 - Nick Egan - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Characterised by long-term development and persistent symptomatology, chronic conditions impact on healthcare expenditure and burden of disease. Women with chronic conditions may require specialised care and advice during postpartum to ensure optimal health for mother and baby. Existing evidence suggests that women with chronic conditions are less likely to breastfeed, although there is increasing evidence that breastfeeding is generally optimal for women with chronic conditions and their infants. Despite this, there are no specific guidelines to direct clinicians and patients in these situations. The aim of this project is to examine breastfeeding initiation and duration among women with chronic conditions and assess the impact of medication use.

Project ID: A525

Causal inference of smoking, nutrition, alcohol and physical activity on birth weight: A sibling analysis

- Lead Investigator:
- A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle

- Other collaborators:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
 - Jennifer Powers - Research Centre for Generational Health and Ageing, The University of Newcastle
 - Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
 - Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
 - Peta Forder - Centre for Women's Health Research, The University of Newcastle
 - Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
 - Dr Ellie D Arcy - Health Intelligence Unit, NSW Health
 - A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReditSS) Unit, The University of Newcastle

- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Residual confounding is a major problem in observational studies, meaning that results must be interpreted with caution. Data from siblings provides the opportunity to better control for family characteristics, thereby reducing residual confounding and increasing causal inference. Sibling analysis allows for a separation of within-family effects from between-family effects and simultaneous estimation of both. We will apply sibling analysis to birth weight data from the state-based Perinatal Data Collections linked to the 1973-1978 ALSWH cohort. We intend to focus on the role of four key modifiable lifestyle factors: smoking; nutrition (diet and weight); alcohol; and physical activity, on birth weight.

Project ID: A574A	Finding a life without domestic violence: Analysis of free-text responses from the Australian Longitudinal Study on Women's Health surveys
-------------------	---

- Lead Investigator:
- Dr Lyn Francis - Western Sydney University

- Other collaborators:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Prof Virginia Stulz - School of Nursing and Midwifery, Western Sydney University

- Muluken Dessalegn Muluneh - Western Sydney University

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Qualitative thematic data analysis will comprise of free text responses to the open-ended question, 'Have we missed anything?' included in the ALSWH surveys. Responses that indicate experiences of abuse in relationships and women's decision making regarding staying or leaving abusive relationships will be examined. The researcher will identify if the issue of social support (formal and/or informal) is raised by participants in relation to abuse or violence and what helped or hindered disclosure of abuse and/or help seeking in the context of abuse and leaving or ending such relationships.

Quantitative data collected from the surveys will ensure diversity in the sample and consider whether women identified domestic violence within their relationships.

Free text data has been analysed with first draft paper currently in progress. Hope to complete by end of 2022 with second paper to follow 2023.

Conference /
Presentations:

Finding a Life Without Domestic Violence: A Mixed Methods Study.
Francis L & Stulz V. 4th Australian Nursing and Midwifery
Conference, Newcastle, NSW, 2 - 3 May 2019.

*Finding a Life Without Domestic Violence: Analysing Free Text
Data from the Australian Longitudinal Study of Women's Health
(ALSWH).*

Francis L, Stulz V, (presenters) Dessalegn M, & Loxton D. Stop
Domestic violence Conference, Francis L, Stulz V, (presenters)
Dessalegn M, & Loxton D. 2 December 2021.

*Finding a life free of domestic violence: Findings from free text
comments over time in the Australian Longitudinal Study of
Women's Health (ALSWH).*

Francis L, (presenter) Stulz V, Dessalegn M, & Loxton D. Moving
Forward in Unity: Nursing through the Covid-19 Year 2021, Virtual
- Mae Fah Luang University Thailand, 2 December 2021.

Finding a life free of domestic violence: Findings from free text

comments over time in the Australian Longitudinal Study of Women's Health (ALSWH).

Francis L, Stulz V, (presenters) Dessalegn M & Loxton D. Women's Health Matters Symposium, Virtual - Western Sydney University, 9 December 2021.

Finding a Life without domestic violence : Analysing free text data from the ALSWH.

Francis L & Stulz V. Stop Domestic Violence Conference 2022, Gold Coast, QLD, 30 November - 2 December 2022.

Finding a Life without domestic violence : Analysing free text data from the ALSWH.

Francis L & Stulz V. Mae Fah Luang University (MFIU), Moving Forward in Unity: Nursing through the COVID-19 Pandemic. Section of conference. Online, 22-23 November 2021.

Project ID: A594A	The impact of general practice continuity of care on health service utilisation and costs
Lead Investigator:	<ul style="list-style-type: none"> • Dr Michael Wright - Health Economics Centre for Health Economics Research and Evaluation, University of Technology Sydney
Other collaborators:	<ul style="list-style-type: none"> • Prof Jane Hall - Centre for Health Economic Research and Evaluation, University of Technology Sydney • Prof Kees Van Gool - Centre for Health Economics Research and Evaluation, University of Technology Sydney • Dr Serena Yu - University of Technology Sydney
Liaison person:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>This research investigates the relationship between general practice attendance patterns and health outcomes in order to provide evidence about the best way to deliver general practice services to get the best health outcomes. The initial focus of this research will be the association between continuity of care and recommended investigations (such as cancer screening, pathology and radiology testing), use of GP services, prescribing and secondary care utilisation (such as hospital admission and emergency department attendances).</p>

Project ID: A596	Factors affecting progression of disability
------------------	--

Lead Investigator:	<ul style="list-style-type: none"> • Dr Andrew Kingston - Newcastle University
Other collaborators:	<ul style="list-style-type: none"> • Prof Kaarin Anstey - Australian National University, Centre for Mental Health Research • Dr Andrew Kingston - Newcastle University • Prof Carol Jagger - Institute of Ageing and Health, Newcastle University
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Disability is often a feared event for older people and maintenance of ability is key to ensuring our extra years are healthy ones. Disability is usually defined as difficulty in items of mobility and activities of daily living (ADLs): Instrumental (IADLs) e.g., shopping, laundry; and Basic (BADLs) e.g., dressing, toileting. It is well known that people meet difficulty with these activities in a specific order but this has mostly been determined by cross-sectional analyses and little is known about the average times between onset of difficulty with activities or the factors which may influence them.</p>
Conference / Presentations:	<p><i>Impact of obesity on active and cognitive impairment-free life expectancies in older Australians.</i></p> <p>Kingston A, Byles J, Anstey K & Jagger C. 21st IAGG World Congress of Gerontology and Geriatrics, San Francisco, United States of America, 23-27 July 2017.</p>

Project ID: A638	Young Australian mothers' perceptions of life and learning
Lead Investigator:	<ul style="list-style-type: none"> • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Christine Sefton - The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	The project will explore individual perceptions, feelings and behaviour of young mothers.
Project ID: A642	Perceptions of older women aged 87-92 about their health needs and health concerns
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Lynette MacKenzie - Faculty of Health Sciences, The University of Sydney
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	In 2013 the oldest cohort of the ALSWH (1921-1926) were aged 87-92 years, and represented the survivors of this cohort. We plan to analyse the qualitative comments offered by these women in response to the question 'Is there anything we have missed?' to identify what their individual health concerns and/or events were over the previous six months (in two surveys administered) that are not addressed in the standardised items contained within the survey. A mixed methods approach will allow us to link any key themes emerging from the qualitative data with specific characteristics of the women that may offer some new insights about the experiences of this cohort over a year.
Conference / Presentations:	<p><i>Ageing at very old ages - perspectives of women from the Australian Longitudinal Study on Women's Health.</i></p> <p>Byles J. 53rd AAG Conference, 18-20 November 2020.</p>

Project ID: A646	Longitudinal analyses of yoga use and health status among Australian women
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Romy Lauche - Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney
Other collaborators:	<ul style="list-style-type: none"> • Prof David Sibbritt - Faculty of Health, University of Technology Sydney • Dr Holger Cramer - Department of Internal and Integrative Medicine, University of Duisburg-Essen
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>This project examines the prevalence of yoga use over time, continuity of yoga use and predictors for (dis-)continuation. This project also examines the longitudinal associations of yoga/meditation with health status or well-being among participants with diagnosed mental health or physical conditions such as anxiety, depression, hypertension, arthritis or back pain.</p>
Project ID: A647	The longitudinal impact of intimate partner violence on Australian women's mental health, employment, health service use and personal interactions
Lead Investigator:	<ul style="list-style-type: none"> • Prof Reinie Cordier - Social Work, Education and Community Wellbeing, Northumbria University
Other collaborators:	<ul style="list-style-type: none"> • Dr Yu-Wei Chen - Faculty of Health Sciences, The University of Sydney • Prof Donna Chung - School of Occupational Therapy and Social Work, Curtin University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>This project aims to investigate the long-term impact of intimate partner violence on women in the following domains: 1. Women's mental health and wellbeing 2. Women's ability to work 3. Women's utilisation of health services 4. Women's personal/social interactions The dependant variable that will be used for the study is the question about abuse that was asked in waves 2 and 3 in the young cohort and the partner abuse question (Community Composite Abuse Scale) waves 4-6 in the young cohort. We also aim to investigate the</p>

psychometric properties of the Community Composite Abuse Scale using Rasch analysis.

Conference /
Presentations:

The influence of intimate partner violence on young women's ability to work.

Cordier R, Chen Y-W, Chung D & Loxton D. World Federation of Occupational Therapy Congress, Cape Town, South Africa, 21-25 May 2018.

Project ID: A655	Association between insomnia and total energy intake and diet quality
------------------	--

- | | |
|----------------------|--|
| Lead Investigator: | <ul style="list-style-type: none"> • Dr Amani Hamad Alhazmi - King Khalid University |
| Other collaborators: | <ul style="list-style-type: none"> • Dr Elizabeth Stojanovski - School of Mathematical & Physical Sciences, University of Newcastle • A/Prof Mark McEvoy - La Trobe Rural Health School, La Trobe University • Dr Jency Thomas - LaTrobe University |
| Liaison person: | <ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle |

Synopsis: In this project the quantitative survey data will be interrogated to examine whether women (1946-51 cohort) with insomnia symptoms had greater energy intake and/or a lower diet quality as assessed with the use of diet quality score.

Project ID: A670	Oral Health - findings from the Australian Longitudinal Study of Women's Health
------------------	--

- | | |
|----------------------|---|
| Lead Investigator: | <ul style="list-style-type: none"> • A/Prof Ratilal Lalloo - School of Dentistry, The University of Queensland |
| Other collaborators: | <ul style="list-style-type: none"> • Chris Sexton - School of Dentistry, The University of Queensland |
| Liaison person: | <ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland |

Synopsis: Oral health studies are generally cross-sectional and seldom report longitudinal follow-up of study participants. The Australian Longitudinal Study on Women's Health offers an opportunity to measure the oral health across a number of surveys, where the same/similar questions were asked; to assess changes in self-reported oral health status and relationships between surveys and potential

determinants of oral health, such as socioeconomic status, private health insurance, location, smoking and menopause.

Conference /
Presentations: *Considerations for the analysis of longitudinal data.*
Sexton C, Lalloo R & Mishra G. International Association for Dental Research Asia Pacific Region (IADR-APR) 2019, Brisbane, QLD, 28 - 30 November 2019.

Project ID: A671	When the clock is ticking: Impact of the extended Medicare safety net on the uptake of Assisted Reproductive Technology
------------------	--

Lead Investigator:	<ul style="list-style-type: none"> • Dr Megan Gu - Macquarie University
Other collaborators:	<ul style="list-style-type: none"> • Prof Kees Van Gool - Centre for Health Economics Research and Evaluation, University of Technology Sydney • A/Prof (Jenny) Chun Yee Wong - International University of Japan
Liaison person:	<ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: This project investigates the trends in Assisted Reproductive Technology (ART) services usage with the introduction of Extended Medicare Safety Net in 2004 which provided greater subsidy for ART services and the subsequent implementation of caps in 2010 which reduced the subsidy. It also examines the determinants for women's decision to use ART services including sociodemographic characteristics. We utilise a unique resource by linking the survey data from the Australian Longitudinal Study on Women's Health with national administrative health datasets, Medical Benefits Schedule (MBS) and Pharmaceutical Benefits Schedule (PBS) and then deploying hurdle models to examine the incidence and frequency of ART use among women. The study will shed light on the effect of government policies on ART services in terms of utilisation and will also examine the determinants driving the decision to undertake these services.

Project ID: A676	Use of GP, other Medicare and hospital services by people with dementia
------------------	--

Lead Investigator:	<ul style="list-style-type: none"> • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
--------------------	--

- Other collaborators:
- Peta Forder - Centre for Women's Health Research, The University of Newcastle
 - Prof Danielle Mazza - Department of General Practice, Monash University
 - Prof Robert Sanson-Fisher - Hunter Medical Research Institute (HMRI), The University of Newcastle
 - Prof. Colette Browning - Primary and Allied Health Care, Monash University
 - Dr Jamie Bryant - School of Medicine and Public Health, The University of Newcastle
- Liaison person:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: The General Practitioner (GPs) is the cornerstone of medical care for people with dementia, and central to much of the care for people with dementia. They usually know the person with dementia well, having cared for them for many years, and are often the first clinician to become aware of the person's concerns about cognitive decline. Subsequent to diagnosis, the ongoing care and medical management of dementia is also principally coordinated and monitored by the GP, in partnership with the person and their family, and with specialist consultation. This study will assist in identifying use of GP consultations and other services eligible for Medicare rebates by women with dementia, and examine use these services, and health outcomes for women with dementia.

Publications: Use of medical services by older Australian women with dementia: A longitudinal cohort study. Byles J, Cavenagh D, Bryant J, Mazza D, Browning C, O'Loughlin S & Sanson-Fisher R. *Australian and New Zealand Journal of Public Health*, 2021, 45:497-503.

Project ID: A678	Retention of participants over 21 years for three age cohorts
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Anna Graves - Centre for Women's Health Research, The University of Newcastle

- Peta Forder - Centre for Women's Health Research, The University of Newcastle
- Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
- Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle
- Nick Egan - Centre for Women's Health Research, The University of Newcastle

Liaison person: • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Effective participant retention is a challenge for longitudinal cohort studies. Over the past 25 years ALSWH has retained participants in three cohorts who were aged 18-23, 45-50 and 70-75 when the study first collected data in 1996. Women leave the study for a variety of reasons and these differ by cohort. The aims of this project are to examine the predictors of attrition and retention across the original three ALSWH cohorts and to examine the effectiveness of various retention methods.

The analysis for this project is largely complete, but the writing of the draft is still ongoing.

Project ID: A689	Supplement intake for women of reproductive age (preconception or pregnant) from the Australian Longitudinal Study on Women's Health
------------------	---

Lead Investigator: • Dr Ellie D Arcy - Health Intelligence Unit, NSW Health

Other collaborators: • Elle McKenna - Griffith University

• A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle

• Dr Lucy Leigh - Hunter Medical Research Institute

• Prof Anthony Perkins - Griffith University

Liaison person: • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: During pregnancy, there is an increased requirement for specific micronutrients to support foetal growth and development as well as maternal metabolism. Suboptimal nutrition during this time, may lead to impaired foetal growth and an increased risk of adverse outcomes. The proposed project seeks to evaluate and explore the trends in

nutrient supplement intake in women of reproductive age, across their childbearing years and assess the benefits and harms on pregnancy and birth outcomes. The project will use self-reported medication data from the 1973-78 ALSWH cohort, reported over three surveys in 2009 (Survey 5), 2012 (Survey 6) and 2015 (Survey 7). Women will be classified as preconception, pregnant or not pregnant at each time point.

- Publications: Dietary supplement use during preconception: The Australian Longitudinal Study on Women's Health. McKenna E, Hure J, Perkins A, Gresham E. *Nutrients*, 2017, 9(10); E1119.
- Conference / Presentations: *Dietary supplement use during preconception and pregnancy: the Australian Longitudinal Study on Women's Health.* McKenna E. 10th Asia Pacific Conference on Clinical Nutrition, Adelaide, SA, 26-29 November 2017.

Project ID: A690	The direct and indirect costs associated with endometriosis in Australia
Lead Investigator:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Ingrid Rowlands - Australian Women and Girls' Health Research Centre, The University of Queensland • A/Prof Lisa Hall - School of Public Health, The University of Queensland • Prof Grant Montgomery - Institute for Molecular Biosciences, The University of Queensland • A/Prof Tracy Comans - School of Public Health, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	This study aims to match women's self-reported doctor diagnosis of endometriosis with Commonwealth Medical Benefits Schedule (GP, Specialist visits) and state-based Admitted Patients Collections to provide evidence on the direct economic impacts of endometriosis in Australia from 1996 to 2016. It will also examine lost/reduced work

productivity of women with endometriosis in terms of hours in paid work and unemployment (indirect economic impacts).

Project ID: A696A	Unintended pregnancy and contraceptive use in women with chronic disease: Providing an evidence-base for Australia
Lead Investigator:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • A/Prof Deborah Bateson - Family Planning NSW • Prof Jayne Lucke - School of Public Health, The University of Queensland • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle • Dr Lucy Leigh - Hunter Medical Research Institute • Dr Zanna Franks - The University of Newcastle • A/Prof Aaron Sverdllov - University of Newcastle • A/Prof Vanessa Murphy - The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Unintended pregnancy remains high in developed countries despite access to high quality sexual and reproductive services. Some evidence exists that women with chronic diseases experience unintended pregnancy at significantly higher rates than women without chronic disease. For these women, unintended pregnancies are associated with serious adverse maternal and perinatal outcomes, including congenital abnormalities, pre-term labour, spontaneous abortion, and foetal death. Optimised preconception care and reproductive life planning is critical to the prevention of unintended pregnancies and reduction in pregnancy-related complications in</p>

women with chronic diseases. Little information exists in the Australian context. This project aims to fill this knowledge gap.

Two papers have been published to date on chronic disease ascertainment and contraceptive patterns among young women with chronic disease. A third manuscript reporting on contraceptive patterns among women with chronic disease in later reproductive life has been submitted for publication and is in pre-print form. A further two analyses focused on long-acting reversible contraceptive use and switching have been completed and are currently being written up for publication. Analyses around unwanted pregnancy are yet to be conducted.

Publications: Increased chronic disease prevalence among the younger generation: findings from a population-based data linkage study to inform chronic disease ascertainment among reproductive-aged Australian women. Harris ML, Egan N, Forder PM & Loxton D. *Plos One*, 2021, 16(8); e0254668.

Patterns of contraceptive use among young Australian women with chronic disease: Findings from a prospective cohort study. Harris ML, Egan N, Forder PM, Bateson D, Sverdlov AL, Murphy VE & Loxton D. *Reproductive Health*, 2022, 19(1):111. doi: 10.1186/s12978-022-01413-x.

Project ID: A699	Using geocoded data to assign environmental exposures
Lead Investigator:	<ul style="list-style-type: none"> A/Prof Luke Knibbs - Honorary Principal Fellow, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> Dr Tafzila Akter Mouly - School of Public Health, The University of Queensland Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland David Fitzgerald - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	People's exposure to adverse environmental hazards like air pollution and noise is highly dependent on where they live. This is also true for exposures that may be beneficial, like green spaces. This project will use geocoded data from the ALSWH and MatCH studies (i.e., latitude and longitude of each residential address) to develop an exposure

database that will then be available to ALSWH researchers to assess the associations between environmental exposures and health outcomes in these cohorts.

Project ID: A705	Patterns of alcohol consumption over time and their relationship to mortality and breast cancer risk
Lead Investigator:	<ul style="list-style-type: none"> • Yi Yang - The University of Melbourne
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria • Prof Dallas English - The University of Melbourne • Dr Brigid Lynch - Cancer Council Victoria • Dr Pierre-Antoine Dugue - Cancer Council Victoria • Dr Harindra Jayasekara - Cancer Council Victoria
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Alcohol consumption is an important modifiable risk factor of mortality and breast cancer risk. How alcohol consumption over time affects mortality and risk of breast cancer remains unclear. Our aims are to study the risk of death and incidence of breast cancer in relation to changes in pattern of consumption over time. This will offer a better understanding of how different long-term drinking profiles from mid-life onwards are related to subsequent risk of mortality and breast cancer risk.

Project ID: A709	Does diet quality predict Body Mass Index (BMI) and weight gain in women of reproductive age?
Lead Investigator:	<ul style="list-style-type: none"> • Dr Ellie D Arcy - Health Intelligence Unit, NSW Health
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Prof Clare Collins - College of Health, Medicine and Wellbeing, The University of Newcastle • A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria • A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle

- Dr Lucy Leigh - Hunter Medical Research Institute
 - Dr Christopher Oldmeadow - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, Hunter Medical Research Institute
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: This project seeks to evaluate dietary changes that occur longitudinally in women as a predictor of BMI and weight gain. The project will use self-reported dietary data from ALSWH's young cohort (1973-78), over two mailed surveys in 2003 and 2009. Women will be classified according to BMI (underweight, healthy, overweight, and obese) at each time point and their diets compared to observe the changes that occur overtime.

Project ID: A718	How are different patterns of physical activity, sleep and diet related to health status and do these relationships differ by socio-demographics?
------------------	--

- Lead Investigator:
- Prof Mitch Duncan - School of Medicine and Public Health, The University of Newcastle
- Other collaborators:
- A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, The University of Newcastle
 - Dr Stina Oftedal - Child Health Research Centre, The University of Queensland
 - Prof Matthew Buman - Arizona State University
- Liaison person:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis: Physical activity, sleep and dietary behaviours are related to various health outcomes including diabetes, cardiovascular disease, and quality of life. Little is known however about the combined patterns of these behaviours, how the patterns differ between different population groups or influence risk of ill health. This study will identify the different patterns of these behaviours in middle aged women, examine how these behaviours change over time and how the patterns influence risk of diabetes, cardiovascular disease, poor quality of life and all-cause mortality. The study will also examine if the relationship between behaviour patterns and health outcomes differ by family structure (married, caring responsibilities) occupation (e.g., shift work, employment level, ASCO category), education,

socio-economic status (e.g., income, financial stress), and residential location (e.g., metropolitan, regional, remote). Findings will help to better understand how these complex behaviours influence health and enable health promotion efforts to be directed to those in greatest need.

Publications: Joint association of physical activity and sleep difficulties with the incidence of hypertension in mid-age Australian women. Duncan MJ, Holliday EG, Oftedal S, Buman M & Brown WJ. *Maturitas*, 2021, 149; 1-7.

Conference / Presentations: *Improving the understanding of sleep, and physical activity as CVD risk factors.*
Duncan MJ. Cardiac Society of Australia and New Zealand (CSANZ) Annual Scientific Meeting 2019 Duncan MJ. 9 August 2019.

Project ID: A722A	Prevention and early intervention for maternal mental illness: A research program that will inform policy and clinical practice
--------------------------	--

Lead Investigator:

- Dr Nicole Reilly - University of Wollongong

Other collaborators:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Peta Forder - Centre for Women's Health Research, The University of Newcastle
- Nick Egan - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: In Australia, local, state and national initiatives for maternal mental health, such as the NSW Safe Start initiative and National Perinatal Depression Initiative, have focused on prevention and early intervention for nearly two decades. The aims of this research are to 1) examine changes in mental health service use and psychological wellbeing among women who gave birth in Australia over the previous 20 years, 2) evaluate the impact of key perinatal-specific mental health initiatives on these outcomes, and 3) examine adherence to best practice guidance for the prevention and management of maternal mental health, and to identify barriers and facilitators to adherence.

Publications: Increases in use of Medicare Benefits Schedule mental health items among women who gave birth in New South Wales, 2009-2015. Reilly N, Egan N, Austin M-P, Forder PM & Loxton D. *Australian and New Zealand Journal of Public Health*, 2021, 46(1):75-80.

Project ID: A723

Are older women prescribed Amiodarone receiving recommended thyroid function tests?

Lead Investigator:

- Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle

Other collaborators:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Prof Kichu Nair - School of Medicine and Public Health, The University of Newcastle
- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
- Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
- Emily Princehorn - Centre for Women's Health Research, The University of Newcastle
- Daniel Ryan - The University of Newcastle
- Samin Uddin - The University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Amiodarone is one of the most popular antiarrhythmic drugs prescribed in Australia. It is commonly used to treat atrial fibrillation, ventricular tachycardia and prescribed to patients at high risk of cardiac death. Amiodarone however has a number of adverse effects and is therefore only prescribed when necessary. Due to its structural similarities with thyroxine, it is recommended that thyroid function tests be conducted every six months to check for thyroid dysfunction. These guidelines however are not well adhered to by health professionals. Therefore this project will examine the risk factors for non-adherence to thyroid function testing in older Australian women prescribed Amiodarone.

Project ID: A724

Beyond successful ageing: Longevity and healthy ageing among Australian women

- Lead Investigator:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Other collaborators:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle
 - Dr Paul Kowal - Study on global AGEing and adult health (SAGE), World Health Organization
 - Dr Lucy Leigh - Hunter Medical Research Institute
 - Prof Carol Jagger - Institute of Ageing and Health, Newcastle University
 - A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReditSS) Unit, The University of Newcastle
 - Dr John Beard - Department of Ageing and Life Course Health, World Health Organisation
 - Dr Md Mijanur Rahman - The Daffodil Centre, University of Sydney, a joint venture with Cancer Council NSW
 - Emily Princehorn - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: We will examine changes within cohorts of Australian women born 1921-26 and 1946-51 to identify trajectories of Healthy Ageing as defined by WHO, and compare these as to whether or not women can be considered to have achieved Successful Ageing using disease and disability based models of ageing (1). We argue that Healthy Ageing allows for more diversity in ageing trajectories, with interaction between intrinsic capacities and external supports.

Publications: Successful ageing from old to very old: A longitudinal study of 12,432 women from Australia. Byles JE, Rahman MM, Princehorn EM, Holliday EG, Leigh L, Loxton D, Beard J, Kowal P & Jagger C. *Age and Ageing*, 2019, 48(6); 803-810.

Predicting chronic disease, disability and mortality in a large cohort of older Australian women: A Markov multi-state modelling approach. Rahman M, Jagger C, Princehorn E, Holliday E, Leigh L, Loxton D, Beard J, Byles J & Kowal P. *SSRN Electronic Journal*,

2021. <https://ssrn.com/abstract=3821481>

Onset and progression of chronic disease and disability in a large cohort of older Australian women. Rahman M, Jagger C, Princehorn EM, Holliday EG, Leigh L, Loxton D, Beard J, Kowal P, & Byles JE. *Maturitas*, 158(1); 25-33.

The impact of education and lifestyle factors on disability-free life expectancy from mid-life to older age: A multi-cohort Study. Rahman M, Jagger C, Leigh L, Holliday E, Princehorn E, Loxton D, Kowal P, Beard J & Byles J. *International Journal of Public Health*, 2022, 67. doi: [10.3389/ijph.2022.1605045](https://doi.org/10.3389/ijph.2022.1605045)

Conference /
Presentations:

Prospects for healthy ageing and longevity for future generations of Australian women.

Byles J. 2018 International Centenarian Consortium (ICC) Meeting, Blue Mountains, NSW, 5 - 6 September 2018.

Successful ageing and longevity among Australian women.

Byles J. 2nd International Living to 100 Conference, Darling Harbour, NSW, 7 - 8 September 2018.

Successful ageing from old to very old: Findings from the Australian Longitudinal Study on Women's Health.

Byles J, Rahman M, Princehorn E, Holliday E & Jagger C. IAGG-ER 9th European Congress of the International Association of Gerontology and Geriatrics, Gothenburg, Sweden, 23 - 25 May 2019.

Successful ageing from old to very old: Findings from the Australian Longitudinal Study on Women's Health.

Byles J. 52nd AAG Conference, Sydney, NSW, 5-8 November 2019.

Impact of life-style factors on health life expectancy from mid-to-older age: Evidence from Australian Longitudinal Study on Women's Health.

Rahman M & Byles J 53rd AAG Conference, Virtual Conference, 18-20 November 2020.

Project ID: A728

Understanding the relationships between weight gain, physical activity and indicators of women's reproductive health

Lead Investigator:

- Dr Gabriela Mena Ribadeneira - The University of Queensland

- Other collaborators:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
 - Dr Gregore Mielke - School of Public Health, The University of Queensland.
 - Dr Jessica Grieger - The University of Adelaide
- Liaison person:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis: The purpose of this research is to better understand the relationships between weight gain, physical activity and aspects of young women's reproductive health, with a focus on the potential effects of physical activity and menstrual irregularities on weight-reproductive health relationships. We will examine relationships between weight gain and indicators of reproductive health in young women (ability to have children, use of in vitro fertilisation (IVF), use of fertility hormones, PCOS, endometriosis etc). As women gain weight, they may develop menstrual irregularities that are precursors to infertility. However, physical activity may modify the relationship between weight gain and these health outcomes. The results will inform the development of practices which may help to establish better reproductive health in young women.

Publications: Do physical activity, sitting time and body mass index affect fertility over a 15-year period in women? Data from a large population-based cohort study. Mena GP, Mielke GI & Brown WJ. *Human Reproduction*, 2020, 35(3); 676-683.

Prospective associations between physical activity and BMI with irregular periods and heavy menstrual bleeding in a large cohort of Australian women. Mena GP, Mielke GI & Brown W. *Human Reproduction*, 2021, 36(6); 1481-1491.

Conference / Presentations: *Do physical activity and sitting time affect associations between BMI and fertility in women? Data from a large population-based cohort study.*

Mena GP, Mielke GI & Brown WJ. The 2019 ASICS Sports Medicine Australia (SMA) Conference, Sunshine Coast, QLD 23 – 26 October 2019.

Do physical activity and sitting time affect associations between BMI and fertility in women? Data from a large population-based cohort study.

Mena GP, Mielke GI & Brown WJ. People, Partnership,

Performance HMNS Postgraduate Conference, The University of Queensland, Brisbane, Qld, 21 October 2019.

Longitudinal associations between physical activity and BMI with menstrual symptoms: Data from a large population-based cohort study.

Mena GP, Mielke GI & Brown WJ. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

High levels of physical activity are associated with a lower occurrence of heavy menstrual bleeding: Data from a large population-based cohort study.

Mena GP, Mielke GI & Brown WJ. 2021 Sports Medicine Australia (SMA) Conference, Melbourne, VIC, 6-9 October 2021.

The role of physical activity in fertility.

Mena G. FACTS Conference 2022 For the Future of Women's Health, Virtual, 23 July 2022.

Project ID: A733	Exploring the role of being overweight or obese in participation in mammographic breast screening in New South Wales: A validation of self-reported breast screening participation in the ALSWH
Lead Investigator:	<ul style="list-style-type: none">• Dr Kate McBride – Western Sydney University
Other collaborators:	<ul style="list-style-type: none">• Prof Julie Byles – Centre for Women's Health Research, The University of Newcastle• Prof Andrew Page – School of Medicine and the Translational Research Institute, Western Sydney University• Sithum Munasinghe – Translational Health Research Institute. Western Sydney University
Liaison person:	<ul style="list-style-type: none">• Prof Julie Byles – Centre for Women's Health Research, The University of Newcastle
Synopsis:	Overweight and obese women are at higher risk of breast cancer and worse outcomes, yet preliminary data indicates breast screening participation is lower in this group. Approximately 47% of the female NSW population is overweight or obese. This project intends to link BreastScreen NSW data with longitudinal BMI data from the 1946-51 cohort to examine how weight affects screening at different time points. This analysis is significant as it may identify a currently under-acknowledged high-risk population who are not participating in

breast-screening. This study also aims to validate self-reported ALSWH screening data.

All data analyses have now been completed. Marginal structural modelling demonstrates there is a dose response relationship between increasing weight and decreasing participation in breast screening. A number of other factors were identified that are likely to be impacting on breast screening participation. We plan to develop tailored interventions to address those women less likely to screen. The results are currently being written up and will be provided in a final written report which will also include a report on validation of self-reported ALSWH screening data. This latter aim proved difficult given many women seem to use private imaging for breast screening.

Project ID: A736A	Screen time in Australian children: Socioeconomic, maternal, parenting, time use and family environment factors associated with meeting screen time guidelines (Analysis of data from the MatCH study)
Lead Investigator:	<ul style="list-style-type: none"> A/Prof Leigh Tooth – Australian Women and Girls’ Health Research Centre, University of Queensland
Other collaborators:	<ul style="list-style-type: none"> Prof Gita Mishra – Australian Women and Girls’ Health Research Centre, The University of Queensland Richard Hockey – Australian Women and Girls’ Health Research Centre, The University of Queensland Dr Katrina Moss – Australian Women and Girls’ Health Research Centre, The University of Queensland Dr Gregore Mielke – School of Public Health, The University of Queensland.
Liaison person:	<ul style="list-style-type: none"> A/Prof Leigh Tooth – Australian Women and Girls’ Health Research Centre, University of Queensland
Synopsis:	<p>Recently released guidelines from the Australian Government recommends maximum daily screen time for children aged 0 - <1, 1-2, 3-5 and 5-12 years. Previous Australian research has linked screen time in children with socioeconomic factors in their parents (for example years of education) as well as with parenting style and home environment, however the majority of this research has investigated this issue in older children, has not linked long standing maternal factors and has not examined associations between and within families. This research aims to determine the associations between children’s screen time and sleep, diet, physical activity, physical and</p>

cognitive development, quality of life, behaviour, maternal factors, parenting styles and the home environment.

We are currently finalising a paper looking at adherence to screen time, physical activity and sleep guidelines in families with multiple children. Next on the list is an examination of NAPLAN and AEDC outcomes and screen time.

- Publications:**
- Adherence to screen time guidelines among families in Australia with children of different ages. Tooth LR, Moss KM & Mishra GD. *JAMA Pediatrics*, 2022, 176(5):517-519.
- Screen time and child behaviour and health-related quality of life: Effect of family context. Tooth LR, Moss KM & Mishra GD. *Preventive Medicine*, 2021, 153; 106795.
- Adherence to screen time recommendations for Australian children aged 0-12 years. Tooth L, Moss K, Hockey R & Mishra G. *Medical Journal of Australia*, 2019, 211(4); 181-182.
- Conference / Presentations:**
- Are screen time guidelines actually working for Australian families?*
Tooth L, Moss K, Hockey R, Mishra G. Population Health Congress, Adelaide, SA, 21-23 September 2022.
- How adherence to Australian screen time guidelines differs by age in Australian children aged 0 to 12 years.*
Tooth L, Hockey R, Moss K, Mishra G. Australasian Epidemiological Association Annual Scientific Meeting, Brisbane, 23-25 October 2019. (Rapid Fire and Poster presentation).

Project ID: A739	Examining the use of infertility treatment services in women who self-report PCOS.
------------------	---

- Lead Investigator:**
- Dr Renae Fernandez - University of Adelaide
- Other collaborators:**
- A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University
 - Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University
 - Dr Jacqueline Boyle - Monash Centre for Health Research and Implementation, Monash University
 - A/Prof Alice Rumbold - South Australian Health and Medical Research Institute Women and Kids

- Prof Vivienne Moore - School of Public Health, The University of Adelaide
 - A/Prof Michael Stark - Paediatrics and Reproductive Health, The University of Adelaide
 - Prof Michael Davies - Robinson Research Institute, The University of Adelaide
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: This project will use data from medical insurance claims to quantify the extent of use of fertility services among women who self-report PCOS. This will provide a much more complete picture of the current reproductive health and economic burden of PCOS among Australian women. This will inform women's expectations about their future reproductive health needs after diagnosis, and identify gaps in current management practices.

Project ID: A741	Patient level factors that can contribute to adverse events in older women - A retrospective study of women in the Australian Longitudinal Study on Women's Health
------------------	---

Lead Investigator:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Other collaborators:

- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
- Dr Tazeen Majeed - School of Medicine and Public Health, University of Newcastle
- Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: We are exploring patient level factors that can contribute to adverse events in the aging population during episodes of hospitalization. We would like to look at the old and mid-age cohort of women as older people and women are both higher user of hospitals. By looking at the survey details of patients who have had adverse events, we would like to assess the effects of aging like frailty and comorbidities, cognitive deficits including dementia and related conditions, and social living circumstances including availability of social support on the adverse events.

Project ID: A742	Examining the use of chronic disease management plans and allied health services in women who self-report PCOS
Lead Investigator:	<ul style="list-style-type: none"> • Dr Renae Fernandez - University of Adelaide
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • Dr Jacqueline Boyle - Monash Centre for Health Research and Implementation, Monash University • A/Prof Alice Rumbold - South Australian Health and Medical Research Institute Women and Kids • Prof Vivienne Moore - School of Public Health, The University of Adelaide • Prof Michael Davies - Robinson Research Institute, The University of Adelaide • Anthea Hutchison - Robinson Research Institute, The University of Adelaide
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>This project will use data from medical insurance claims to quantify the extent of use of medical and allied health services for lifestyle and mental health complications among women who self-report PCOS. This will provide a much more complete picture of the current health and economic burden of PCOS among Australian women. If the use of chronic disease management plans and government subsidised allied health services is found to be low among women with PCOS, this would provide robust evidence to support more targeted awareness campaigns for health care providers regarding the need for multidisciplinary care of this condition.</p>

Project ID: A744	The relationships between menstrual problems and endometriosis over time
Lead Investigator:	<ul style="list-style-type: none"> • Dr Ingrid Rowlands - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland

Other collaborators: • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person: • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Menstrual problems, such as severe period pain (dysmenorrhea), premenstrual syndrome (PMS), irregular periods and heavy menstrual bleeding, affect more than 20% women of reproductive age. They are clinical manifestations of some gynaecological conditions. Endometriosis is one of these conditions that affects 2-17% childbearing women with severe period pain. Few studies have explored the associations between menstrual problems and endometriosis in life course. This project aims to fill this gap by investigating the relationships between menstrual problems and endometriosis over time.

Conference / Presentations: *The effect of premenstrual syndrome on postpartum depression: a systematic review and meta-analysis.*
Cao S. 2018 Clinical and Public Health Postgraduate Symposium, Herston, Qld 22 - 23 November 2018.

Project ID: A751A	The association of lifestyle factors with inflammatory conditions in women with and without polycystic ovary syndrome
-------------------	--

Lead Investigator: • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University

Other collaborators:

- A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria
- Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University
- Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University
- Prof James Hebert - Cancer Prevention and Control Program, University of South Carolina
- Dr Nitin Shivappa - University of South Carolina
- Dr Jessica Grieger - The University of Adelaide
- Dr Cate Bailey - Monash Centre for Health, Research and Implementation, Monash University
- Dr Aya Mousa - Monash University

- Amreen Naqash - University of Kashmir
- Margaret McGowan - Monash Centre for Health Research and Implementation, Monash University

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Polycystic ovary syndrome is a condition affecting up to 1 in 5 reproductive-aged women associated with reproductive, metabolic and psychological complications. Inflammation is proposed as one of the aetiological factors associated with PCOS and conditions associated with increased inflammation such as asthma and depression are more prevalent in women with PCOS. Different foods are understood to modify inflammation so that better quality diets or diets higher in fruit and vegetables tend to be anti-inflammatory. However, the contribution of dietary quality to conditions associated with inflammation in PCOS is not known. The proposed study will investigate whether dietary quality is associated with type 2 diabetes, depression and asthma in women with and without PCOS.

Publications:

The association between dietary intake, asthma, and PCOS in women from the Australian Longitudinal Study on Women's Health. Grieger JA, Hodge A, Mishra G, Joham AE & Moran LJ. *Journal of Clinical Medicine*, 2020, 9(1); E233.

Project ID: A754

Signs and symptoms as predictors of COPD in women

Lead Investigator:

- Dr Roger Engel - Macquarie University

Other collaborators:

- Dr Katie de Luca - School of Health, Medical and Applied Sciences, Central Queensland University
- Dr Petra Graham - Macquarie University
- A/Prof Subramanyam Vemulpad - Maquarie University
- Dr Masoumeh Kaboli Farshchi - Maquarie University

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Chronic obstructive pulmonary disease (COPD) is characterised by progressive loss of lung function. The main symptoms are breathlessness, cough, sputum production, chest tightness and falling exercise capacity. Many sufferers are unaware of their condition and attribute the symptoms to ageing or a lack of fitness. Identifying the

signs and symptoms that herald the beginning of the disease is essential to improving prognosis. The Australian Longitudinal Study on Women's Health (ALSWH) provides an ideal opportunity to study the development of these early signs and symptoms in women who have been diagnosed with COPD.

Publications: Breathing difficulty, chest and back pain predict bronchitis and emphysema in women. Engel RM, de Luca K, Graham P, Kaboli Farshchi M, Vemulpad S & Byles J. *Respirology*, 2019, 24(S1); 72.

Predictors of chronic obstructive pulmonary disease in women who have never smoked: A cohort study. Engel RM, de Luca K, Graham PL, Farshchi MK, Vemulpad S & Byles J.. *ERJ Open Research*, 2022, 8(2): 00532-2021.

Conference / Presentations: *Breathing difficulty, chest and back pain predict bronchitis and emphysema in women.*
Engel RM, de Luca K, Graham P, Kaboli Farshchi M, Vemulpad S & Byles J. 2019 Thoracic Society of Australia and New Zealand Scientific Research Society Annual Scientific Meeting, Gold Coast, QLD, 29 March - 2 April 2019.

Breathing difficulty, chest and back pain predict bronchitis and emphysema in women: A potential role for chiropractors in chronic respiratory disease management?
Engel R, De Luca K, Graham P, Kaboli Farshchi M, Vemulpad S & Byles J. Chiropractic Australia National Conference, Gold Coast, QLD 23 - 25 August 2019.

A potential role for chiropractors in the early detection and management of women at risk of developing chronic respiratory disease later in life.
Engel R, De Luca K, Graham P, Kaboli Farshchi M, Vemulpad S, Byles J. Australian Chiropractors Association Conference, Melbourne, VIC, 18 - 20 October 2019.

Project ID: A755	Generational differences in mental, sexual, reproductive, maternal and child health among Australian sexual minority women (lesbian, bisexual, mostly heterosexual)
------------------	--

Lead Investigator: • A/Prof Leah East - University of New England

Other collaborators: • A/Prof Ruth McNair - Dept of General Practice, University of Melbourne

- Prof Jayne Lucke - School of Public Health, The University of Queensland
- Prof Tonda Hughes - School of Nursing, Columbia University
- A/Prof Bethany Everett - Department of Sociology, University of Utah
- Dr Cindy Woods - University of New England
- Prof Marie Hutchinson - School of Health and Human Sciences, Southern Cross University
- Dr Helena Menih - University of New England
- Dr Suzie Cosh - University of New England
- Prof Debra Jackson - University of Technology Sydney
- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Liaison person:

Synopsis:

This project aims to examine generational differences in mental, sexual, reproductive, maternal and child health between heterosexual and sexual minority women (lesbian, bisexual, mostly heterosexual; SMW). Previous analysis indicates that SMW are more likely than heterosexual women to have poorer mental health, higher substance use, lower satisfaction with healthcare and are at an increased risk of experiencing STIs and unintended pregnancy. Sexual minority status is also associated with preconception risk behaviours that can have a negative impact on maternal, infant and child outcomes. This project will examine if these risk behaviours and health disparities continue to exist and impact on maternal and child health outcomes through comparing differences among three cohorts of women.

Project ID: A757A	The health system costs of women who experience domestic violence
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jananie William - Australian National University
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dr Bronwyn Loong - Australian National University • Dr Dana Hanna - Research School of Economics, Australian National University • Dr Rebecca Reeve - University of New South Wales • Dr Bonny Parkinson - Centre for the Health Economy, Macquarie University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Our project investigates the health services used by women who experience domestic violence and the corresponding health system costs of these services. The health system costs refer to government-funded expenditure through Medicare and relate to both in-patient hospital and out-of-hospital care (such as general practitioner visits). We will also consider costs through the Pharmaceutical Benefits Scheme. The results will be used to inform health policy and domestic violence services to ultimately better support affected women.</p>
Project ID: A760	The effects of vigorous intensity exercise during pregnancy and postpartum on maternal and infant outcomes
Lead Investigator:	<ul style="list-style-type: none"> • Dr Kassia Beetham – School of Exercise Science, Australian Catholic University
Other collaborators:	<ul style="list-style-type: none"> • Dr Gregore Mielke - School of Public Health, The University of Queensland. • Dr Jemima Spathis - School of Exercise Science, Australian Catholic University • Dr Samantha Hoffmann - Centre for Sport Research, School of Exercise and Nutrition Sciences, Deakin University • Prof Vicki Clifton - Mothers and Babies Theme, Mater Medical Research Institute, The University of Queensland

Liaison person:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Synopsis:	<p>The role of exercise and patterns of exercise, (particularly vigorous intensity exercise), during pregnancy and postpartum are not well understood. Previous research has indicated the importance of exercise in this population, yet there is little research investigating the relationship between exercise patterns, and maternal and infant outcomes. The aim of this study is to evaluate the rates and intensity of physical activity during pregnancy, and the implications on health and birth outcomes.</p>
Conference / Presentations:	<p><i>Longitudinal association between physical activity in pregnancy with maternal and infant outcomes: Findings from the Australian Longitudinal Study on Women's Health.</i></p> <p>Beetham K, Spathis J, Hoffmann S, Brown W, Clifton V & Mielke G. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.</p>

Project ID: A775	Mental and physical health trajectories among women in midlife
------------------	---

Lead Investigator:	<ul style="list-style-type: none"> • Dr Karin Hammarberg - Monash University
Other collaborators:	<ul style="list-style-type: none"> • Prof Jane Fisher - School of Public Health and Preventive Medicine, Monash University • Prof Flavia Cicuttini - Department of Epidemiology and Preventative Medicine, Monash University • Prof Martha Hickey - The University of Melbourne • Dr Thach Tran - School of Public Health and Preventive Medicine, Monash University • Hau Nguyen - Monash University
Liaison person:	<ul style="list-style-type: none"> • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
Synopsis:	<p>Australia's population is ageing and women over 50 will soon be the largest demographic group. Maintaining and promoting the health of women as they age is vital to the Australian economy and for the maintenance of family and community structures. To inform health policy and health promotion strategies, the aim is to describe the social, situational, financial, physical, and psychological factors that predict physical and mental health and wellbeing in women over age 50 using ALSWH data collected over 20 years from women born</p>

between 1946 and 1951 who were aged between 45 and 50 years when they completed the first survey.

Project ID: A778	Parity and mode of birth and their relationship to general and gynaecological health
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Davis - University of Canberra
Other collaborators:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland • Prof Ellen Aagaard Nohr - University of Southern Denmark • A/Prof Chunsen Wu - University of Southern Denmark
Liaison person:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Synopsis:	<p>As 32.3% of all deliveries in Australia are caesarean sections, it is important to address the long-term consequences of this procedure. This project will compare self-perceived general health, emotional wellbeing and different gynaecological complications such as irregular periods, severe period pain, heavy periods, urinary incontinence, and surgery for hysterectomy, prolapse of vagina, bladder and bowel in groups of Australian women that have delivered vaginally, by caesarean section or not at all.</p>

Project ID: A780	Endometriosis: Prevalence, health outcomes and health service use
Lead Investigator:	<ul style="list-style-type: none"> • Dr Ingrid Rowlands - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Grant Montgomery - Institute for Molecular Biosciences, The University of Queensland • Dr Darsy Darssan - School of Public Health, The University of Queensland • Prof Jason Abbott - University of New South Wales • Prof Peter Rogers - The University of Melbourne

- A/Prof Tracy Comans - School of Public Health, The University of Queensland
 - Dr Dereje Gedle Gete - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland
 - Dr Sally Mortlock - Institute for Molecular Biosciences, The University of Queensland
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Based on international data, endometriosis is clinically diagnosed in 10-13% of women. However, there are no current national, Australian estimates. This study estimates the prevalence of endometriosis (self-reported and surgically confirmed) in two cohorts of young women and describes women's long-term health outcomes and health service use. Data from women's self-reported doctor diagnoses of endometriosis from the ALSWH surveys will be combined with surgery data from Medicare Benefits Schedule and the state-based Admitted Patients Data collections to provide national estimates and examine outcomes.

Publications: Prevalence and incidence of endometriosis in Australian women: A data linkage cohort study. Rowlands IJ, Abbott JA, Montgomery GW, Hockey R, Rogers P & Mishra GD. *Journal of Obstetrics and Gynaecology*, 2020, 128(4):657-665.

Longitudinal changes in employment following a diagnosis of endometriosis: Findings from an Australian cohort study. Rowlands I, Hockey R, Abbott J, Montgomery G & Mishra G. *Annals of Epidemiology*, 2022, 69; 1-8.

Body mass index and the diagnosis of endometriosis: Findings from a national data linkage cohort study. Rowlands I, Hockey R, Abbott J, Montgomery G & Mishra G. *Obesity Research and Clinical Practice*, 2022, 16(3):235-241.

Project ID: A782

Stillbirth: Prevalence, menstrual problems, and future health outcomes

Lead Investigator:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

- Other collaborators:
- Prof Vicki Clifton - Mothers and Babies Theme, Mater Medical Research Institute, The University of Queensland
 - Prof Vicki Flenady - Mater Research Institute, The University of Queensland
 - Alexis Dennehy - The University of Queensland
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: In Australia, the rate of stillbirth is 6.7 per 1000 births. This is equivalent to 2,107 stillborn babies each year. Established risk factors include maternal health (hypertension, diabetes), primiparity, pregnancy complications (foetal growth restriction, prolonged pregnancy), smoking, overweight and obesity, and history of stillbirth. It is already known that women who experience pregnancy complications are more likely to report a cardiovascular disease related event, such as angina, heart attack, and arrhythmia, suggesting a link between adverse pregnancy events such as stillbirth and future health. Lykke et al reported that women who experience a pregnancy complication including a stillbirth in their first pregnancy are twice as likely to die prematurely. In a Danish study, women with irregular menstrual cycles had an increased risk of preeclampsia, preterm birth, and prolonged pregnancy. Therefore, the characteristics of the preconception menstrual cycles may be a marker of both pregnancy outcomes and post-pregnancy health. Limited studies are available on the associations between preconception menstrual patterns and stillbirth. Similarly, there is a lack of information on changes in the physical and mental health of women who have had stillbirth, or on their GP use. We hypothesize that menstrual problems might be early indicators of increased risk of stillbirth and poorer health in the future.

Project ID: A787	Intimate partner violence, reproductive outcomes and contraceptive use in the 1973-1978 and 1989-95 cohorts
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle

- Dr Jacqueline Coombe - Melbourne School of Population and Global Health, The University of Melbourne
 - Nick Egan - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Women are disproportionately at greater risk of family, domestic and sexual violence (FDSV), which is typically perpetrated by a current or previous partner, and usually takes place in their home. Women experiencing FDSV are less likely to have a planned pregnancy, or be able to make autonomous decisions about their contraceptive use. Using data from the 1973-78 and 1989-95 cohorts, we aim to examine the patterns of contraceptive use, and reproductive outcomes (including accidental pregnancy, miscarriage, termination and birth) for women who report experiencing intimate partner violence (IPV), versus those women who have not.

Publications: Contraceptive use among women through their later reproductive years: Findings from an Australian prospective cohort study. Harris ML, Egan N, Forder PM, Coombe J & Loxton D. *PLOS ONE*, 2021, 16((8)); e0255913.

Project ID: A789	Examining the long-term impacts of abuse on women's health across the life course
------------------	--

- Lead Investigator:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Other collaborators:
- Peta Forder - Centre for Women's Health Research, The University of Newcastle
 - Natalie Townsend - Centre for Women's Health Research, The University of Newcastle
 - Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
 - Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle
 - Emma Byrnes - Centre for Women's Health Research, The University of Newcastle
 - Nick Egan - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Experiencing violence or abuse can lead to negative health outcomes. There are many forms of violence and abuse that women may experience across their life course, including childhood abuse, intimate partner violence and elder abuse. While some women have never experienced such trauma, others have experienced multiple forms of abuse throughout their lives. This project aims to examine the relationship between different patterns of abuse and health outcomes, and to identify the factors that mitigate or exacerbate the impact of abuse on health.

Project ID: A793A	Urinary incontinence in women with and without polycystic ovary syndrome (PCOS)
-------------------	--

Lead Investigator:

- Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University

Other collaborators:

- Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University
- Dr Jillian (Chau Thien) Tay - Monash University

Liaison person:

- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis: Urinary incontinence affects up to one in two postmenopausal women and one in three premenopausal women. It causes great embarrassment and reduces quality of life. Reproductive hormones play a role in urinary continence but the mechanisms are not understood. Polycystic ovary syndrome (PCOS) is a complex hormonal disorder characterized by reproductive hormones dysregulation and insulin resistance. Women with PCOS are prone to weight gain and diabetes, both of which are important risk factors for urinary incontinence. We intend to study the association of PCOS with urinary incontinence and how urinary incontinence impacts the psychology well-being of women with PCOS.

Project ID: A797A	Common Conditions from Multiple Sources: Production and update of CCMS datasets and Data Dictionary
-------------------	--

Lead Investigator:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland

- Other collaborators:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
 - Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland
 - David Fitzgerald - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Peta Forder - Centre for Women's Health Research, The University of Newcastle
 - Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
 - Colleen Loos - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Michael Waller - School of Public Health, The University of Queensland
 - Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
 - Nick Egan - Centre for Women's Health Research, The University of Newcastle
 - Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Paul McElwee - Australian Women and Girls' Health Research Centre, The University of Queensland
 - A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Major Report O (2020) examined the prevalence and incidence of common chronic conditions among ALSWH cohorts. The methodology for the ascertainment of the conditions which was developed for that report used all available data sources (ALSWH surveys and administrative data, and external linked data). This methodological work forms the basis for the ongoing production of the CCMS (Common Conditions from Multiple Sources) datasets.

Publications:	Accuracy of death certifications of diabetes, dementia, and cancer in Australia: A population-based cohort study. Xu Z, Hockey R, McElwee P, Waller M & Dobson A. <i>BMC Public Health</i> , 2022, 22(1); 902.
Conference / Presentations:	<i>Accuracy of death certifications of diabetes, dementia, and cancer in Australia.</i> Xu Z, McElwee P, Hockey R & Dobson A. 5th Meeting of the MultiCause Network, 19-20 May 2022.

Project ID: A798	HPV vaccinations and adherence to screening
Lead Investigator:	<ul style="list-style-type: none"> • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle • Penny Reeves - Hunter Medical Research Institute, The University of Newcastle • A/Prof Julila Brotherton - VCS Population Health • Prof David Durrheim - The University of Newcastle • Teagan Lindsay - University of Newcastle • Francesca Orchard-Hall - The University of Newcastle • Joseph Welsh - The University of Newcastle • Callum Sinclair - The University of Newcastle • Karina Ly - The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	Free HPV vaccinations were introduced for Australian females aged 12-26 years in 2007 with free school-based vaccination of 12-13 year-old girls ongoing and vaccination of boys introduced in 2013. This government initiative has dramatically decreased the prevalence of HPV in younger men and women. However, screening remains important to prevent cervical cancer effectively amongst both vaccinated and unvaccinated women. We aim to determine factors that are associated with women not participating in cervical screening and assess the relationship between HPV vaccination and screening behaviour.

We have performed preliminary analysis examining factors of HPV uptake.

Project ID: A800A	Women's health services use across life
Lead Investigator:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Louise Wilson - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Evidence that is more detailed is needed regarding the pattern of women's health service use across life, and how these patterns may vary by sociodemographic and behavioural factors and reproductive events. This research will conduct a comprehensive assessment of Australian women's use of health services across life stages and identify key factors influencing distinct patterns of health service use.
Publications:	<p>Did changes to recommended testing criteria affect the rate of vitamin D testing among Australian women. Wilson LF, Xu Z, Mishra GD, Dobson AJ & Doust J. <i>Archives of Osteoporosis</i>, 2020, 15((1)); 162.</p> <p>Socioeconomic, behavioural and health factors associated with chlamydia testing in sexually active young women: an Australian observational cohort study. Wilson LF, Dobson AJ, Doust J & Mishra GD. <i>Sexual Health</i>, 2022. doi: 10.1071/SH21230</p> <p>Associations of socioeconomic and health factors with dental non-attendance: A comparison of three cohorts of women. Wilson LF, Xu Z, Doust J, Mishra GD & Dobson AJ. <i>Community Dentistry and Oral Epidemiology</i>, 2022. doi.org/10.1111/cdoe.12776</p>

Conference /
Presentations:

Agreement between self-reported chlamydia infection and chlamydia infection ascertained using testing and medication administrative data.

Wilson L. World Congress of Epidemiology, 2021. Virtual, 3-6 September 2021.

Modifiable factors and dentist visits: a comparison of three cohorts of women.

Wilson L, Xu Z, Mishra G, Doust J & Dobson A. Preventive Health Conference 2021, Hybrid Conference, Perth, WA, 10-12 May 2021.

The impact of changing MBS criteria for vitamin D testing.

Wilson L, Xu Z, Mishra G, Dobson A & Doust J. Choosing Wisely National Meeting, Wilson L, Xu Z, Mishra G, Dobson A & Doust J. 19 May 2021.

Project ID: A803

Influence of shift work on menopausal vasomotor symptoms, an analysis of the Australian Longitudinal Study on Women's Health

Lead Investigator:

- Dr Qunyan Xu - University of South Australia

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Adrian Esterman - University of South Australia
- A/Prof Jane Warland - University of South Australia
- Dr Dotoetha Dumuid - Alliance for Research in Exercise, Nutrition and Activity (ARENA), University of South Australia.

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

With the ageing workforce, many women are and will find themselves managing menopause transition during their employment. As a frequent complaint of menopausal transition, vasomotor symptoms including hot flushes and night sweats pose challenges to various aspects of women's life such as sleep disturbance and social inconvenience. Shift work is a well-recognised occupational risk with wide implications on individuals' health. Although much attention has been paid to understanding its impact on reproductive health outcomes including spontaneous pregnancy loss and menstrual disturbance, little is known about whether and how much shift work affects menopausal vasomotor symptoms in middle aged women.

Project ID: A811	Reproductive factors and non-communicable diseases (NCDs) in women
Lead Investigator:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Jane Fisher - School of Public Health and Preventive Medicine, Monash University • Prof Rachel Huxley - Deakin University • Dr Louise Wilson - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Flavia Cicuttini - Department of Epidemiology and Preventative Medicine, Monash University • Prof Martha Hickey - The University of Melbourne • Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Mridula Bandyopadhyay - University of Melbourne • Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Current knowledge on links between risk factors and reproductive characteristics and increased risk of non-communicable diseases in women is impeded by the varying quality of existing data and gaps in evidence. This research will investigate associations of established and emerging risk factors at each stage of women's lives (early life, young adult, main reproductive stage, menopausal transition, and later life) with the incidence of non-communicable diseases (NCDs).</p>

We conducted three studies. (1) The first study assessed the accuracy of death certifications of diabetes, dementia and cancer in Australian women. We found that, among women who had a record of diabetes,

dementia, or cancer in their lifetime, only 12.3%, 25.2% and 57.7% had diabetes, dementia and cancer recorded as the underlying cause of death, respectively. This work has been published in [BMC Public Health](#). (2) The second study examined the associations of menopause, hysterectomy, and menopausal hormone therapy (MHT) with cause-specific mortality. We found that MHT use following early natural menopause.

- Publications: Accuracy of death certifications of diabetes, dementia and cancer in Australia: A population-based cohort study. Zu X, Hockey R, McElwee P, Waller M & Dobson A. (2022). *BMC Public Health*; 22(1): 902.
- Conference / Presentations: *Impacts of asthma severity, exacerbations and medication use on perinatal outcomes: An updated systematic review and meta-analysis (poster presentation)*.
Xu Z, Doust JA, Wilson WF, Dobson AJ, Dharmage S & Mishra GD. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

Project ID: A812	Women's health services use before and after diagnosis of a non-communicable disease (NCD)
------------------	---

- Lead Investigator:
 - Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Other collaborators:
 - Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Louise Wilson - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Danusha Jayawardana - Centre for Health Economics, Monash University
- Liaison person:
 - Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Evidence that is more detailed is needed regarding the pattern of women's health service use across life, in particular the impact of a diagnosis of one or more non-communicable diseases (NCDs). This

research will examine patterns of health service use before and after diagnosis of a NCD at different life stages, including the impact of subsequent additional NCDs and multi-morbidity.

Project ID: A817	Osteoporosis in Australian women: Exploring differences related to age at menopause and location
Lead Investigator:	<ul style="list-style-type: none"> A/Prof Amanda Vincent - Monash University
Other collaborators:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University Dr Alicia Jones - School of Public Health and Preventative Medicine, Monash University Prof Peter Ebeling - School of Clinical Sciences, Monash University Dr Joanne Enticott - Monash Centre for Health Research and Implementation, Monash University
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Osteoporosis is a significant health concern, leading to fractures, loss of mobility and independence. Over 60% of women over the age of 50 have reduced bone density. Younger women with early menopause, breast cancer or other risk factors may also have reduced bone density. Evidence shows higher rates of hip fractures in rural areas of Australia, and lower osteoporosis knowledge among women with early menopause in rural areas. This study aims to assess differences between investigation and treatment of osteoporosis in (i) early menopause compared to women with expected-age menopause and (ii) rural compared to metropolitan areas of Australia.</p> <p>PhD student Dr Alicia Jones has been on maternity leave from 1/7/2021 - 31/6/2022 and so the project has been on hold for this time.</p>
Project ID: A831	The effects of substance use in Australian women (born 1989-1995; and 1973-1978) on health, wellbeing and mental health

- Lead Investigator:
- Dr Kylie Bailey - Psychology Department, University of Newcastle
- Student:
- Natalie Sinclair - Macquarie Drug and Alcohol Service, Mid North Coast Area Health
- Other collaborators:
- Dr Elizabeth Stojanovski - School of Mathematical & Physical Sciences, University of Newcastle
 - Dr Tazeen Majeed - School of Medicine and Public Health, University of Newcastle
 - Dr Julia Dray - The University of Newcastle
 - Dr Eliza Skelton - The University of Newcastle
 - Dr Beth Mah - Wandiyali
- Liaison person:
- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: Understanding the prevalence of substance use in women as well as changes in use across the generations, will assist health workers and policy makers to provide substance use treatments that are more appropriate for women. This project has three studies that explore self-reported substance use in Australian women in the 1973-1978 and 1989-1995 cohorts. The first study is a longitudinal study and will investigate substance use. The second study will compare substance use between the 73-78 and the 89-95 cohorts. The third study will explore the impacts of substance use on women's health, wellbeing and mental health.

Project ID: A832	The projected impact of pre-existing mental illness on perinatal mental health, pregnancy and birth among young Australian women (born 1989-95)
------------------	--

- Lead Investigator:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Other collaborators:
- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
 - Prof Marie-Paule Austin - Perinatal and Women's Mental Health, University of New South Wales
 - Dr Nicole Reilly - University of Wollongong
 - Peta Forder - Centre for Women's Health Research, The University of Newcastle

- Natalie Townsend - Centre for Women's Health Research, The University of Newcastle
- Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland
- Nick Egan - Centre for Women's Health Research, The University of Newcastle

Liaison person: • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Previous mental health is a strong predictor of perinatal mental health, such that women with poor mental health before they are pregnant are much more likely to experience mental health issues during and after pregnancy. Analysis of ALSWH data has previously shown the robust link between past mental health and antenatal and postnatal mental health problems among women born 1973-78. A very high proportion of the ALSWH cohort born 1989-95 have reported psychological distress and diagnosed mental health disorders, much higher than the number of women reporting these issues in the cohort born 1973-78. As the 1989-95 cohort enter the childbearing years, it is important to understand the scope of mental health issues that might be experienced by women in this age group, given the high proportion who have a history of mental health problems.

Project ID: A833	Use of external administrative data that may be linked with ALSWH survey data to develop and illustrate methodological issues
------------------	--

Lead Investigator: • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Other collaborators:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland
- David Fitzgerald - Australian Women and Girls' Health Research Centre, The University of Queensland
- Peta Forder - Centre for Women's Health Research, The University of Newcastle

- Colleen Loos - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Michael Waller - School of Public Health, The University of Queensland
 - Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
 - Dr Darsy Darssan - School of Public Health, The University of Queensland
 - Nick Egan - Centre for Women's Health Research, The University of Newcastle
 - Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
 - Paul McElwee - Australian Women and Girls' Health Research Centre, The University of Queensland
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: This project will facilitate research planning, in particular the judicious use of linked data, by enabling key ALSWH researchers at The Universities of Queensland and Newcastle, who have extensive experience with linked data, to conduct exploratory analyses and preparatory work for government deliverables. The results of these analyses will only be used to inform research planning.

Project ID: A835	Are calcium channel blockers associated with breast cancer? Assessing the impact of long-term use in large longitudinal cohorts
Lead Investigator:	<ul style="list-style-type: none"> • Prof Rachael Moorin - Curtin Health Innovation Research Institute, Curtin University
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Prof Sallie-Anne Pearson - University of New South Wales • Prof Chris Reid - Curtin University • Prof Christobel Saunders - The University of Western Australia

- Prof Walter Abhayaratna - Canberra Health Services
- Prof David Preen - University of Western Australia
- Prof Bruno Stricker - Erasmus University,
- Prof Jeff Hughes - Curtin University
- Prof Max Bulsara - University of Notre Dame
- Cameron Wright - Curtin University
- Dr Thi Ninh Ha - Health Economics & Data Analytics, Curtin School of Population Health, Curtin University
- Dr Chau Ho - Curtin University
- David Youens - Curtin University
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Breast cancer is the commonest cancer in women. Calcium channel blockers (CCBs) are frequently used worldwide to treat high blood pressure. A link between use of CCBs and breast cancer has been proposed with mixed findings in North American, European and Asian women. No data exist for Australian women. Since 1 in 8 Australian women will be diagnosed with breast cancer by age 85 years, it is important to determine whether this risk is increased by the use of CCBs.

Project ID: A839

Preconception Period Analysis of Risks and Exposures influencing health and Development (PrePARED) consortium: PrePARED-Australia consortium

Lead Investigator:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Other collaborators:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Hsin-Fang Chung - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland
- Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
- A/Prof. Emily W Harville - Tulane School of Public Health and Tropical Medicine

	<ul style="list-style-type: none"> • Ke Pan - Tulane School of Public Health and Tropical Medicine • A/Prof Shelley Wilkinson - Mater Medical Research
Liaison person:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>The conventional focus of intervening during pregnancy to reduce the risk of adverse health outcomes is 'too little too late'. More than half of Australian women enter pregnancy overweight or obese. Maternal obesity is associated with increased risk of pregnancy complications (e.g., preeclampsia and gestational diabetes) and adverse birth outcomes (e.g., stillbirth and low birthweight, macrosomia). Antenatal intervention studies on the effect of diet and exercise among obese and overweight women show only modest reductions in gestational weight gain, and no significant reduction in the risk of adverse outcomes. The 2018 Lancet series on preconception health highlighted the critical need to refocus the timing of changes in exposure levels before conception to comprehensively understand the risk of adverse outcomes. PrePARED Australia aims to assemble and analyse data from existing cohort studies and establish the evidence base on the timing of preconception exposures associated with adverse pregnancy, birth, child outcomes and post-pregnancy maternal health. The knowledge gained will inform more effective preconception healthcare strategies.</p>
Conference / Presentations:	<p><i>Data pooling and harmonization across pre-conception studies: The PrePARED Consortium (Speed Talk).</i> Ke P et al. The Society for Pediatric and Perinatal Epidemiologic Research (SPER), 26 May - 18 June 2021.</p> <p><i>Preconception cannabis use and gestational diabetes mellitus (GDM): The PrePARED consortium.</i> Pan K, Charlton BM, Chavarro JE, Gunderson EP, Hart J, Jukic AM, Ley S, Mishra GD, Mumford SL, Shaffer JG, Wise LA & Harville EW. Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research (SPER), Chicago, USA, 13-14 June 2022.</p> <p><i>Preconception cannabis use, gestational hypertension and pre-eclampsia: The PrePARED consortium.</i> Pan K, Charlton BM, Chavarro JE, Gunderson EP, Hart J, Jukic AM, Ley S, Mishra GD, Mumford SL, Shaffer JG, Wise LA & Harville EW. 2022 Society for Pediatric and Perinatal Epidemiologic Research (SPER), Chicago, USA, 13-14 June 2022.</p>

Project ID: A840	Tracking the short-term impacts of COVID-19 on the health and wellbeing of Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle • Emma Byrnes - Centre for Women's Health Research, The University of Newcastle • Katherine Tuckerman - Centre for Women's Health Research, The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The impact of COVID-19 on the individual and how this will evolve over time is largely unknown, while the long-term impact of COVID-19 and resultant life changes are also uncharted territory. ALSWH responded by offering an ongoing brief COVID-19 survey to women in the three youngest cohorts, deployed fortnightly over a six-month period during 2020, with follow-up surveys planned for 2021. The purpose of the survey was to ascertain who had experienced COVID-19, who had been tested for COVID-19 (or not), their general health and stress levels, and the impact of COVID-19 on women's lives. This project combines the COVID-19 survey data with main survey data to evaluate the impacts of COVID-19 on health and wellbeing (such as</p>

physical health, mental health, health service use, etc), while accounting for factors such as SES, residential area, history of trauma, etc that also influence health and wellbeing.

One further round of COVID Survey data was collected during 202. Results of this survey were presented at the ALSWH symposium in 2022, and the report will be published on the website in the near future.

Conference /
Presentations:

From April to October: Women's health and wellbeing during COVID-19.

Loxton D. Australasian COVID-19 Conference. 8-10 December 2020.

Project ID: A841

Econometric modelling and resources use implications of NCDs for women

Lead Investigator:

- Prof Brenda Gannon - Centre for Business and Economics of Health, The University of Queensland

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Danusha Jayawardana - Centre for Health Economics, Monash University.
- Aarushi Dhingra - The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Given that there is limited evidence on the burden of non-communicable diseases (NCDs) among women in Australia, the aim of this project is two-fold. First, this project will apply econometric models to evaluate the current burden of NCDs, in terms of health care services and resource costs. Second, simulation and forecasting models will be used to quantify the future costs of NCDs, while accounting for the prevalence of risk factors.

Conference /
Presentations:

An economic framework for exploring the impact of non-communicable diseases on healthcare utilisation.

Jayawardana D. International Health Economics Association (iHEA) World Congress, Virtual July 2021.

Excess healthcare costs of depressive symptoms in late adolescence: Evidence from national Medicare claims data.

Jayawardana D. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

Excess healthcare costs of depressive symptoms in late adolescence: Evidence from national Medicare claims data.

Jayawardana D. Econometric Society Australasian Meeting (ESAM). 7-9 July 2021.

Excess healthcare costs of depressive symptoms in late adolescence: Evidence from national Medicare claims data.

Jayawardana D. 42nd Annual Australian Health Economics Society (AHES) Conference, Virtual, 21-22 September 2021.

Project ID: A843	Plant-based dietary patterns and chronic disease risk in Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jessica Ferguson - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Manohar Garg - School of Biomedical Sciences & Pharmacy, University of Newcastle • Dr Christopher Oldmeadow - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, Hunter Medical Research Institute • Dr Lucy Leigh - Hunter Medical Research Institute • Dr Lucy Leigh - Hunter Medical Research Institute • Dr Melinda Hutchesson - The University of Newcastle • Courtney Baleato - School of Health Sciences, University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Plant-based diet (PBD) patterns are gaining societal traction globally, due to ethical and sustainability concern and perceived healthfulness. Recent studies have shown lower risk of chronic diseases in individuals following PBD patterns such as vegetarian or vegan as well as improved management of cardiometabolic risk factors. Since it has been reported that women are more likely to follow PBDs than men, this project will investigate the dietary profile and nutritional adequacy of PBDs followed by Australian women including</p>

associated health concerns, overall health status and chronic disease risk from a representative sample of middle-aged Australian women.

A manuscript titled 'Plant-based dietary patterns versus meat consumption and prevalence of impaired glucose intolerance and diabetes mellitus in Australian women' is currently under review by a peer-reviewed journal.

Publications:	Plant-based dietary patterns are associated with lower body weight, BMI and waist circumference in older Australian women. Ferguson JA, Oldmeadow C, Mishra GD & Garg ML. <i>Public Health Nutrition</i> , 2021.
Conference / Presentations:	<i>Plant-based dietary patterns are associated with lower body weight, BMI and waist circumference in older Australian women.</i> Ferguson JA, Oldmeadow C, Mishra G & Garg ML. UON - Sustainable Food Future Conference 2021, Newcastle, NSW, 17-18 June 2021.

Project ID: A844	Understanding the Australian ‘Weekend Warrior’ physical activity pattern and its health consequences in Australian women
------------------	---

Lead Investigator:	<ul style="list-style-type: none"> • Dr Gregore Mielke - School of Public Health, The University of Queensland.
Other collaborators:	<ul style="list-style-type: none"> • Dr Shelley Keating - School of Human Movement and Nutrition Sciences, The University of Queensland • Ruth Brady - School of Human Movement and Nutrition Sciences, The University of Queensland • Dr Yuta Nemoto - Tokyo Medical University
Liaison person:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis:	The role of physical activity (PA) in the prevention and management of non-communicable diseases is well established. However, it remains unclear whether different patterns of duration, frequency and intensity of activity are critical for the prevention of different conditions. The aim of this project is to understand the ‘weekend warrior’ physical activity pattern and its health consequences in Australian women. This study will improve knowledge and understanding of the optimal patterns of PA for improved health in women. The findings of this study can be used to inform the
-----------	---

development of strategies for increasing PA among women and thereby help to prevent inactivity-related chronic health problems.

Conference /
Presentations:

Associations of physical activity frequency and intensity with incidence of hypertension and obesity over 15 years in Australian women.

Mielke G, Lamerton T, Keating S, Nunes B, Brady R & Brown W. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

Project ID: A845

Predictors of infertility and costs of infertility treatments in Australia

Lead Investigator:

- A/Prof Maarit Laaksonen - School of Mathematics and Statistics, University of New South Wales

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Jayne Lucke - School of Public Health, The University of Queensland
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Dr Serena Yu - University of Technology Sydney
- Prof Kees Van Gool - Centre for Health Economics Research and Evaluation, University of Technology Sydney
- Prof Jake Olivier - School of Mathematics and Statistics, University of New South Wales

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Infertility is estimated to affect one in six Australian couples of reproductive age. It can be successfully treated with lifestyle changes and medical interventions. However, the evidence of the effect of some modifiable lifestyle-related and hormonal factors on infertility is inconclusive. There is also lack of knowledge on the expected full cost of medical treatment of infertility in Australia. We aim to improve fertility outcomes and access to care by producing information on modifiable predictors of infertility and costs of infertility treatment among Australian women to allow for more informed individual choice and policy-making.

The grant applications submitted to support this project have not yet been successful. The lead collaborator A/Prof Maarit Laaksonen is

currently on maternity leave for a year (from 22/4/2022 until 21/4/2023) during which time the project and related grant applications won't progress.

Project ID: A847	Income contingent loans for women who experience intimate partner violence
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jananie William - Australian National University
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Prof Bruce Chapman - Crawford School of Public Policy • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle • A/Prof Timothy Higgins - Australian National University • Yunxi (Lucy) Hu - Actuarial Studies, Australian National University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	Financial stress is known to be a major factor for women staying in violent relationships. This project will investigate an income-contingent loan (ICL) scheme for women who experience intimate partner violence (IPV) to enable them to more safely leave these situations. Data from the ALSWH will be used to analyse the demographics of women who experience violence, which will provide input into the parameters of an ICL scheme so that it will be financially sustainable for all parties involved.

Project ID: A848	A life course approach to determining the prevalence and impact of sexual violence in Australia
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle

- Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
- Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle
- Emma Byrnes - Centre for Women's Health Research, The University of Newcastle
- Nick Egan - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Approximately one in five Australian women have experienced sexual violence, according to the Australian Bureau of Statistics 2016 Personal Safety Survey. The purpose of this research is to take a life course approach to determining the prevalence, and impact of sexual violence among Australian women, by analysing national, longitudinal data. Analyses will include disaggregation by sexual identity, cultural and linguistic diversity, disability, and urban/regional/remote area of residence, where the data permit.

The commissioned report for ANROWS has been delivered and will be released later during 2022.

Project ID: A850

Understanding health care use by Australian women after stroke: Change in health status and service access

Lead Investigator:

- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle

Other collaborators:

- Dr Jennifer White - University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Stroke is a major health care issue in Australia, with over 60,000 new cases of stroke each year. Designated hospital-based stroke units and rehabilitation services have also proven integral to improved stroke survival. Despite this many stroke survivors are discharged directly home from the hospital where they often realize the extent of their disabilities, often not identified during their hospitalization. Furthermore, they are at risk for complications such as falls, physical de-conditioning, aspiration pneumonia, infections, social isolation and depression as well as recurrent stroke⁴. Concern stems from evidence

that many stroke survivors do not access essential rehabilitation services. The purpose of this study is to investigate the prospective experience of stroke in women participating in the Australian Longitudinal Study on Women's Health (ALSWH). Specifically, we will focus on characterising access to health service use.

Project ID: A851	The mental health of young Australian women: A comparison of two national cohorts surveyed 17-21 years apart
------------------	---

- | | |
|----------------------|---|
| Lead Investigator: | <ul style="list-style-type: none"> • Dr Nicole Reilly - University of Wollongong |
| Other collaborators: | <ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Prof Marie-Paule Austin - Perinatal and Women's Mental Health, University of New South Wales • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle |
| Liaison person: | <ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle |

Synopsis: Previous ALSWH research has demonstrated poorer physical health outcomes, and higher levels of stress, for women born 1989-95 compared to women born 1973-78. This project will extend this earlier work by comparing the self-reported mental health of the 1989-95 and 1973-78 ALSWH cohorts, who were surveyed 17-21 years apart, when both groups were aged 18-27 years. We will identify whether sociodemographic factors, health behaviours or other factors explain any mental health differences identified between the cohorts over time. We will also examine which risk and protective factors are the most salient in terms of mental health outcomes for young women, and whether these have also changed over time.

Project ID: A852	Mental health of single mothers in Australia
------------------	---

- | | |
|----------------------|--|
| Lead Investigator: | <ul style="list-style-type: none"> • Dr Tania Dey - BDO EconSearch |
| Other collaborators: | <ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle |

- A/Prof Andreas Cebulla - Australian Industrial Transformation Institute, Flinders University

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis:

The study investigates mental health and stress levels among sole mothers and how this compares to other mothers, as well as examining the mental health of sole mothers over time. First, we will update the research on 'The psychological health of sole mothers in Australia' published by Loxton et al (2006). That study used the 1973-78 and 1946-51 cohorts to examine sole mothers' psychological health. We will update that study using the 1973-78 and 1989-95 cohorts of women of approximate similar ages as in the original study by Loxton et al., examining psychological health amongst sole mothers about one generation later. More specifically, we will examine the association between mental health and stress levels (measures in relation to money, work and children); ability to manage on available income; possession of a health care card; prevalence of illicit drug taking, smoking and alcohol use; parental leave arrangements; childcare use; childcare cost; leave arrangement post birth; time spent in work and leisure activities; and support received by single mothers. Second, this study will exploit the longitudinal nature of the data to study sole parents' experiences over time, that is, their (approximately 20 year) life cycle. Where possible, we hope to map these against policy changes.

Project ID: A856

The association between types of meat consumption and the risk of type 2 diabetes: A federated meta-analysis in the InterConnect project

Lead Investigator:

- Dr Hsin-Fang Chung - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Nita Forouhi - MRC Epidemiology Unit, Cambridge University
- Prof Nick Wareham - MRC Epidemiology Unit, Cambridge University
- Tom Bishop - MRC Epidemiology Unit, Cambridge University

- Chunxiao Li - MRC Epidemiology Unit, Cambridge University
- Dr Fumiaki Imamura - MRC Epidemiology Unit, Cambridge University
- Stephen Sharp - MRC Epidemiology Unit, Cambridge University
- Dr Soumya Banerjee - MRC Epidemiology Unit, Cambridge University
- Dr Matthew Pearce - MRC Epidemiology Unit, Cambridge University

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

The habitual consumption of red and processed meat may elevate the risk of type 2 diabetes (T2D). However, research evidence to-date has been highly heterogeneous, reflecting a variation in dietary habits related to meat consumption and T2D risk. Existing evidence is predominantly from North America and Europe, with little information from Australia, or other areas. Moreover, evidence for poultry intake remains sparse. To better understand the potential link between meat consumption and T2D by geographical regions, the participation of ALSWH study in InterConnect, an international collaboration, will be important. A unique feature of InterConnect project is that a federated meta-analysis approach is employed so all data will stay at source and the analysis will come to the data. We are aiming to recruit 30 studies worldwide in this meta-analysis project.

A total of 50 studies agreed to be included in this meta-analysis project (the initial plan was to recruit 30 studies, so it took longer than expected). So far, 23 studies have completed data harmonisation and preliminary analyses, including the two ALSWH cohorts (1946-51 and 1973-78). The collaborators plan to complete the data harmonisation of the remaining studies by Aug/Sep, finish the main analyses, and draft the manuscript by the end of the year.

Project ID: A859

Socio-demographic and health factors associated with the adherence of Australian Dietary guidelines in women aged 68-73 years

Lead Investigator:

- Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland

- Other collaborators:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Gilly Hendrie - CSIRO Nutrition and Health Program
 - Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Previous research conducted among Australian women indicates that the level of adherence to the Australian Dietary Guidelines (ADG) is low (Mishra, Schoenaker et al. 2015). For example, among women aged 50-55 years, the adherence to dietary recommendations was 48% for fruit, but for vegetables was just 1.8%. This research aims to:

- 1) determine the prevalence of Australian women aged 68-73 who met ADG 2013 by socio-demographic, body weight, health behaviors
- 2) examine the associations between, general health, the presence of chronic conditions (self-report doctor diagnosed diabetes, depression), and the adherence to ADG2013.

Project ID: A1211	Costs of domestic and family violence: An international comparisons study
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Gene Feder - University of Bristol • Prof Steve Morris - University of Cambridge • Dr Kevin Herbert - Department of Public Health and Primary Care, University of Cambridge • Dr Jananie William - Australian National University • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: Abuse and violence across a lifetime impacts health, which influences the need for individual and societal resources. However, it is not well established if the impact of lifetime violence and abuse are comparable between countries with similar resources. This analysis will investigate commonalities and differences between Australian and UK cohorts with respect to the impact of exposure to abuse and violence on life outcomes, using ALSWH and the Avon Longitudinal Study of Parents and Children (ALSPAC). This project will also investigate the feasibility of extrapolating the outcomes from the ALSPAC cohort in terms of lifetime costs using ALSWH data.

Preliminary data synthesis activities have been undertaken with ALSWH data. However, there have been some delays in accessing the international dataset. It is hoped these issues will soon be resolved.

Project ID: A1215	A life-course approach to infertility and mental health
Lead Investigator:	<ul style="list-style-type: none"> • Dr Tazeen Majeed - School of Medicine and Public Health, University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Dinberu Shebeshi - The University of Newcastle • Prof Elizabeth Sullivan - The University of Newcastle • Dr Tanmay Bagade - The University of Newcastle • Dr Erica Breuer - The University of Newcastle • Dr Kailash Thapaliya - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: Infertility is a major problem affecting millions of people globally. It is estimated that in Australia, 1 in 6 couples are unable to conceive. This can cause a number of short term and long-term health problems, with mental health issues having the potential to impact women over their life course. Using the Australian Longitudinal Study on Women's Health (ALSWH), this study will establish how infertility and related socioeconomic and other associated factors can impact the mental health of women, which may have the potential to affect the women over their life course.

Project ID: A1216	Changes in use of Medicare Benefits Schedule (MBS) subsidised services during the COVID-19 pandemic
--------------------------	--

- Lead Investigator: • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Other collaborators: • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
- Peta Forder - Centre for Women's Health Research, The University of Newcastle
- Dr Jennifer White - University of Newcastle
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Liaison person: • Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: The COVID-19 pandemic led to the introduction of several new Telehealth items to the MBS to facilitate safe contact between health practitioners and patients. These items do not cover all services, as many services require face to face contact. This project will compare use of GP, Specialist, Allied Health, Midwife, Mental Health and Telehealth services through the MBS before and during the COVID-19 pandemic to examine the change in service use during the pandemic.

Project ID: A1223A	Dietary patterns and infertility problems
Lead Investigator:	• Dr Jessica Grieger - The University of Adelaide
Other collaborators:	• A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria
	• A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University
	• Dr Nahal Habibi - University of Adelaide
	• Kelly Hall - Adelaide Health Technology Assessment (AHTA), The University of Adelaide
	• Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
	• Dr Shalem Leemaqz - Flinders University
	• Dr Gabriela Mena Ribadeneira - The University of Queensland
Liaison person:	• Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Infertility affects around 1 in 6 couples, and is associated with significant emotional, social and health burden. There are a number of studies demonstrating certain foods or nutrients may associate with infertility, but there is still no conclusive guidance on the best types of foods to support fertility. Moreover, assessment of dietary patterns, as a holistic approach, has been rarely assessed in relation to fertility and increasing age.

Increasing age is a strong risk factor for infertility problems, but so is high BMI, and poor diet. In both younger and older women, the percent contribution of these risk factors to infertility problems has not been assessed. Furthermore, it is not known whether the contribution of BMI, diet, or lifestyle variables to infertility problems changes over the course of a women's life, independent of the adverse effects of increasing age.

This study investigates dietary patterns and the association with reproductive health parameters. It also assesses the independent and joint contribution of diet and lifestyle variables, and risk for infertility problems, and determines whether the contribution of diet and lifestyle variables to fertility problems change over time.

We are about to submit the first paper to Human Reproduction (by end of August 2022); and on track to submit 2nd publication to an obstetrics & gynaecology journal by the end of 2022.

Project ID: A1227	Cardiovascular risk and metabolic health screening in women with polycystic ovary syndrome
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jillian (Chau Thien) Tay - Monash University
Other collaborators:	<ul style="list-style-type: none"> • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University • Dr Mahnaz Bahri Khomami - Monash Centre for Health Research and Implementation, Monash University • Venise Y Hon - Monash University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Polycystic ovary syndrome (PCOS) is a complex hormonal disorder common affecting one in five women and one in four Australian Indigenous women. PCOS is known to be associated with risk factors for heart disease such as diabetes, high blood pressure and high cholesterol levels. In this project, we will compare the prevalence of risk factors for heart disease and the prevalence of screening for diabetes, blood pressure and cholesterol in women with and without PCOS.

Project ID: A1229	Use of assisted reproductive technology (ART) by women with endometriosis
-------------------	--

- | | |
|----------------------|--|
| Lead Investigator: | <ul style="list-style-type: none"> • Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland |
| Other collaborators: | <ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Ingrid Rowlands - Australian Women and Girls' Health Research Centre, The University of Queensland |
| Liaison person: | <ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland |

Synopsis: Assisted reproductive technology (ART) includes intrauterine insemination (IUI) and in vitro fertilisation (IVF). It is the primary treatment option for women with endometriosis who experience infertility. However, information on differences in the use of ART by women with and without endometriosis is scarce. This research will address this gap.

This research has found that ART process (number of cycles, use of IUI and IVF) and outcomes (birth after starting ART) are equivalent between women with and without endometriosis, but only if the diagnosis occurred before the start of fertility treatment. Women whose endometriosis was diagnosed after they started their treatment were worse off on every variable.

Publications: Delayed diagnosis of endometriosis disadvantages women in ART: A retrospective population linked data study. Moss KM, Doust J, Homer H, Rowlands IJ, Hockey R & Mishra GD. *Human Reproduction*, 2021, 36(12); 3074-3082.

Conference /
Presentations:

What is the best fertility treatment for women with Endometriosis - IUI or IVF?

Moss K. Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Annual Scientific Meeting 2022, Gold Coast, QLD, 10-12 October 2022.

Project ID: A1240

Contraception use by Australian women

Lead Investigator:

- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Other collaborators:

- Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

There are limited Australian data on the use of contraception by women, their choice of contraceptive methods, patterns of use of contraceptive methods over various reproductive life stages, and following reproductive events such as having a child or miscarriage. There is a lack of information on the socioeconomic, demographic and health characteristics of women in Australia who use different contraceptive methods. Reliable and up-to-date data on how the choice and use of contraception varies over the course of reproductive life, as well as the socio-economic determinants, are important to help inform government policies and strategies.

Project ID: A1241

Diet and sleep problems in a sample of Australian older women

Lead Investigator:

- Dr Saman Khalesi - Central Queensland University

Other collaborators:

- Prof Corneel Vandelanotte - Appleton Institute and School of Health, Medical and Applied Sciences, Central Queensland University
- Dr Grace Vincent - Appleton Institute and School of Health, Medical and Applied Sciences, Central Queensland University
- Dr Charlotte Gupta - Appleton Institute and School of Health, Medical and Applied Sciences, Central Queensland University
- Dr Christopher Irwin - Menzies Health Institute Queensland, School of Health Sciences and Social Work, Griffith University

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Almost half of Australian adults do not get adequate sleep, with the frequency of sleep-related problems increasing with age. Poor sleep can influence functioning and may increase the long-term risk of developing chronic disease. Diet may influence sleep; e.g. carbohydrate and tryptophan-rich foods (e.g. milk) can improve sleep, while high-fat foods, alcohol and caffeine may disrupt sleep. However, dietary habits and sleep can be influenced by age-related physiological and psychosocial changes, stress and physical inactivity. This study will explore the link between dietary intakes of older Australian women and sleep with consideration for other confounding factors.

Project ID: A1244	The uptake of MBS and PBS funded precision medicine in Australia
-------------------	---

Lead Investigator:

- Dr Marcin Sowa – The University of Queensland

Other collaborators:

- Dr Lisette Pregeli – The University of Queensland
- Prof Stephen Birch – Centre for Business and Economics of Health, The University of Queensland
- Daniel Walton – The University of Queensland

Liaison person:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Our study aims to explore the timelines and patterns of uptake of precision medicine after it becomes publicly funded on Medicare. There are reasons to believe that utilisation of genetic services and precision treatments might initially be concentrated in groups of the Australian population. We are particularly interested in exploring how long such differences persist, and whether a balanced uptake of precision medicine following its adoption by Medicare is becoming faster over time. The outcomes of this study will have implications for the assessment of Medicare achieving the goals of a timely and equitable access of current health care

Project ID: A1246	Physical activity trajectories and associations with health-related quality of life and mortality outcomes
-------------------	---

Lead Investigator:

- Dr Binh Nguyen - The University of Sydney

- Other collaborators:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
 - Dr Gregore Mielke - School of Public Health, The University of Queensland.
 - A/Prof Ding (Melody) Ding - The University of Sydney
 - Dr Joseph Van Buskirk - School of Public Health, The University of Sydney
 - Dr Philip Clare - Prevention Research Collaboration, The University of Sydney
- Liaison person:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis: Most studies have estimated physical activity (PA) using a single time point. Few studies have examined the associations between PA trajectories across the lifespan, which may better reflect true PA patterns, and long-term health outcomes. The aim of this project is to examine the associations between PA trajectories and health-related quality of life and mortality outcomes in Australian women. This study's findings will improve knowledge and understanding of PA longitudinal patterns for improved health in women, and can help inform the development of strategies for increasing PA among women and improving long-term health outcomes.

Project ID: A1252	Evaluating the impact of the 2018 PCOS guideline
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jillian (Chau Thien) Tay - Monash University
Other collaborators:	<ul style="list-style-type: none"> • Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • Dr Joanne Enticott - Monash Centre for Health Research and Implementation, Monash University • Dr Mahnaz Bahri Khomami - Monash Centre for Health Research and Implementation, Monash University • Dr Rhonda Garad - Monash Centre for Health Research and Implementation, Monash University • Shrinkhala Dawadi - Monash Centre for Health Research and Implementation

Liaison person: • Prof Deborah Loxton - Centre for Women's Health Research,
The University of Newcastle

Synopsis: Polycystic ovary syndrome (PCOS) is a complex hormonal disorder affecting one in five women and one in four Australian Indigenous women. It is associated with many long-term health complications including infertility, diabetes, hypertension, high cholesterol and poor mental health. The 2018 international evidence-based PCOS guideline recommends regular screening for metabolic and mental health complications in women with PCOS. We will evaluate the impact of the PCOS guideline by examining changes in clinical screening of PCOS complications. Findings will help guide future translation of guideline into clinical practice.

Project ID: A1256	Life events, mental wellbeing and healthcare utilisation.
Lead Investigator:	<ul style="list-style-type: none"> • Dr Danusha Jayawardana - Centre for Health Economics, Monash University.
Other collaborators:	<ul style="list-style-type: none"> • Prof Brenda Gannon - Centre for Business and Economics of Health, The University of Queensland • Dr Terence Cheng - Harvard T.H. Chan School of Public Health • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Major life events have been shown to have significant impacts on people's wellbeing. However, whether life events in turn affect healthcare use is a question that is unexplored. The aim of this project is two-fold. First, this study will examine the effect of life events on mental wellbeing of women. Second, the study will explore whether the occurrence of life events lead to a significant change in healthcare resource use.
Project ID: A1257	The impact of Mediterranean diet adherence on medicine use patterns
Lead Investigator:	<ul style="list-style-type: none"> • Dr Imaina Widagdo - Quality Use of Medicines and Pharmacy Research Centre, University of South Australia
Other collaborators:	<ul style="list-style-type: none"> • Dr Evangeline Mantzioris - University of South Australia • Dr Anthony Villani - University of the Sunshine Coast • Prof Nicole Pratt - Quality Use of Medicines and Pharmacy Research Centre, University of South Australia
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Mediterranean diet (MedDiet) is a plant-based dietary pattern high in fruit, vegetables, legumes, wholegrains, nuts, seeds and fish, with olive oil being the main fat source. Being predominately plant-based, the MedDiet is low in saturated fat, and rich in several antioxidants. Adherence to a MedDiet has been shown to be associated with beneficial cardiometabolic and cognitive health outcomes and promotes healthy ageing. However, there is limited knowledge on the benefit of a MedDiet on reducing medicine use. Therefore, this project

will explore the relationship between adherence to a MedDiet and patterns of medicine use among the Australian population.

We are now working on the statistical method for the analysis on how Mediterranean Diet changes between 2 waves affect antidepressants use at the following wave among young women cohort with depressive symptoms.

Project ID: A1260	Effectiveness of Better Access psychological treatment services among Australian women: A stratified analysis using predicted symptom trajectories
-------------------	---

- | | |
|----------------------|--|
| Lead Investigator: | <ul style="list-style-type: none"> • A/Prof Dianne Currier - The University of Melbourne |
| Other collaborators: | <ul style="list-style-type: none"> • Prof Jane Pirkis - School of Population Health, University of Melbourne • A/Prof Dianne Currier - The University of Melbourne • A/Prof Matthew Spittal - The University of Melbourne • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • Dr Long Le - Deakin University • Prof Cathy Mihalopoulos - Public health and Preventive Medicine, Monash University • Dr Maria Ftanou - The University of Melbourne • Prof Philip Burgess - The University of Queensland • Dr Caley Tapp - The University of Queensland • Dr Vikas Arya - The University of Melbourne • Jan Faller - Deakin University • A/Prof Meredith Harris - The University of Queensland |
| Liaison person: | <ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle |

Synopsis: Since 2006, the Better Access program has aimed to increase the number of Australians accessing evidence-based psychological treatment through reimbursement of eligible providers under the Medicare Benefits Schedule. This study aims to investigate: (1) patterns of service utilisation and characteristics of women who have used Better Access psychological treatment services, and whether these have changed over the 15-years since the program was introduced, and (2) whether mental health outcomes differ between

women who have and have not used these services, according to their level of need.

Project ID: A1261	Major Report 2022: A focus on health and well-being for women in mid-life
Lead Investigator:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle • Natalie Townsend - Centre for Women's Health Research, The University of Newcastle • Emma Byrnes - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
Synopsis:	<p>This report for 2022 aims to primarily use longitudinal data collected from women in the Australian Longitudinal Study on Women's Health to assess factors affecting women's health in mid-life. While data from all cohorts will be presented as an initial overview, data from the 1946-51 and 1973-78 cohorts will be primarily used to show what the middle years have been like for women born in the post-war baby boom, and what they might be like for next generation who are now entering mid-life.</p>

Project ID: A1264	The accumulation of violence and multidimensional disadvantage in the lives of young Australian women
Lead Investigator:	<ul style="list-style-type: none"> • Dr Alice Campbell - Life Course Centre & Institute for Social Science Research, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Prof Janeen Baxter - Institute for Social Science Research, The University of Queensland • Dr Ella Kuskoff - School of Social Sciences, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Gendered violence is a source of disadvantage in the lives of women and a key contributor to gender inequality in contemporary Australia. According to the Australian Bureau of Statistics, girls are more likely than boys to be abused before the age of 15 (16% vs 11%), and women are almost four times as likely as men to have been the victim of sexual violence since the age of 15 (18% vs 5%). The aim of this project is to document how violence accumulates in the lives of Australian women from childhood to young adulthood, and how this violence contributes to women's multidimensional disadvantage.</p>

Project ID: A1266	Testing a methodological approach for measuring agreement across data sources and trends in the incidence and methods of induced abortion by characteristics of young women in Australia using self-report and linked administrative health data.
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Kristina Edvardsson - La Trobe University
Other collaborators:	<ul style="list-style-type: none"> • Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland • A/Prof Leesa Hooker - La Trobe University • Prof Angela Taft - School of Nursing and Midwifery, La Trobe University • Dr Mridula Shankar - Monash University • A/Prof Deborah Bateson - Family Planning NSW • Prof Kirsten Black - University of Sydney

- Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Induced abortion is a common reproductive experience for women in Australia and is recognised as an essential service. Presently abortion data for public health planning and assessment is limited. We utilise self-reported abortion data from six waves of the ALSWH 1989-95 cohort (2013-2019) and its linkages with the Medicare Benefits Schedule, Pharmaceutical Benefits Scheme and the National Morbidity Hospital Database to: (1) evaluate levels of agreement between self-report and administrative data, and (2) test a measurement approach for ascertainment of abortion method, time trends in method distribution and characteristics associated with method type among this sample of young women.

Project ID: A1269

Coding of senility and old age in hospital data and death records

Lead Investigator:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Other collaborators:

- Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis:

There is global debate concerning the appropriateness of the introduction of codes in ICD-11 in which old age is classified under general symptoms and a new extension code for age related disease. Use of such codes is supported by some who view ageing as a preventable/reversible pathological process, while others are concerned that these codes may lead to ageism in the determination of health needs and allocation of healthcare. This project will investigate how the existing codes have been applied in relation to hospital admission and cause of death, and under what circumstances.

Project ID: A1276	The relationship between a diagnosis of PCOS and menstrual irregularity, use of contraception and mental health over time
Lead Investigator:	<ul style="list-style-type: none"> • Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Tessa Copp - School of Public Health, The University of Sydney
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	In the women born in the 1989-95 cohort of ALSWH, 16% report a diagnosis of PCOS and in the 1973-78 cohort, 9% report this diagnosis. Our study will examine the relationship between the diagnosis of PCOS and a) menstrual irregularity, b) the use of the contraceptive pill and other hormonal contraceptive methods and c) the mental health of women with PCOS.
Project ID: A1277	The impact of infertility experiences and fertility treatments on women's emotional well-being and work outcomes
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Suzanne Chan-Serafin - University of New South Wales
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Hugh Bainbridge - University of New South Wales • Prof Tammy Allen - University of South Florida • Dr Man Mandy Fong - University of New South Wales • A/Prof Suzanne Chan-Serafin - University of New South Wales
Liaison person:	<ul style="list-style-type: none"> • Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	The 'invisible' challenge of infertility affects 1 in 6 Australian couples of reproductive ages. Reproductive age is often the prime of one's career. Fertility treatments are lengthy and emotionally draining processes in which significant variability in family interference with work and emotional states is expected. This study investigates the work and emotional outcomes for women experiencing infertility and those

undergoing fertility treatments over time. The study advances diversity and work-life literature by addressing the temporal aspect of infertility. By gaining a better understanding of the work and emotional impact of infertility on employees, the study will inform organizations on how to better support these employees when developing their diversity and equity human resource practices.

Project ID: A1290	Physical activity and sedentary behaviour of mothers and children among culturally and linguistically diverse communities
Lead Investigator:	<ul style="list-style-type: none"> • Dr Susan Paudel - Institute of Physical Activity and Nutrition, Deakin University
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Kylie Hesketh - School of Exercise and Nutrition Sciences, Deakin University • A/Prof Jenny Veitch - School of Exercise and Nutrition Sciences, Deakin University • Dr Gregore Mielke - School of Public Health, The University of Queensland.
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Cultural diversity is increasing in Australia with around one-fifth of the population speaking a language other than English at home. Evidence regarding physical activity and sedentary behaviour of mothers and children of culturally and linguistically diverse (CALD) communities and understanding of how different factors interact to shape these behaviours is limited. This study will examine if the prevalence of physical activity and sedentary behaviour among mothers and children differ by CALD and non-CALD background and identify associated factors. The study outputs will improve our understanding of the physical activity and sedentary behaviour practices of mothers and children from CALD communities and the sociodemographic and home environmental factors shaping these behaviours.</p>
Conference / Presentations:	<p><i>Does the prevalence of overweight/obesity, physical activity and sitting time differ by CALD background? A secondary analysis of the Australian Longitudinal Study on Women's Health.</i></p> <p>Paudel S. International Congress on Obesity (ICO) 2022, Melbourne, VIC, 18-22 October 2022.</p>

1.2 Completed projects

Project ID: A335A	Rates of weight gain in young adult women: Who is most at risk?
Lead Investigator:	<ul style="list-style-type: none">• Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Other collaborators:	<ul style="list-style-type: none">• Dr Gregore Mielke - School of Public Health, The University of Queensland.• Thanya Flores - Federal University of Pelotas• Dr Shelley Keating - School of Human Movement and Nutrition Sciences, The University of Queensland
Liaison person:	<ul style="list-style-type: none">• Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Summary:	<p>After two decades' work on obesity prevention, it is important to know whether programs have been effective, by examining the current weight problems of young Australian women. This project compared the differences in annual rate of weight gain of two cohorts of women aged 18-23 in 1996 and 2012/13. It also examined the differences in sociodemographic and health determinants of high weight gain in the two cohorts, to understand whether the determinants have remained consistent from 1996 to 2012/13.</p> <p>A paper (abstract below) was published in <i>International Journal of Obesity</i>, and one conference presentation was made.</p> <p>Background: The aims were to compare: (1) baseline weights and weight gain trajectories; (2) sociodemographic, behavioural and health characteristics driving weight gain; and (3) estimated average weight in 20 years' time, in two cohorts of young women.</p> <p>Methods: Data were from 16,066 participants in two population-based cohorts of young adult women, born in 1973-78 and 1989-95. Weight was reported at baseline (age 18-23 in both cohorts) and 4 years later. High weight gain was defined as >2.5% per year. Data were analysed in 2020.</p> <p>Results: Women born in 1989-95 were almost 4 kg heavier at age 18-23 and gained weight over 4 years 1.7 times faster than those born in 1973-78. Prevalence of high weight gain was 34.2% in the 1989-95 cohort and 24% in the 1973-78 cohort. In both cohorts, older age, higher education and high physical activity were associated with lower</p>

odds of high weight gain, and more hours in paid work, poorer self-rated health and higher baseline BMI were associated with higher odds of high weight gain. Five factors (outer regional areas, one child, ex or current smoker, high stress and depression) were determinants of high weight gain in the 1989-95 cohort, but not in the 1973-78 cohort. Based on average weight at age 21 and annual percentage weight gain, we estimate that women born in 1989-95 will, on average, be 16.7 kg heavier at age 41 (93.2 kg), than women in the 1973-78 cohort (76.5 kg).

Conclusion: High weight gain was evident in every sociodemographic group in both cohorts but most evident in millennial women with high levels of stress and depression. Without effective weight gain prevention strategies we estimate that more than 50% of the millennial women will be in the obese BMI category in 20 years. This will have serious economic, health and societal consequences.

Publications: Trajectories and determinants of weight gain in two cohorts of young adult women born 16 years apart. Brown WJ, Flores T, Keating S & Mielke GI. *International Journal of Obesity*, 2021, 45(4); 1553-1564.

Conference / Presentations: *What's happening to young women's weight? Data from the Australian Longitudinal Study on Women's Health (ALSWH)*. Brown WJ, Flores TR, Keating SE & Mielke G. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

Project ID: A343	Social support and physical activity in older Australian women
------------------	---

- | | |
|----------------------|--|
| Lead Investigator: | <ul style="list-style-type: none"> • Dr Jannique Van Uffelen - Department of Kinesiology, University of Leuven |
| Other collaborators: | <ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland • Prof Nancy Pachana - School of Psychology, The University of Queensland • Dr Nicola Burton - School of Applied Psychology, Griffith University • Dr Kristiann (Kristi) Heesch - School of Public Health, Queensland University of Technology • Yolanda Van Gellecum - Institute for Social Science Research, The University of Queensland • Dr Gabrielle Lindsay-Smith - Victoria University |

Liaison person:

- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Conference / Presentations: *Social interaction and physical activity in women in their seventies.*
van Uffelen J, Heesch K, van Gellecum Y, Burton N & Brown W.
45th Australian Association of Gerontology National Conference,
Brisbane, Qld 20-23 November 2012.

Project ID: A607B	Adverse childhood experiences among Australian women
-------------------	---

Lead Investigator:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Other collaborators:

- Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
- Peta Forder - Centre for Women's Health Research, The University of Newcastle
- Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
- Natalie Townsend - Centre for Women's Health Research, The University of Newcastle
- A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReditSS) Unit, The University of Newcastle
- Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
- Dr Alemu Sufa Melka - The University of Newcastle
- Emma Byrnes - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: The Adverse Childhood Experiences (ACE) scale has been widely used in the U.S. population. Findings have indicated that adults who have experienced adversity in childhood have poorer overall health and are more likely to use tobacco, illicit drugs and use alcohol at risky levels. The ACE scale was pilot tested with the 1989-1995 cohort in 2014 and was rolled out to the main 1989-1995 cohort in 2015. This project examined the endorsement and validity of the ACE scale among the 1989-1995 cohort participants, with further examination of the prevalence of childhood abuse and trauma and its correlates. The examination of the prevalence of childhood abuse and trauma and its

correlates was also extended to the 1973-78 cohort and 1946-51 cohort. In addition, we examined the relationship between ACEs, childhood abuse and trauma with medical and other health care costs. Outcomes were one published paper (in *Journal of Child Sexual Abuse*) and one presentation at an international conference.

Publications: Adverse childhood experiences and healthcare costs in adult life. Loxton D, Townsend N, Dolja-Gore X, Forder P & Coles J. *Journal of Child Sexual Abuse*, 2019, 28(5); 511-525.

Conference / Presentations: *Adverse Childhood Experiences: Findings from the Australian Longitudinal Study on Women's Health.* Loxton D. 16th Annual Hawaii International Summit on Preventing, Assessing and Treating Trauma Across the Lifespan. Honolulu, Hawaii, 23-26 April 2019.

Project ID: A612	Violence and reproductive ageing in mid-life
-------------------------	---

Lead Investigator:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Other collaborators:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
- Dr Abdulbasit Seid - The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Physical and psychological effects of violence may negatively impact on women's reproductive lives. Most of the research focuses on the impact of violence on women during their childbearing years. However, violence may have an enduring influence on women, affecting their experience of reproductive ageing (e.g., age of menopause, duration of peri-menopause, menopause status (including hysterectomy + bilateral oophorectomy and hormone therapy use), vasomotor, somatic and psychosocial symptoms). Using data from the 1946-51 cohort, this study will examine the extent to which violence in mid-aged women is associated with their experience of reproductive ageing in mid-life.

Publications: The role of smoking in the relationship between intimate partner violence and age at natural menopause: A mediation analysis. Mishra GD, Chung HF, Gelaw YA & Loxton D. *Women's Midlife*

Health, 2018, 4(1); 1-10.

The association between childhood sexual abuse and historical intimate partner violence with body mass index and diabetes: Evidence from the Australian Longitudinal Study on Women's Health. Abdulbasit M. Seid, Gita D. Mishra, Annette J. Dobson. *Preventive Medicine*, 2022, 161; 107134.

Conference / Presentations: *Intimate partner violence, smoking, and age at natural menopause.* Mishra G. Australasian Epidemiological Association (AEA) Annual Scientific Meeting 2017 Sydney, NSW, 28 - 30 September 2017.

Project ID: A641A	Dietary inorganic nitrite/nitrite intake in a representative sample of Australian women, and cardiovascular disease risk
Lead Investigator:	<ul style="list-style-type: none"> A/Prof Mark McEvoy - La Trobe Rural Health School, La Trobe University
Other collaborators:	<ul style="list-style-type: none"> Dr Amanda Patterson - College of Health, Medicine and Wellbeing, The University of Newcastle Dr Lesley MacDonald-Wicks - Nutrition & Dietetics, The University of Newcastle Peta Forder - Centre for Women's Health Research, The University of Newcastle Carl Holder – South Australian Health and Medical Research Institute Dr Christopher Oldmeadow - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, Hunter Medical Research Institute Jacklyn Jackson - School of Health Sciences, The University of Newcastle Dr Natalie Ward - Faculty of Health and Medical Sciences, The University of Western Australia Dr Catherine Bondonno - Edith Cowan University Prof Jonathan Hodgson - Edith Cowan University Lauren Blekkenhorst - Edith Cowan University
Liaison person:	<ul style="list-style-type: none"> Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:	<p>Nitric Oxide (NO) is an important signalling molecule in the cardiovascular system and is vital for vascular function. Further, conditions of NO deficiency due to aging, diabetes and smoking are associated with the development of hypertension and atherosclerosis. Vegetables (especially beetroot and leafy greens) provide the richest dietary source of inorganic nitrate. Dietary nitrate can be utilized via the Nitrate-Nitrite-NO pathway to produce NO, indicating a relatively simple and cost-effective method for restoring NO status.</p>
Publications:	<p>Dietary nitrate and diet quality: An examination of changing dietary intakes within a representative sample of Australian women. Jackson J, Patterson AJ, MacDonald-Wicks LK, Bondonno CP, Blekkenhorst LC, Ward NC, Hodgson JM, Byles JE & McEvoy MA. <i>Nutrients</i>, 2018, 10(8); 1005.</p> <p>Vegetable nitrate intakes are associated with reduced self-reported cardiovascular-related complications within a representative sample of middle-aged Australian women, prospectively followed up for 15 years. Jackson JK, Patterson AJ, MacDonald-Wicks LK, Forder PM, Blekkenhorst LC, Bondonno CP, Hodgson JM, Ward NC, Holder C, Oldmeadow C, Byles JE & McEvoy MA. <i>Nutrients</i>, 2019, 11(2); 240.</p> <p>Better diet quality scores are associated with a lower risk of hypertension and non-fatal CVD in middle-aged Australian women over 15 years of follow-up. Jackson JK, MacDonald-Wicks LK, McEvoy MA, Forder PM, Holder C, Oldmeadow C, Byles JE & Patterson AJ. <i>Public Health Nutrition</i>, 2020, 23(5); 882-893.</p>
Conference / Presentations:	<p><i>Dietary nitrate intakes within a representative sample of Australian women.</i> J Jackson, et al. Dietitians Association of Australia 35th National Conference, Sydney, NSW, 17-19 May 2018.</p> <p><i>Diet quality changes over 12-years of follow-up in a representative sample of Australian mid-aged women.</i> J Jackson, et al. Nutrition Society of Australia, 42nd Annual Scientific Meeting, Canberra, ACT, 27 - 30 November 2018.</p> <p><i>Is dietary nitrate associated with a lower risk of CVD related complications among middle aged Australia women.</i> J Jackson, et al. Nutrition Society of Australia, 42nd Annual Scientific Meeting, Canberra, ACT, 27 - 30 November 2018.</p>

Project ID: A684C	Death certification of elderly women with dementia, and other chronic conditions
Lead Investigator:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Michael Waller - School of Public Health, The University of Queensland • Paul McElwee - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Death certification is difficult for elderly people with multiple chronic conditions. As a result, doctors may omit to mention some conditions, such as dementia. However, the underlying causes of death recorded on death certificates form one of the foundations of the national health statistics produced by the Australian Bureau of Statistics (ABS), and in turn have significant influence on health policy and service provision. This project aimed to improve understanding of the accuracy of death certification and to help ABS develop better methods of collecting and reporting mortality data.</p>
Publications:	<p>Accuracy of death certifications of diabetes, dementia, and cancer in Australia: A population-based cohort study. Xu Z, Hockey R, McElwee P, Waller M & Dobson A. <i>BMC Public Health</i>, 2022, 22(1); 902.</p>
Conference / Presentations:	<p><i>Accuracy of death certificates as a source of information on dementia.</i> Dobson A, Hockey R, McElwee P & Waller M. Australian Dementia Forum 2021, Dobson A, Hockey R, McElwee P & Waller M. 31 May-1 June 2021.</p> <p><i>Relative Survival for women with a record of dementia (poster presentation).</i> Baneshi RM, Waller M, McElwee P & Dobson A. Australian Dementia Forum 2021, Baneshi RM, Waller M, McElwee P & Dobson A. 31 May-1 June 2021.</p>

Exploring the underlying patterns among causes of death listed in Part II of death certificates using Social Network Analysis.

Baneshi, MR, McElwee P & Dobson A. 5th meeting of the MultiCause network, Bonn Germany, 19-20 May 2022.

Exploring the association between causes of death listed in Part II of death certificates by comparison of the observed and expected frequency of pairs and triads of diseases: A Bayesian approach.

Baneshi MR, McElwee P & Dobson A. 5th meeting of the MultiCause network, Bonn Germany, 19-20 May 2022.

Accuracy of death certifications of diabetes, dementia, and cancer in Australia.

Xu Z, McElwee P, Hockey R & Dobson A. 5th Meeting of the MultiCause Network, 19-20 May 2022.

Project ID: A706	Impact of a PCOS diagnosis on health-related behaviour, lifestyle choices and psychosocial wellbeing
Lead Investigator:	<ul style="list-style-type: none"> Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> Prof Mohammad Reza Baneshi - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age and is associated with adverse reproductive, metabolic, cardiovascular and psychosocial outcomes. Using data from the 1989-95 cohort, this project focused on women who report a new diagnosis of PCOS (not reported in Survey 1 but in subsequent surveys) and examines whether the diagnosis is associated with changes in BMI, lifestyle (physical activity, diet, smoking, alcohol use, contraceptive use) and psychosocial wellbeing (self-harm, disordered eating, distress). These women were compared to women without PCOS, and women who initially reported a diagnosis of PCOS but did not re-report.</p>
Publications:	<p>Impact of a diagnosis of polycystic ovary syndrome on diet, physical activity and contraceptive use in young women: Findings from the Australian Longitudinal Study of Women's Health. Copp T, Cvejic E, McCaffery K, Hersch J, Doust J, Mol BW, Dokras A, Mishra G & Jansen J.. <i>Human Reproduction</i>, 2020, 35(2); 394-403.</p>

Conference /
Presentations:

'I wonder whether it would have been better not to know' Polycystic ovary syndrome (PCOS) and the potential for overdiagnosis.
Copp T. Preventing Overdiagnosis 2019, Sydney, NSW, 5-7 December 2019.

Project ID: A715

Social interactions and loneliness in older Australian women

Lead Investigator:

- Dr Rosanne Freak-Poli - Monash University

Other collaborators:

- Prof Jane Fisher - School of Public Health and Preventive Medicine, Monash University
 - Dr Sam Brilleman - Monash University
 - Dr Thach Tran - School of Public Health and Preventive Medicine, Monash University
 - Dr Alice Owen - Monash University
 - Dr Joanne Ryan - Monash University
 - Dr Joanna McHugh Power - National College of Ireland
 - Prof Michael Berk - School of Medicine, Deakin University
 - Prof Nigel Stocks - Adelaide Medical School, The University of Adelaide
 - David Gonzalez-Chica - Adelaide Medical School, The University of Adelaide
 - Prof Judy Lowthian - Bolton Clarke Research Institute
- Liaison person:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Social isolation and loneliness increase the risk of depression and death and likely represents a greater public health hazard than obesity. Last year, researchers found that Irish and English older adults who reported being not socially isolated but lonely were more likely to have cognitive decline. This example illustrates the adverse health effects of being 'alone in a crowd' and how social interactions should be assessed in combination with loneliness. This project investigated several key concepts to progress our understanding of how the combination of social isolation and loneliness affects our health and longevity. An excerpt from an [article](#) published in the Medical Journal of Australia Insight + provides a summary of findings:

My colleagues and I tested the separation of social health concepts among 10,517 women aged 70-75 years from the Australian Longitudinal Study on Women's Health in relation to health-related

quality of life, which is defined as an individual's self-perceived health status in relation to the social, cultural and environmental context. We found that social isolation, low social support and loneliness were each independently associated with worse mental and physical quality of life. Loneliness had the strongest association with mental quality of life (- 10 units), followed by low social support (- 5) and social isolation (- 2). For physical quality of life, loneliness (- 2), low social support (- 2) and social isolation (- 1) were similar in their strength of association. As expected, we found that being positive on all three constructs was best, and being negative on all three was worst, for both mental and physical quality of life.

What was interesting is that someone who might enjoy their solitude (socially isolated, low social support, but not lonely) had similar mental and physical quality of life scores to those who were positive on all three social health concepts. Also, I was surprised that people who were alone in a crowd (not socially isolated, high social support, but lonely) were disparate from people who reported being negative on all three concepts. This latter finding highlights the importance of the three social health concepts being assessed simultaneously, rather than loneliness by itself. While people in the negative and alone-in-a-crowd groups were both lonely, an intervention to improve social contacts and support may be more beneficial to the negative group.

Publications:

Social Isolation, Social Support and Loneliness as independent concepts, and their relationship with Health-related Quality of Life among older women. Freak-Poli R, Ryan J, Tran T, Owen A, McHugh Power J, Berk M, Stocks N, Gonzalez-Chica D, Lowthian J, Fisher J & Byles J. *Aging and Mental Health*, 2022 ; 26(7):1335-1344.

Project ID: A816	Menopausal hormone therapy use and the risk of melanoma
Lead Investigator:	<ul style="list-style-type: none"> • Dr Edoardo Botteri - Cancer Registry Norway
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Zhiwei Xu - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Nathalie Stoer - Cancer Registry of Norway • Dr Elisabete Weiderpass - International Agency for Research on Cancer (IARC)
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>The association between use of menopausal hormone therapy and risk of cutaneous melanoma is highly debated. We investigated the association in different European cohorts, showing a detrimental effect of estrogens on melanoma risk. Moreover, our findings suggest a possible protective effect of progestins. We evaluated this association in the ALSWH, focusing on the 1946-1951 cohort, because in that cohort we have the information on HRT use from both the questionnaires and the Pharmaceutical Benefits Scheme. Information on hysterectomy and menopausal status was used, together with other possible confounders.</p> <p>Results of the study have been published in the journal <i>Maturitas</i>.</p>
Publications:	Menopausal hormone therapy and melanoma risk in the Australian longitudinal study on women's health. Botteri E, Xu Z, Stoer NC & Mishra GD. <i>Maturitas</i> , 2022, 160; 1-3.

Project ID: A819A	Lifetime reproduction outcomes in women with polycystic ovary syndrome
Lead Investigator:	<ul style="list-style-type: none"> • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University
Other collaborators:	<ul style="list-style-type: none"> • Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University • Dr Jillian (Chau Thien) Tay - Monash University

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Polycystic ovary syndrome (PCOS) is a complex hormonal disorder common affecting one in five women and one in four Australian Indigenous women. It is one of the most common causes of infertility and more than two-thirds of women with PCOS require fertility treatment to conceive. Family planning in women with PCOS is therefore extremely important as the success of fertility treatment is highly dependent on age. In this study, over the women's reproductive life, we examined their preconception health and fertility outcomes including the mean age of first delivery, use of fertility treatment, and final family size.

Publications: Negative associations of ideal family size achievement with hypertension, obesity and maternal age in women with and without polycystic ovary syndrome. Tay CT, Loxton D, Khomami MB, Teede H & Joham AE. *Clinical Endocrinology*, 2022, 97(2):217-226.

Project ID: A826	Changes in body-mass index and smoking status between pregnancies and risk of miscarriage: The Australian Longitudinal Study on Women's Health
------------------	---

Lead Investigator:

- Dr Maria Christine Magnus - Centre for Fertility and Health, Norwegian Institute of Public Health

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Richard Hockey - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Siri Eldevik HÅberg -

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: In this project, we examined whether women who smoke or are obese before pregnancy have an increased risk of miscarriage. We also looked at whether changes in smoking habits or weight between pregnancies might influence the risk of miscarriage in the later pregnancy. The information from this project will help clinicians in providing women with lifestyle recommendations to reduce their risk of miscarriage.

Publications:	Pre-pregnancy lifestyle characteristics and risk of miscarriage: The Australian Longitudinal Study on Women's Health. Magnus MC, Hockey RL, Haberg SE & Mishra GD. <i>BMC Pregnancy Childbirth</i> , 2022, 22(169).
Project ID: A840A	Women's experience of health care access during COVID-19
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Jennifer White - University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The widespread outbreak of the Coronavirus Disease 2019 (COVID-19) is a challenge for public health and medical care service provision. As a result, countries have had to make tough decisions in order to safeguard their people. These decisions include lockdowns and restrictions on people's movement and engagement with society, and limited access to health care. Such restrictions have had an impact on use of health care including assessment and diagnosis, follow-up and monitoring, and prescription refills since access to health facilities and their attending physicians and other health professionals may have been restricted or denied. In response to the restructuring of hospital and community services to reduce the spread of the coronavirus, anecdotal reports suggest that the management of complex conditions has been negatively affected. This mixed methods study aimed to further understand women's experiences of health service access during the COVID pandemic.</p>
Publications:	<p>The experience of delayed health care access during the COVID 19 pandemic in Australian women: A mixed methods exploration. White J, Cavenagh D, Byles J, Mishra G, Tooth L & Loxton D. <i>Health & Social Care in the Community</i>, 2022, 30(4): e1384–e1395.</p>
Conference / Presentations:	<p><i>Delayed health care access during the COVID19: A mixed methods exploration.</i></p> <p>White J, Cavenagh D, Loxton D & Byles J Australasian COVID-19</p>

Virtual Conference Virtual Conference 8-10 December 2020.

Delayed health care access during the pandemic. Tooth L, White J, Cavenagh D, Byles J, Mishra G, & Loxton D. QLD Women's Health Forum, Toowoomba, 12-13th September 2022.

Project ID: A1222	Exploring the experience of living with diabetes in Australian women: A qualitative exploration
Lead Investigator:	<ul style="list-style-type: none">• Dr Jennifer White - University of Newcastle
Other collaborators:	<ul style="list-style-type: none">• Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none">• Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Summary:	<p>This study explored the experience of living with diabetes in women participating in the Australian Longitudinal Study on Women's Health. This is the first time the comments of the women have been analysed to gain insights into their own descriptions of diabetes impact on their lives. The women expressed frustrations with seeking help, particularly around the diagnosis but appreciated General Practitioner and specialist care when this is provided. Women also see diabetes as a chance to help improve their behaviours.</p>

Project ID: A1226	Australian women's mental health and wellbeing in the context of the COVID-19 pandemic
Lead Investigator:	<ul style="list-style-type: none">• Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none">• Peta Forder - Centre for Women's Health Research, The University of Newcastle• Natalie Townsend - Centre for Women's Health Research, The University of Newcastle• Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle• Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle• Nick Egan - Centre for Women's Health Research, The University of Newcastle• Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle

- Emma Byrnes - Centre for Women's Health Research, The University of Newcastle
- Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle
- Katherine Tuckerman - Centre for Women's Health Research, The University of Newcastle
- Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Summary:

The COVID-19 pandemic has had a noticeable impact on mental health and mental health services, with uptake showing an increase of 14.5% from 2019 to 2020. Crisis line contacts were also 15% higher during 2020, compared to 2019¹. The Australian Longitudinal Study on Women's Health reported high levels of general stress and psychological distress among women in their twenties and forties during 2020². The purpose of this research was to highlight the impact of COVID-19 and policies designed to control COVID-19 on the mental health of women from across Australia, including the impact of economic factors such as poverty and employment. A report was prepared for Mental Health Commission which profiled those who were most at risk of experiencing mental health problems during 2020, by taking account of previous mental health, sociodemographic status, caring responsibilities and a history of abuse prior to the pandemic. The report also identified the burdens experienced, and coping strategies used by women during 2020, and established the impact of the pandemic on women's safety. The outcomes of this report have been used by the National Mental Health Commission to inform the development of policy and to support submissions to the development of the National Plan to Reduce Violence Against Women and their Children.

1. <https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia/report-contents/mental-health-impact-of-covid-19/impacts-on-australian-government-funded-mental-health-service-activity>

2: <https://www.alsw.org.au/outcomes/reports/covid-19-survey-reports/>

Conference /
Presentations:

From April to October: Women's health and wellbeing during COVID-19.

Loxton D. Australasian COVID-19 Conference Loxton D. 8-10 December 2020.

Project ID: A1296

Positive aspects of caregiving - A cross-country comparison approach

Lead Investigator:

- Emily Princehorn - Centre for Women's Health Research, The University of Newcastle

Other collaborators:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Few studies examine the trajectories of caregivers across their caregiving journey and even fewer, if any, of these focus on the positive aspects of caregiving. In this project, data from the Australian Longitudinal Study on Women's Health was used to examine how caregiver experiences change across time and identify predictors of positive caregiver experiences.

2 APPENDIX B: STUDENT PROJECTS

2.1 Current student projects

Project ID: A414B	InterLACE: International collaboration for a life course approach to reproductive health and chronic disease events
Lead Investigator:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Student:	<ul style="list-style-type: none"> Chen Liang - Australian Women and Girls' Health Research Centre, University of Queensland
Other collaborators:	<ul style="list-style-type: none"> Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland Prof Debra Anderson - Faculty of Health, University of Technology Sydney Dr Hsin-Fang Chung - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>InterLACE provides a unique opportunity to conduct world-leading research in collaboration with key national and international investigators on women's health studies from 11 nations. We will undertake cross-cohort research by combining data at the individual level from more than 800 000 participants in 26 existing longitudinal studies (including ALSWH young & mid-age cohorts) to investigate the role of reproductive health across life on subsequent chronic diseases, especially CVD events and Type 2 Diabetes Mellitus (T2DM). While this poses cross-cohort and cross-cultural research challenges, InterLACE has the capability to address research questions and generate robust evidence that is not possible from any single cohort study.</p> <p>The EPIC-Prospect cohort (Netherlands) newly joined the InterLACE consortium in 2021. We have combined data at the individual level from more than 850,000 women in 27 studies across 12 countries.</p>
Publications:	<p>Vasomotor menopausal symptoms and risk of cardiovascular disease: A pooled analysis of six prospective studies. Zhu D, Chung H-F, Dobson AJ, Pandeya N, Anderson DJ, Kuh D, Hardy R,</p>

Brunner EJ, Avis NE, Gold EB, Crawford SL & Mishra GD. *American Journal of Obstetrics & Gynecology*, 2020, 223(6); 898.e1 - 898.e16.

Type of menopause, age of menopause and variations in the risk of incident cardiovascular disease: pooled analysis of individual data from 10 international studies. Zhu D, Chung H-F, Dobson AJ, Pandeya N, Brunner EJ, Kuh D, Greenwood DC, Hardy R, Cade JE, Giles GG, Bruinsma F, Demakakos P, Simonsen MK, Sandin S, Weiderpass E & Mishra GD. *Human Reproduction*, 2020, 35(8); 1933-1943.

Meta-analysis for individual participant data with a continuous exposure: A case study. Darssan D, Mishra GD, Greenwood DC, Sandin S, Brunner EJ, Crawford SL, ElKhoudary SR, Mori Brooks M, Gold EB, Kildevaeld Simonsen M, Chung H-S, Weiderpass E & Dobson A. *Journal of Clinical Epidemiology*, 2021, 140; 79-92.

Age at menarche and risk of vasomotor menopausal symptoms: A pooled analysis of six studies. Chung HF, Zhu D, Dobson AJ, Kuh D, Gold EB, Crawford SL, Avis NE, Mitchell ES, Woods NF, Anderson DJ & Mishra GD. *BJOG: An International Journal of Obstetrics & Gynaecology*, 2021, 128(3); 603-13.

The association between reproductive lifespan and incident cardiovascular disease: A pooled analysis of individual patient data from 12 studies. Mishra SR, Chung H-F, Waller M, Dobson J, Greenwood DC, Cade JE, Giles GG, Bruinsma F, Simonsen MK, Hardy R, Kuh D, Gold EB, Crawford SL, Derby CA, Matthews KA, Demakakos P, Lee JS, Mizunuma H, Hayashi K, Sievert LL, Brown DE, Sven Sandin S, Weiderpass E, Mishra GD. *JAMA Cardiology*, 2020, 5(12); 1410-1418.

Infertility, recurrent pregnancy loss, and risk of stroke: pooled analysis of individual patient data of 618,851 women. Liang C, Chung H-F, Dobson A, Hayashi K, van der Schouw Y, Kuh D, Hardy R, Derby CA, El Khoudary SR, Janssen I, Sandin S, Weiderpass E & Mishra GD. *BMJ*, 2022, 377; e070603.

Association of the length of oestrogen exposure with risk of incident stroke in postmenopausal women: Insights from a 20-year prospective study. Mishra SR, Waller M, Chung HF & Mishra GD. *International Journal of Cardiology*, 2021, 328; 206-214.

Conference / Presentations:	<p>Association between reproductive lifespan and risk of incident type 2 diabetes and hypertension in postmenopausal women: Findings from a 20-year prospective study. Mishra SR, Waller M, Chung H-F & Mishra GD. <i>Maturitas</i>, 2022, 159; 52-61.</p> <p><i>Early menstruation and risk of vasomotor symptoms: A pooled analysis of six studies (poster presentation).</i></p> <p>Chung H-F & Mishra G. Queensland Women's Health Forum 2021, Chung H-F & Mishra G. 27-28 May 2021.</p> <p><i>Smoking, body mass index, and risk of vasomotor symptoms: A pooled analysis of eight studies (oral presentation).</i></p> <p>Chung H-F, Anderson D, Mishra D. World Congress of Epidemiology, 2021. Virtual, 3-6 September 2021.</p>
-----------------------------	---

Project ID: A444A	Hospital use of women 85+
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Mitiku Teshome Hambisa - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Befikadu Wubishet - Faculty of Health and Medicine, The University of Newcastle • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle • Prof Hal Kendig - Centre for Research on Ageing, Health & Wellbeing, Australian National University
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>More women than ever are living past the age of 85 in Australia, but little is known about the nature of their hospital service use, hospital experience and hospital outcomes. Increasing age alone is a risk factor for hospitalisation and less optimal outcomes, but other factors such as demographics and comorbidities also contribute to these experiences. As the aging population places increased demand on health services and resources, the importance of understanding the</p>

details of their hospital use is paramount. This project will investigate reasons for hospital admission and how age, demographics and comorbidities may influence the risks of hospitalisation, hospital use and hospital outcomes among older women.

Publications: Rehabilitation and convalescent hospital stay in New South Wales: An analysis of 3,979 women aged 75+. Chojenta C, Byles J & Nair BK.. *Australian and New Zealand Journal of Public Health*, 2018, 42(2); 195-199.

First incident hospitalisation for Australian women aged 70 and beyond: A 10-year examination using competing risks. Harris ML, Dolja-Gore X, Kendig H & Byles JE. *Archives of Gerontology and Geriatrics*, 2016, 64; 29-37.

End of life hospitalisations differ for older Australian women according to death trajectory: A longitudinal data linkage study. Harris ML, Dolja-Gore X, Kendig H, Byles JE. *BMC Health Services*, 2016, 16(484); 1-12.

Patterns of hospitalization risk for women surviving into very old age: Findings from the Australian Longitudinal Study on Women's Health. Dolja-Gore X, Harris M, Kendig H & Byles JE. *Medical Care*, 2017, 55(4); 352-361.

Conference / Presentations: *Determinants of overnight hospital admissions for Australians aged 85+ in their last year of life.*

Dolja-Gore X, Harris ML, Kendig H & Byles J. 12th Annual 45 and Up Study Collaborators' Meeting, Sydney, NSW, 12 November 2015.

Balancing health care use over later life: A longitudinal study of ageing, health and health service use by 12432 Australian women over 19 years.

Byles J. 10th IAGG (International Association of Gerontology and Geriatrics) Asia/Oceania 2015, Chiang Mai, Thailand 19 - 22 October 2015.

Project ID: A505B

Dietary iron and haem iron intakes among women of reproductive age from the Australian Longitudinal Study on Women's Health

Lead Investigator:

- A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle

- Student:
- Leona Phillips - School of Medicine and Public Health, The University of Newcastle
- Other collaborators:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Dr Amanda Patterson - College of Health, Medicine and Wellbeing, The University of Newcastle
 - Dr Ellie D Arcy - Health Intelligence Unit, NSW Health
 - A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReDITSS) Unit, The University of Newcastle
 - Simon Chiu - Hunter Medical Research Institute
 - Prof Anthony Perkins - Griffith University
 - Elle McKenna - Griffith University
 - Shanna Fealy - School of Nursing, Midwifery, and Indigenous Health, Charles Sturt University
 - Dr Lucy Leigh - Hunter Medical Research Institute
 - Joshua Dizon - CReDITSS, Hunter Medical Research Institute
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Iron is an essential transitional metal and micronutrient; however, deficient and excess levels are associated with adverse outcomes. During pregnancy iron deficiency is associated with preterm birth and low birth weight and elevated iron stores with increased risk of gestational diabetes and preeclampsia. This record-linkage study uses a longitudinal survey to assess low and high levels of dietary iron and haem iron intakes and risk of adverse pregnancy and birth outcomes. We will examine dietary intakes from the 1973-78 ALSWH cohort in 2003 and 2009 and obstetric data from the ALSWH surveys and linked Perinatal Data Collection and Admitted Patients Data Collection in NSW, QLD, WA and ACT.

Project ID: A644

Health and wellbeing among older Australian women before and after cataract surgery

- Lead Investigator:
- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle

Student:	<ul style="list-style-type: none"> • Mitiku Teshome Hambisa - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • Dr Dinberu Shebeshi - The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>This project aims to look at how many mid-aged women and older women have reported cataract and cataract surgery and cross-check this (where possible) against hospital and Medicare records, The investigators also plan to examine the health and wellbeing of women prior to reporting cataract surgery and how this may change before and after cataract surgery. The investigators are particularly interested in how cataracts (and cataract surgery) may influence women's continued ability to drive.</p>
Publications:	<p>Predictors of driving among older Australian women from 2002 to 2011: A longitudinal analysis of Australian Longitudinal Study on Women's Health based on the World Health Organization's Healthy Ageing Framework. Hambisa MT, Dolja-Gore X & Byles JE. <i>Journal of Transport & Health</i>, 2021, 22; 101116.</p> <p>Application of Andersen-Newman model to assess cataract surgery uptake among older Australian women: findings from the Australian Longitudinal Study on Women's Health (ALSWH). Hambisa MT, Dolja-Gore X & Byles J. <i>Aging Clinical and Experimental Research</i>, 2022, 34(7):1673-1685.</p> <p>Determinants of driving among oldest-old Australian women. Hambisa MT, Dolja-Gore X & Byles J. <i>Journal of Women and Aging</i>, 2022, 34(3); 351-371.</p>
Conference / Presentations:	<p>6 Predictors of driving among oldest-old Australian women based on World Health Organization approach to Healthy Ageing. Hambisa M, 53rd AAG Conference, 18-20 November 2020.</p> <p><i>Application of Andersen-Newman model to assess cataract surgery uptake among older Australian women: Findings from the Australian Longitudinal Study on Women's Health.</i> Hambisa M. Australian Society for Medical Research (ASMR)</p>

Project ID: A666	The association between diet quality and work transitions in reproductive aged women
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University
Student:	<ul style="list-style-type: none"> • Julie Martin - Research Centre for Health Research and Implementation, Monash University
Other collaborators:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University • Dr Cheryce Harrison - Monash University • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • Sanjeeva Ranasinha - Monash Centre for Health Research and Implementation, Monash University • Dr Siew Lim - Monash Centre for Health Research and Implementation (MCHRI), Monash University • Maureen Makama - Monash Centre for Health Research and Implementation (MCHRI), Monash University • Prof Helen Skouteris - Health and Social Care Unit, Monash University
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Young women are increasingly challenged with balancing their family and work-life. The association between diet quality and women's work transitions before and after the birth of their child is poorly understood. This study will investigate diet quality as measured by the Dietary Guideline Index (DGI) using dietary data from the food frequency questionnaires completed by postpartum women who had given birth from the Young (1973-78) cohort at survey 5. Specifically, we will investigate the association between diet quality and paid and</p>

unpaid maternity leave arrangements, duration of maternity leave, and working arrangements (full time, part time, casual) after childbirth.

- Publications:** Postpartum diet quality: A cross-sectional analysis from the Australian Longitudinal Study on Women's Health. Martin JC, Joham AE, Mishra GD, Hodge AM, Moran LJ & Harrison CL. *Journal of Clinical Medicine*, 2020, 9(2); 446.
- Conference / Presentations:** *Physical activity and sitting time across postpartum life stages: A cross-sectional analysis (On-demand Oral presentation).* Makama M, Lim S, Skouteris H, Harrison CL, Joham AE, Mishra GD, Teede H, Brown W, Martin J & Moran L. World Congress of Epidemiology, Virtual, 3-6 September 2021.
- Physical activity and sitting time across postpartum life stages (gallery presentation).* Makama M, Lim S, Skouteris H, Harrison CL, Joham AE, Mishra GD, Teede H, Brown W, Martin J & Moran L. The Austral-Asia Obesity Research Update (ANZOS), Virtual Conference Virtual, 2021.

Project ID: A677	Health care utilisation and health economics of diabetes among Australian women
Student:	<ul style="list-style-type: none"> • Dr Befikadu Wubishet - Faculty of Health and Medicine, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Prof Carol Jagger - Institute of Ageing and Health, Newcastle University • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • Dr Md Mijanur Rahman - The Daffodil Centre, University of Sydney, a joint venture with Cancer Council NSW • Dr Shamasunder Acharya - General Medicine / Endocrinology, John Hunter Hospital • Danielle Lang - School of Medicine and Public Health, The University of Newcastle

Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Diabetes is one of the primary chronic conditions contributing to morbidity, mortality and economic burden in Australia. More accurate information on health care utilization patterns and associated costs in the whole spectrum of the diabetic population as well as specific groups such as patients at their end of life is important for future planning of healthcare services, particularly as diabetes incidence continues to rise. In addition, information on clinical practice-based cost effectiveness of antidiabetic medications aids decision-making and resource use optimization for diabetes patients. The project, primarily, aims to assess health care utilization of women with and without diabetes and the incremental costs incurred by the government and patients (out-of-pocket) due to diabetes and its complications. ALSWH self-reported data will be linked to administrative databases (Medicare Benefits Scheme, Pharmaceutical Benefits Schedule, hospital data and national death index).</p>
Publications:	<p>Predictors of 15-year survival among Australian women with diabetes from age 76-81. Wubishet BL, Harris ML, Forder PM, Acharya SH & Byles JE. <i>Diabetes Research and Clinical Practice</i>, 2019, 150; 48-56.</p> <p>Impact of diabetes on life and healthy life expectancy among older women. Wubishet BL, Byles JE, Harris ML & Jagger C. <i>The Journals of Gerontology: Medical Sciences</i>, 2021, 76(5); 914-921.</p> <p>Age and cohort rise in diabetes prevalence among older Australian women: case ascertainment using survey and healthcare administrative data. Wubishet BL, Harris ML, Forder PM & Byles JE. <i>PLOS One</i>, 2020, 15(6); e0234812.</p>
Conference / Presentations:	<p><i>Rising diabetes prevalence among older Australian women.</i> Wubishet B, Harris M, Lang D, Acharya S, & Byles J. 51st Australian Association of Gerontology Conference, Melbourne, Vic, 21 - 23 November 2018.</p> <p><i>Rising diabetes prevalence among older Australian women.</i> Wubishet B, Harris M, Lang D, Acharya S, & Byles J. Emerging Health Policy Research Conference, Menzies Centre for Health Policy, Sydney, NSW, 26 July 2018.</p> <p><i>Costs of major complications of type 2 diabetes: A systematic</i></p>

review.

Wubishet B L, Harris M, Abbas SS, Lang D, Acharya S, & Byles J. 16th National Conference of Emerging Researchers in Ageing (ERA 2017), Perth, WA, 6-7 November 2017.

End of life health care costs among older Australian women with Diabetes.

Wubishet B, Harris M, Lang D, Acharya S, & Byles J. Annual Colloquium at Australia's Premier Digital Health, Health Informatics and E-Health Conference, Sydney, NSW, July 2018.

Impact of diabetes on life and healthy life expectancy among older women.

Wubishet BL, Byles JE, Harris ML & Jagger C. 18th National Conference of Emerging Researchers in Ageing, Sydney, NSW, 4-5 November 2019.

Project ID: A685

Using epidemiological evidence to aid tailored joint decision making in areas of clinical uncertainty in the management of cardiovascular diseases (CVD) in later life

Student:	<ul style="list-style-type: none">• Dr Shazia Abbas - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none">• Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle• Peta Forder - Centre for Women's Health Research, The University of Newcastle• Dr Tazeen Majeed - School of Medicine and Public Health, University of Newcastle• Dr Natasha Weaver - School of Medicine and Public Health, The University of Newcastle
Liaison person:	<ul style="list-style-type: none">• Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The project aims to develop a decision-making tool to quantitatively assess the probabilities of all outcomes associated with atrial fibrillation; integrating patient profile and patient preferences for each outcome to help clinicians and patients make informed decisions in choosing the anticoagulant regimens/treatment to the balance the risk of stroke, bleeding and death in patients with atrial fibrillation.</p>

- Publications:**
- Patterns of medications for atrial fibrillation among older women: results from the Australian Longitudinal Study on Women's Health. Abbas SS, Majeed T, Nair BR, Forder P, Weaver N & Byles J. *Journal of Cardiovascular Pharmacology and Therapeutic*, 2020, 26(1); 59-66.
- Burden of atrial fibrillation and stroke risk among octagenarian and nonagenarian women in Australia. Abbas SS, Majeed T, Nair K, Forder P, Weaver N & Byles J. *Annals of Epidemiology*, 2020, 44; 31-37.e2.
- Utility estimations of health states of older Australian women with atrial fibrillation using SF-6D. Abbas SS, Majeed T, Weaver N, Nair BR, Forder PM, Byles JE. *Quality of Life Research*, 2021, 30(5); 1457-1466.
- Conference / Presentations:**
- Using epidemiological evidence to aid tailored joint decision making in areas of clinical uncertainty in the management of cardiovascular diseases (CVD) in later life.*
Abbas S. 16th National Conference of Emerging Researchers in Ageing (ERA 2017), Perth, WA, 6-7 November 2017.
- Use of medications for Atrial Fibrillation among Australian women.*
Abbas SS. 51st Australian Association of Gerontology Conference, Melbourne, Vic, 21 - 23 November 2018.
- Matters of the Heart - Medications for Atrial Fibrillation..*
Abbas SS. The Australian Society for Medical Research (ASMR) 6th Annual Newcastle Satellite Scientific Meeting, Newcastle, NSW, 3 June 2019.

Project ID: A687	Investigating the association between depressive symptoms and hypertension in the young ALSWH cohort
------------------	---

- Student:**
- Dr Regina Prigge - The University of Edinburgh
- Other collaborators:**
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - Dr Caroline Jackson - School of Molecular, Genetic and Population Health Sciences, The University of Edinburgh
 - Prof Sarah Wild - The University of Edinburgh
- Liaison person:**
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Depression might lead to an increased risk of hypertension. However, findings of published studies are conflicting and many have methodological limitations. We aim to investigate the association between time-varying depressive symptoms and hypertension among the young ALSWH cohort, to assess whether the association varies by distinct depressive symptom subgroups, and to investigate factors that might mediate this increased risk. For example, a previous study using the mid-aged ALSWH cohort found that depressive symptoms were associated with increased risk of hypertension. This association markedly attenuated following adjustment for body mass index (BMI), suggesting that BMI may confound and/or mediate the association.

Project ID: A692A	Mental health and bone quality in Australian women
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Mark McEvoy - La Trobe Rural Health School, La Trobe University
Student:	<ul style="list-style-type: none"> • Dr Abhijit Chowdhury - Centre for Clinical Epidemiology and Biostatistics, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Tazeen Majeed - School of Medicine and Public Health, University of Newcastle • A/Prof Liz Holliday - Clinical Research Design, Information Technology and Statistical Support (CReditSS) Unit, The University of Newcastle • Dr Abhijit Chowdhury - Centre for Clinical Epidemiology and Biostatistics, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: The project will explore the impact of depression and/or anxiety on new-onset osteoporosis and low-trauma fractures among older and mid-aged Australian women over 20 years. Epidemiological studies showed a higher risk of osteoporosis and low-trauma fractures in people with depression and/or anxiety than people without depression and/or anxiety. But the causal and temporal associations between these factors are yet to be established. Alongside the ALSWH 1921-26 and 1946-51 birth cohorts' survey data, this project will use linked data for a better understanding of these relationships.

Project ID: A695	A longitudinal investigation of the somatisation construct in a nationally representative sample of younger women
-------------------------	--

- Lead Investigator: • Dr Anastasia Ejova - School of Psychology, The University of Adelaide
- Student: • Amy Beth Myles - University of Adelaide
- Other collaborators: • Dr Natasha Koloski - Office PVC - Health, The University of Newcastle
- Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
- Prof Nicholas Talley - Faculty of Health, The University of Newcastle
- Prof Mike Jones - Psychology Department, Macquarie University
- Dr Alissa Beath - Macquarie University
- Prof Marjorie Walker - Hunter Medical Research Institute, The University of Newcastle
- Liaison person: • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Somatisation is classically thought of as the physical expression of psychological distress, yet it is typically measured without reference to distress. Instead, it is measured in terms of whether one is bothered 'a lot' as opposed to 'a little' or 'not at all' by each of a set of somatic symptoms (stomach pain, back pain, chest pain, etc.) In assessing somatic-symptom severity on a similar scale at each time point, while also assessing a host of psychological and health indicators, the ALSWH enables the investigation of whether, over time, psychosocial factors do predict somatic-symptom severity over and above health-related factors (e.g., whether one suffers from a serious health condition).

A manuscript submission is expected in December 2022. We have used data from more recent waves to recently update the manuscript.

Conference / Presentations: *Strong evidence somatization measures based on symptom checklists are more reflective of psychological rather than physical health: Important consequences for gastroenterology research and practice (poster).*
Jones MP. United European Gastroenterology Week Conference, Vienna, Austria, 21 October 2018.

- Student:
- Ni Gao - Health Economics Research Unit, University of Aberdeen
- Other collaborators:
- Prof Mandy Ryan - Health Economic Research Unit, University of Aberdeen
 - Dr Nicolas Krucien - Health Economic Research Unit, University of Aberdeen
 - Dr Richard Norman - School of Public Health, Curtin University
 - Dr Suzanne Robinson - School of Public Health, Curtin University
- Liaison person:
- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Return to work is considered as a main indicator of cancer recovery. This approach does not consider that women are main contributors of unpaid work, and they may engage in leisure which is crucial in the recovery journey. Moreover, return to work is considered at a single time point, leaving employment trajectories unknown. To provide a comprehensive picture of cancer recovery, this study will use time allocation to link paid work, unpaid work and leisure activities. The study will investigate: (i) time allocation across paid work, unpaid work and leisure activities after cancer treatment; (ii) how time allocation impacts health service usage; and iii) dynamic changes in employment after cancer treatment.

Publications: Paid work, household work, or leisure? Time allocation pathways among women following a cancer diagnosis. Gao N, Ryan M, Krucien N, Robinson S & Norman R. *Social Science & Medicine*, 2020, 246; 112776.

Conference / Presentations: *Work or leisure: do time use patterns impact wellbeing among women living with a breast cancer diagnosis?*
Gao N, Ryan M, Harris M, Krucien N, Norman R & Robinson, S. 41st International Association for Time Use Research Conference Washington DC, United State July 2019.

Project ID: A731

Patterns in long term weight change and the incidence of adverse urogynaecological health issues in middle aged Australian women

Student:

- Gabrielle Menolotto - University of Southern Queensland

- Other collaborators:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
 - Dr Enamul Kabir - University of Southern Queensland
 - Dr Rachel King - University of Southern Queensland
- Liaison person:
- Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland

Synopsis: This project explores the relationship between long-term weight change and the incidence of urogynaecological health issues in middle aged Australian women. Obesity is a risk factor for adverse urogynaecological conditions including forms of urinary incontinence, urinary tract infection, genital prolapse, menstrual irregularity and more. In severe cases, surgical interventions are undertaken. Surgical alternatives include weight loss interventions, however research into long-term weight change remains underexplored. Middle age is a time of hormonal change for many women and by using this cohort we will explore the association between prolonged weight change and the incidence of urogynaecological symptoms, urogynaecological surgeries and menopause.

Project ID: A743	Adverse pregnancy outcomes among women in Australia
Student:	<ul style="list-style-type: none"> Habtam Bizuayehu - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle Peta Forder - Centre for Women's Health Research, The University of Newcastle Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Adverse pregnancy outcomes have been associated with various socio-demographic factors, life events, and health conditions, such as hypertension, diabetes, and asthma. About a quarter (25.8%) of pregnancies in Australia end with an adverse pregnancy outcomes, including preterm birth (8.7%), low birth weight (6.5%), caesarean section (33%), labour induction (29%), instrumental delivery (11% - 12%), and macrosomia (9.1% in gestational diabetic and 11.9% non-diabetic pregnancies). This study will generate evidence about the occurrence, recurrence, trajectory and geospatial distribution of adverse pregnancy outcomes among women in Australia. This study will assist with resource planning, clinical decision making, explaining geographic distribution and momentum/course of adverse pregnancy outcomes during the reproductively active years.</p>
Publications:	<p>Low birth weight and its associated biopsychosocial factors over a 19-year period: findings from a national cohort study. Bizuayehu HM, Harris ML, Chojenta C, Forder PM & Loxton D. <i>European Journal of Public Health</i>, 2021, 31(4); 776-783.</p> <p>Biopsychosocial factors influencing the occurrence and recurrence of preterm singleton births among Australian women: A prospective cohort study. Bizuayehu HM, Harris ML, Chojenta C, Forder PM & Loxon D. <i>Midwifery</i>, 2022, 110:103334. doi: 10.1016/j.midw.2022.103334.</p>
Conference / Presentations:	<p><i>Preterm birth and its biopsychosocial predictors: A national prospective cohort study in Australia.</i></p> <p>Bizuayehu HM, Harris ML, Chojenta C, Forder PM & Loxton D. Australian Public Health Conference 2020, Virtual Conference, 19-</p>

30 October 2020.

Low birth weight rate and predictors: A prospective study using the Australian Longitudinal Study on Women's Health.

Bizuayehu HM, Harris ML, Chojenta C, Forder PM & Loxton D
Center for African Research, Engagement and Partnerships (CARE-P) and African Postgraduate Student Association (APSA)
Conference, Online, 16 October 2020.

Project ID: A758A	Carbohydrate restriction and risk of type 2 diabetes in reproductive-aged women with and without a history of gestational diabetes.
Lead Investigator:	<ul style="list-style-type: none">• Dr Danielle Schoenaker - University of Southampton
Student:	<ul style="list-style-type: none">• Sophie Lewandowski - University of Wollongong
Other collaborators:	<ul style="list-style-type: none">• Dr Ellie D Arcy - Health Intelligence Unit, NSW Health• A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria• Dr Elizabeth Neale - University of Wollongong
Liaison person:	<ul style="list-style-type: none">• Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Women diagnosed with gestational diabetes are at increased risk of developing type 2 diabetes immediately after pregnancy. In the general population, type 2 diabetes risk can be influenced by dietary intake. Among women with and without a history of gestational diabetes who participated in the 1946-51 cohort, we found that women who restricted their intake of carbohydrates the most were at higher risk of developing type 2 diabetes during mid-life. As a follow-up of this study, the current project aims to examine if a diet low in carbohydrates is associated with development of type 2 diabetes in women in the 1973-78 cohort with and without a history of gestational diabetes, to confirm if our previous findings can be extrapolated to development of type 2 diabetes during the reproductive years.</p> <p>Progress update: As the number of women who develop type 2 diabetes during their reproductive years is relatively small, this analysis is now mostly descriptive. We describe the dietary intake of postpartum women, including among subgroups of women attempting weight loss and women diagnosed with gestational diabetes in their recent pregnancy. A manuscript has been submitted for publication.</p>

Project ID: A762	Healthy mother, sustainable nation: A study into the factors averting poor perinatal mental health.
Student:	<ul style="list-style-type: none"> • Melissa Sherrel Pereira - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Dr Nicole Reilly - University of Wollongong • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Occurrence of depression and anxiety in the perinatal period have devastating consequences on the mother, child and the immediate family. This project will investigate the preventative factors associated with poor perinatal mental health in women with a history of depression and anxiety. This project involves data linkage where data from the Medicare Benefit Schedule will be utilized to analyze access to therapy prior to and during the perinatal period. Other known risk factors for poor mental health will be controlled for in the analyses.</p>

Project ID: A766	Trends and costs in health service use related to alcohol use and behavioural risk factors among pregnant women.
Lead Investigator:	<ul style="list-style-type: none"> • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Aurelia King - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle • Penny Reeves - Hunter Medical Research Institute, The University of Newcastle • Dr Julie Depczynski - The University of Newcastle

Liaison person:

- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Unhealthy behaviours during pregnancy are the risk factors that contribute to the burden of possible adverse events for women and their babies. In order to reduce these possible outcomes from happening a focus should be placed on the dissemination of the factors that contribute to alcohol use for women during pregnancy. Our project will examine the financial burden on the health care system and the health of the mother and baby when exposed to differing levels of alcohol use through pregnancy. We are currently performing a literature review and compiling the factors for Aim 1.

Project ID: A767	Minority stress, and access to health care for non- heterosexual women
------------------	---

Student:

- Meredith Burgess - Institute for Social Science Research, University of Queensland

Other collaborators:

- Dr Francisco Perales - Institute for Social Science Research, The University of Queensland
- Prof Janeen Baxter - Institute for Social Science Research, The University of Queensland
- Prof Lisa McDaid - Institute for Social Science Research, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: This project explores how being a lesbian, bisexual, or other sexual minority woman impacts your access to healthcare in Australia. We know that sexual minority women in Australia have worse mental and physical health compared to heterosexual women, and this is often linked to the stigma and discrimination experienced by sexual minorities. In this study we ask: to what extent is this health disparity explained by poorer access to healthcare?

Project ID: A770A	Elder Abuse: Terminology, detection and prevention among older Australian women living with and without dementia
-------------------	---

Lead Investigator:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

- Student:
- Stephanie Lithgow - The University of Newcastle
- Other collaborators:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
 - Kim Colyvas - School of Mathematical & Physical Sciences, University of Newcastle
 - Dr Elizabeth Spencer - School of Humanities & Social Sciences, The University of Newcastle
 - Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Study 1: 'Believe me I'm awake': Dementia and the propositional density of written language among older women in the Australian Longitudinal Study on Women's Health (ALSWH). Synopsis: Women living with dementia can be supposed to have lost capacity to control life choices: living arrangements, activities, medical treatments, and management of assets. With an increasing focus on abuse of the human rights of older people, suggested protective solutions include capacity assessment and documented planning for future decisions. This study examines the written language of older women 1) with no dementia, 2) with a confirmed diagnosis of dementia and 3) with dementia diagnosed within 3 years (lagged diagnosis) via external linked data, using propositional density (a linguistic measure) as a marker of cognitive decline. Propositional density has been identified as a measure sensitive to cognitive decline in other studies of older age. This new knowledge is clinically useful, and may lead to a new direction in the development of more sensitive capacity assessment tools and earlier detection of dementia, which will allow for proactive medical intervention as well as life planning.

Study 2: The terminology of elder abuse among older Australian women, living with and without dementia. Synopsis: Accurate detection is fundamental to addressing elder abuse. Globally, women have a higher likelihood of experiencing elder abuse than men, and are more likely to report it, but they may not use direct terminology like 'abuse'. Dementia, a risk factor for abuse, may further inhibit women from overtly reporting. This study will qualitatively examine the terminology of abuse among older women, including those living with dementia, from written comments in the ALSWH. It will also examine their responses on survey items relating to abuse and vulnerability to abuse. Findings will contribute to the evaluation of current methods

of elder abuse detection for older women living with and without dementia, and inform possible education programs for health professionals and others working with older women.

Conference /
Presentations:

The terminology of abuse among older Australian women from the Australian Longitudinal Study on Women's Health.

Lithgow S. National Elder Abuse Conference, Lithgow S. 14-15 February 2022.

Project ID: A772	Patterns of long-term antidepressant use
Lead Investigator:	<ul style="list-style-type: none"> • Dr Maria Donald - School of Public Health, The University of Queensland
Student:	<ul style="list-style-type: none"> • Edgar Poon - School of Pharmacy, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Dr Samantha Hollingworth - School of Pharmacy, The University of Queensland • Prof Jayne Lucke - School of Public Health, The University of Queensland • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • Prof Mieke van Driel - The University of Queensland • Dr Johanna Lynch - The University of Queensland • Dr Zaimin Wang - Faculty of Medicine, the University of Queensland • Dr Treasure McGuire - School of Pharmacy, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Antidepressants are an effective treatment for acute major depressive disorders but they are often also used for mild or moderate depression for which evidence of effectiveness is lacking. An emerging body of research suggests that treatment discontinuation be considered for some long-term users of antidepressants, especially those with mild to moderate depression treated in the community. Australia has the second highest antidepressant prescribing rate in the world and the average duration of treatment is considerably longer than the guideline-recommended six to twelve months. This suggests that attempts to cease antidepressants for a number of patients are either not occurring as frequently as guidance recommends, and/or attempts</p>

are unsuccessful. Our study aims to better understand the patterns of long-term antidepressant use.

Project ID: A774A	The impact of maternal adverse childhood experiences and violence in adulthood on women's health, parenting, and child outcomes
Lead Investigator:	<ul style="list-style-type: none"> • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Tahir Ahmen Hassen - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Dr Nicole Reilly - University of Wollongong • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Isabelle Barnes - Centre for Women's Health Research, The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle • Prof Ben Mathews - Queensland University of Technology
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Research has shown that intimate partner violence adversely impacts on the physical and mental health of women over the life course and can have deleterious effects on outcomes for children exposed to this violence. Studies have also demonstrated a generational effect on offspring of mothers who experienced adverse childhood experiences (ACES) while growing up. This project will align these fields of research by examining the potential cumulative impact of maternal exposure to adverse childhood experiences and violence across the life course on outcomes for women in the 1973-1978 cohort and their children.</p>
Project ID: A783	Effect of medication reviews on patient and health outcomes among older women

Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Kaeshaelya Thiruchelvam - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Syed Hasan - University of Huddersfield • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle • A/Prof Therese Kairuz - The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>In Australia, the Residential Medication Management Review (RMMR) is provided for people in aged care facilities, and the Domiciliary Medication Management Review (DMMR) is provided for community-dwelling older people. These services are remunerated by the Australian government and have been shown to improve medication use and patient-reported and health outcomes. This study seeks to determine medication use, and the uptake and impact of medication reviews among women of the ALSWH cohort of 1921-1926, and how they relate to overall medication use, particularly the use of inappropriate medications.</p>
Publications:	<p>Prevalence and association of continuous polypharmacy and frailty among older women: A longitudinal analysis over 15 years. Thiruchelvam K; Byles J, Hasan SS, Egan N & Kairuz T. <i>Maturitas</i>, 2021, 146; 18-25.</p> <p>Frailty and potentially inappropriate medications using the 2019 Beers Criteria: Findings from the Australian Longitudinal Study on Women's Health (ALSWH). Thiruchelvam K, Byles J, Hasan SS, Egan N, Kairuz T. <i>Aging Clinical and Experimental Research</i>, 2021, 33(9):2499-2509.</p> <p>Residential Medication Management Reviews and continuous polypharmacy among older Australian women. Thiruchelvam K, Byles J, Hasan SS, Egan N & Kairuz T. <i>International Journal of Clinical Pharmacy</i>, 2021, 43(6):1619-1629.</p>

Common combinations of medications used among oldest-old women: A population-based study over 15 years. Thiruchelvan K, Byles J, Hasan SS, Egan N, Cavenagh D & Kairuz T. *Aging Clinical and Experimental Research*, 2020, 33; 1919-1928.

Impact of medication reviews on potentially inappropriate medications and associated costs among older women in aged care. Thiruchelvam K, Byles J, Hasan SS, Egan N & Kairuz T. *Research in Social and Administrative Pharmacy*, 2022, 18(10):3758-3765.

Home Medicines Review and frailty among community-dwelling older women. Thiruchelvam K, Byles J, Hasan SS, Egan N & Kairuz T. *International Journal of Pharmacy Practice*, 2021, 29(6); 548-555.

Conference /
Presentations:

Uptake of medication reviews among older women in the ALSWH (poster presentation).

Thiruchelvam K, Hasan SS, Wong PS, Byles J & Kairuz T. 52nd AAG Conference, Sydney, NSW, 5-8 November 2019.

Project ID: A796

Dental health in Australia - Assessing the participatory, utilisation and health outcomes of the Chronic Disease Dental Scheme

Lead Investigator:

- Prof Jane Hall - Centre for Health Economic Research and Evaluation, University of Technology Sydney

Studentt:

- Siobhan Dickinson - Centre for Health Economics Research and Evaluation, University of Technology Sydney

Other collaborators:

- Prof Kees Van Gool - Centre for Health Economics Research and Evaluation, University of Technology Sydney
- Dr Maryam Naghsh Nejad - Centre for Health Economics Research and Evaluation, University of Technology Sydney

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis:

With calls to expand Medicare to include dental services and the noted fiscal costs associated with such an expansion, it is important to understand what the outcomes might be. The addition of the Chronic Disease Dental Scheme (CDDS) on Medicare between 2007 and 2013 represented an expansion of public health insurance to cover dental services for those with a chronic disease. This study will seek to identify the drivers of program participation and whether the CDDS increased the utilisation of dental services for the intended population.

This study is important to informing future policy in relation to any proposed universal dental health scheme.

Project ID: A799A	Pregnancy planning and risk of adverse pregnancy and birth outcomes
Lead Investigator:	<ul style="list-style-type: none"> • Dr Danielle Schoenaker - University of Southampton
Student:	<ul style="list-style-type: none"> • Julia Dixon - University of Wollongong • Dr Amie Steel - Health Services Research, University of Technology Sydney • Dr Ellie D Arcy - Health Intelligence Unit, NSW Health • Dr Elizabeth Neale - University of Wollongong
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Preconception care addresses health and lifestyle behaviours of women prior to pregnancy, and is increasingly recognised as an essential health service to achieve healthy outcomes for women and their children. While previous studies have shown that better health and lifestyle prior to pregnancy are associated with better health outcomes during and after pregnancy, there remain gaps in our knowledge on the benefits and implementation of preconception care. To better inform the design of future preconception interventions, this study aims to examine the proportion of women planning a pregnancy, their preconception health and lifestyle behaviours, and the relationships of these with subsequent pregnancy and birth outcomes.</p>
Conference / Presentations:	<p><i>How do women with overweight and obesity prepare for pregnancy?</i> Schoenaker D and Steel A. Event co-hosted by the World Health Organisation and the International Council of Women and the Communications Coordination Committee for the United Nations: Advancing Women's Health and Well-Being: Focus on Non-Communicable Diseases (NCDs), UN Headquarters Schoenaker D and Steel A. 12 March 2020.</p>
Project ID: A806	The role of healthy and unhealthy dietary patterns on depression in Australian women
Student:	<ul style="list-style-type: none"> • Dr Megan Lee - Bond University

- Other collaborators:
- A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria
 - Dr Joanne Bradbury - Southern Cross University
 - A/Prof Jacqui Yoxall - Southern Cross University
 - A/Prof Sally Sargeant - Southern Cross University
 - Dr Alison Bowling - Southern Cross University
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: The role of nutrition in chronic lifestyle diseases such as cardiovascular disease and diabetes is well known. However, the role of nutrition in mental health is lesser known. In Australia, over 3 million people live with the symptoms of depression, with more women experiencing symptoms than men. Research suggests that dietary patterns rich in fresh fruit, vegetables, wholegrains, nuts, seeds, legumes, lean meat and water may protect against depressive symptoms and that dietary patterns high in processed, refined and sugary foods could contribute to the symptoms of depression. This project aims to examine the relationship between Australian women's dietary patterns and depression.

Publications: Is dietary quality associated with depression? An analysis of the Australian longitudinal study of women's health data. Lee M, Bradbury J, Yoxall J & Sargeant S. *British Journal of Nutrition*, 2022; 1-8. doi: 10.1017/S0007114522002410

Project ID: A807	Trajectories of psychological wellbeing in women with endometriosis
------------------	--

- Lead Investigator:
- Prof Kerry Sherman - Macquarie University
- Student:
- Carla Sullivan-Myers - Macquarie University
- Other collaborators:
- Dr Alissa Beath - Macquarie University
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Despite a recent rapid increase in research concerning aetiology and treatment of endometriosis, there has been limited focus on understanding the experiences of women diagnosed with this condition. In particular, there is a dearth of research investigating the psychological impact of endometriosis over time. Prior analyses of

data from the Australian Longitudinal Study on Women's Health has identified a high prevalence of psychological distress amongst women with endometriosis. Yet, no study to date has investigated psychological distress over time. As endometriosis is a chronic and cyclical condition, it is expected that as the condition progresses or changes, so too will the psychological health of those affected. Understanding how psychological distress changes over time, and describing the potential patterns of distress, will enable us to understand the experiences of this population more thoroughly. To address this gap in the literature, we aim to describe trajectories of psychological distress in women with endometriosis who have participated in the ALSWH.

Project ID: A810	Incidence and predictors of Neonatal Near Miss, and its impact on parenting and child health outcomes in Australia
Lead Investigator:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Tahir Ahmen Hassen - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Nick Egan - Centre for Women's Health Research, The University of Newcastle • A/Prof Koert de Waal - Department of Neonatology John Hunter Children's Hospital
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The concept of neonatal near miss (NNM), a condition where a newborn has nearly died but survived, has been proposed as a tool for assessment of quality of care in neonates who suffered any life-threatening condition. Research from other settings indicates that different factors contribute to the incidence of NNM and children with NNM history are at risk of encountering various health and health related problems during their course of life. Research also has indicated that having a high-risk infant poses significant family, societal and economic impacts; although this relationship is yet to be investigated with NNM. This project will align these areas of research</p>

by investigating the incidence and predictors of NNM, and its impact on parenting and child health outcomes.

- Publications:
- The association between birth weight and proxy-reported health-related quality of life among children aged 5-10 years old: A linked data analysis. Hassen TA, Chojenta C, Egan N & Loxton D. *BMC Pediatrics*, 2021, 21(1); 1-8.
- The association between the Five-Minute Apgar Score and neurodevelopmental outcomes among children aged 8-66 months in Australia. Hassen TA, Chojenta C, Egan N & Loxton D. *International Journal of Environmental Research and Public Health*, 2021, 18(12); 6450.
- Determinants of neonatal near miss in Australia: A multilevel analysis. Hassen TA, Chojenta C, Egan, N & Loxton D. *Early Human Development*, 2021, 156; 105343.

Project ID: A813A	Dietary macronutrient intake and risk of cardiovascular disease in women
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Sarah Zaman - The University of Sydney
Student:	<ul style="list-style-type: none"> • Anushriya Pant - University of Sydney
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • Sarah Gribbin - Monash University • Dr Joanne Enticott - Monash Centre for Health Research and Implementation, Monash University • Dr Eleanor Pei Hua Thong - Monash Centre for Health Research and Implementation, Monash University • Simone Marschner - Faculty of Medicine and Health, The University of Sydney
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Heart disease is the number one killer of Australian women, claiming more than 10,000 lives per year. One way to reduce heart disease is through dietary interventions. Historically, a low-fat diet has been recommended, however, recent evidence has not linked this with higher survival. Diets modifying the amount/type of carbohydrates have become increasingly popular for weight loss and control of diabetes. However, the effects of changing carbohydrate and fat intake on the risk of heart disease in Australian women is not well known. This study aims to investigate if amount, proportion and types of carbohydrate and fat intake in the diet influences the chance of developing heart disease later in life.

The next step to this project is looking at aim 3: Does the type (whole food versus processed and ultra-processed food) of carbohydrate intake as a percentage of daily intake predict incident cardiovascular disease or death. We are currently working on performing logistic regression models to look at the association between ultra-processed food and incident cardiovascular disease or death. We have already calculated the percentage of daily intake of ultra-processed food and divided participants using the ALSWH dataset into quintiles. The baseline characteristics and descriptives are in progress too.

Publications: Association of carbohydrate and saturated fat intake with cardiovascular disease and mortality in Australian women. Gribbin S, Enticott J, Hodge AM, Moran L, Thong E, Joahm A & Zaman S. *Heart*, 2022, 108(12); 932-939.

Conference / Presentations: *Dietary carbohydrate and not saturated fat is associated with cardiovascular disease in a cohort of Australian women.* Gribbin S, Enticott J, Hodge A, Joham A & Zaman S. 69th Annual Scientific meeting of the Cardiac Society of Australia and New Zealand (CZANZ) Adelaide, SA, 5-8 August 2021.

Project ID: A815	The interface between Residential Aged Care Facilities (RACF) and Acute Hospital Care for Australian women living in RACF, and possible variables that influence the interface
------------------	---

Lead Investigator:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Student:

- Sarwoko Andi Pramono - University of Newcastle

Other collaborators:

- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: The aim of this research is to investigate the interface between RACF and acute health care facilities (including emergency transfer), and the outcomes of the transfer upon Australian women living in RACF. The study also aims to identify factors that may influence any possible reduction of unnecessary transfers. The study will examine longitudinal data from ALSWH which is linked to external data. This research will provide important evidence that will assist in quality improvement activities, planning and policy development. It will identify opportunities to reduce unnecessary transfer which may consequently reduce potential adverse impacts of transfer that may influence health care service related costs such as transfer, hospitalisation, treatment and medication costs.

Project ID: A818	An examination of low social support during pregnancy and its effect on mental health, quality of life and healthy lifestyle behaviours of pregnant women
------------------	--

Student:

- Asres Bedaso - University of Technology Sydney

Other collaborators:

- Prof Jon Adams - School of Public Health, University of Technology Sydney
- Prof David Sibbritt - Faculty of Health, University of Technology Sydney
- Dr WenBo (Penny) Peng - Faculty of Health, University of Technology Sydney

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Pregnancy is one of the important natural processes in women in which many biological, physiological and psychosocial changes are experienced. It is accompanied by hormonal changes and can represent a time of increased risk for the occurrence of behavioural and mental health problems. Several studies have shown that depressive symptoms, anxiety, and stress during pregnancy are risk factors for adverse outcomes for women and infants. One major risk factor affecting maternal well-being and reason for the occurrence of negative birth outcomes is lack of social support during pregnancy (LSS). LSS during pregnancy worsens the psychological health of the pregnant woman and negatively affects her healthy lifestyle behaviours. It has been suggested that effective SS, mainly providing emotional and instrumental support, is protective by minimizing the

impact of stress on the emotional well-being of the mother. This prospective cohort study will examine risk factors for low social support during pregnancy and its effect on mental health, quality of life and healthy lifestyle behaviours of pregnant women.

We have published three papers on this project. In addition to the above-mentioned two papers, the published article indicated below is also part of the project. 1. Bedaso, A., Adams, J., Peng, W. et al. The mediational role of social support in the relationship between stress and antenatal anxiety and depressive symptoms among Australian women: a mediational analysis. *Reprod Health* 18, 250 (2021). <https://doi.org/10.1186/s12978-021-01305-6>. Also, the last paper from this project is under manuscript production. The title for this last paper is "The direct and mediating effect of social support on health-related quality of life during pregnancy among Australian women.

Publications: Prevalence and determinants of low social support during pregnancy among Australian women: A community-based cross-sectional study. Bedaso A, Adams J, Peng W & Sibbritt D. *Reproductive Health*, 2021, 18; 158.

The association between social support and antenatal depressive and anxiety symptoms among Australian women. Bedaso A, Adams J, Peng W & Sibbritt D. *BMC Pregnancy and Childbirth*, 2021, 21(1), 708. doi: 10.1186/s12884-021-04188-4.

The mediational role of social support in the relationship between stress and antenatal anxiety and depressive symptoms among Australian women: A mediational analysis. Bedaso A, Adams J, Peng W. et al. *Reproductive Health*, 2021, 18(1):250. doi: 10.1186/s12978-021-01305-6.

Project ID: A821	Modifiable risk factors for cardiovascular disease among women with and without a history of hypertensive disorders of pregnancy
Lead Investigator:	<ul style="list-style-type: none"> • Dr Melinda Hutchesson - The University of Newcastle
Student:	<ul style="list-style-type: none"> • Ker Nee Ding - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Amanda Patterson - College of Health, Medicine and Wellbeing, The University of Newcastle • Prof Clare Collins - College of Health, Medicine and Wellbeing, The University of Newcastle

- Dr Tracy Schumacher - Department of Rural Health, The University of Newcastle
 - Dr Rachael Taylor - The University of Newcastle
 - Dr Vanessa Shrewsbury - The University of Newcastle
 - Dr Lisa Vincze - Griffith University
 - Kaylee Slater - The University of Newcastle
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Women with a history of hypertensive disorders of pregnancy (HDP) (i.e., pre-eclampsia, gestational hypertension and chronic hypertension) are at higher risk of cardiovascular disease (CVD). Little is known about the rates of modifiable risk factors for CVD (i.e., unhealthy diet, physical inactivity/sedentary behaviour, smoking, excessive alcohol intake, excess body weight and poor mental health) following HDP. Our aim is to: a) describe the rates of individual and multiple modifiable risk factors for CVD among women following a HDP, and b) compare the odds of individual and multiple modifiable risk factors for CVD between women with and without a history of HDP.

Project ID: A823	Impact of the residential greenspace on the mental health of the Australian women
------------------	--

- Student:
- Dr Tafzila Akter Mouly - School of Public Health, The University of Queensland
- Other collaborators:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
 - A/Prof Luke Knibbs - Honorary Principal Fellow, The University of Queensland
 - Prof Mark Nieuwenhuijsen - Barcelona Institute for Global Health
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: This project will examine the effects of neighbourhood greenspace on the mental health of Australian women. Research on greenspace and mental health has been driven by an emerging interest in the last decade. However, most of the evidence came from cross-sectional studies. Moreover, several studies used historical environmental exposure data, which are not always spatially and temporally well-

aligned with a participant's residential address(es). ALSWH has mental health data collected by regular surveys as well as geocoded residential addresses. These data will allow investigation of the longitudinal association between spatially and temporally aligned residential greenspace and mental health in a large, national cohort of Australian women.

Conference /
Presentations:

Impact of residential greenspace on the mental health of Australian women (poster presentation).

Mouly TA, Knibbs L & Mishra G Queensland Women's Health Forum 2021, Brisbane, May 2021.

Project ID: A829A

Study 2-Relationship between diet quality index and incident NCDs: 1973-78 cohort [Part of the student's PhD project; Dietary exposure and NCD mortality and multimorbidity]

Lead Investigator:

- A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle

Student:

- Hlaing Hlaing Hlaing - The University of Newcastle

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle
- Prof Erica James - School of Medicine and Public Health, The University of Newcastle
- Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Unhealthy diet has been identified as a major modifiable risk factor for prevention of non-communicable diseases (NCDs). Diet quality, measuring a range of foods, food groups, and/or nutrients, has been widely applied in studies relating NCD mortality. Limited work currently exists regarding the investigation of unhealthy diet and multimorbidity, defined as the presence of two or more chronic medical conditions. Given that NCD mortality and multimorbidity increase with age, especially among women, this program of work aims to understand the association between diet quality and NCDs (including multimorbidity) and all-cause mortality among the 1973-78 ALSWH cohort.

Project ID: A830A	Longitudinal model building for diet quality and incident NCDs: 1973-78 cohort (Study 3)
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle
Student:	<ul style="list-style-type: none"> • Hlaing Hlaing Hlaing - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle • Prof Erica James - School of Medicine and Public Health, The University of Newcastle • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>There is rising non-communicable disease (NCD) prevalence with advancing age, with women disproportionately affected, and almost half of all Australian women with NCDs are in the window of reproductive age. Longitudinal analysis testing the association between diet quality (DQ) and NCDs is necessary to (i) improve the quality of methods used in studies of diet-disease relationships, and (ii) design future effective dietary intervention for NCD prevention. Therefore, this study aims to examine the impact of time-varying covariates and longitudinal analysis of diet as a predictor of NCDs in women from the ALSWH born between 1973-78.</p>

Project ID: A834	Substance use in the perinatal period: The impact upon perinatal care, physical health, mental health, pregnancy and birth outcomes and how risk factors moderate any effects
Lead Investigator:	<ul style="list-style-type: none"> • Dr Kylie Bailey - Psychology Department, University of Newcastle
Student:	<ul style="list-style-type: none"> • Natalie Sinclair - Macquarie Drug and Alcohol Service, Mid North Coast Area Health
Other collaborators:	<ul style="list-style-type: none"> • Dr Elizabeth Stojanovski - School of Mathematical & Physical Sciences, University of Newcastle • Dr Julia Dray - The University of Newcastle • Dr Beth Mah - Wandiyali

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis: Understanding the reasons why women of childbearing age use illicit substances is essential in planning what care this patient population needs. This project will explore three areas in the 1973-1978 and 1989-1995 cohorts in women who report pregnancy/birth. Initially the rates of reported substance use in the last year, among women in the perinatal period (defined as pregnant or in the first postnatal year will be determined). Associations between recent substance use and physical health, mental health and perinatal outcomes will be established. The contribution that various risk factors provide to any association will be analysed.

Project ID: A838	Rheumatoid arthritis in Australian women
------------------	---

Lead Investigator:

- Prof Ranjeny Thomas - The University of Queensland

Student:

- Dr Louise Koller-Smith - The University of Queensland

Other collaborators:

- Prof Lyn March - Institute of Bone and Joint Research, Faculty of Medicine and Health, The University of Sydney
- A/Prof Tracy Comans - School of Public Health, The University of Queensland
- Dr Ahmed Mehdi - The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: The inflammatory autoimmune disease, rheumatoid arthritis (RA) is currently incurable and affects 23 million people worldwide. An effective intervention would minimise the need for ongoing treatment beyond the first transient symptoms in people at risk, preventing their progress to full-blown disease. To do this, we need to estimate the size of the at-risk population and the RA risk profile in Australia. Currently all estimates are self-reported, which over-estimates verified RA. This project will estimate the prevalence, incidence and risk factors for RA in Australian women in the ALSWH.

Our findings to date:

Prospectively collected data from 2005-2015 from the Australian Longitudinal Study on Women's Health were linked with administrative data from the Pharmaceutical Benefit Scheme (PBS), Medicare Benefits Schedule (MBS) and hospital admissions. Self-

reported RA cases were selected. The self-reported group was refined by excluding those who had never had a rheumatoid factor test performed under the MBS and excluding individuals with psoriasis, inflammatory bowel disease and other specified rheumatic conditions, ascertained by self-reported or PBS dispensed medications or ICD-10 coded hospital admissions. The remaining RA cases were compared to the excluded cases to determine factors associated with accuracy of self-report.

Results: The 25,317 respondents were women aged 37-84 years residing in Australia. Of these, 1,367 self-reported RA (prevalence 5.4%). 962 individuals were excluded by the refinement methods, leaving 405 in the refined RA case group (prevalence 1.6%). Compared with respondents excluded by the refinement process, the refined case group was more likely to be younger, privately insured, to have seen any specialist in the last 12 months, to report poor access/barriers to specialist review, to live rurally or remotely and less likely to have a healthcare card.

Conclusion: Addition of medication, admission and MBS data to self-reported RA is likely to improve the accuracy of estimation of RA prevalence in Australia. Greater accuracy of self-report appears to be associated with younger age, private insurance status, better specialist access and lower geographic isolation. This case-finding method could be used in future population studies of RA and in Australian population health monitoring.

Conference /
Presentations:

Estimating the true prevalence of rheumatoid arthritis in Australian women (poster presentation).

Koller-Smith L, Medi A, March L, Mishra G, Tooth L & Thomas R. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.

Estimating the prevalence of rheumatoid arthritis in Australia (poster presentation).

Koller-Smith L. Australian Rheumatology Conference ASM 2022, Perth, WA, 6-9 May 2022.

Project ID: A846

Stressful life events, diet quality and incident cardiometabolic disease

Lead Investigator:

- Dr Sabita Soedamah-Muthu - Department of Medical and Clinical Psychology, Tilburg University

Student:	<ul style="list-style-type: none"> Eline van Bennekom - Wageningen University
Other collaborators:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland Prof Marianne Geleijnse - Wageningen University and Research
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	Existing literature supports the finding that diet and stress are associated with cardiometabolic disease, defined as CVD and diabetes. However, studies were often performed in men, although the onset and the course of illness differ between men and women. Symptoms of CVD in women are less specific and in both CVD and diabetes risk factors have different effects on men and women. Furthermore, animal studies showed interaction effects between diet and stress influencing factors related to metabolic disease. The current study will further elucidate the interaction between stressful life events and diet and its influence on cardiometabolic disease in women.

Project ID: A853	Alcohol intake in middle-aged Australian women and access to primary health care services
------------------	--

Student:	<ul style="list-style-type: none"> Suzannah Bownes - University of Notre Dame
Other collaborators:	<ul style="list-style-type: none"> Dr Craig Smith - University of Notre Dame Australia Dr Alexa Seal - University of Notre Dame Australia A/Prof Catherine Harding - University of Notre Dame Australia
Liaison person:	<ul style="list-style-type: none"> Dr Amy Anderson - Centre for Women's Health Research, The University of Newcastle
Synopsis:	The purpose of this project will be to explore the relationship between middle-aged Australian women who drink alcohol above the recommended amount and access to primary health care services. We will analyse Survey 8 of the 1973-78 cohort to identify if and how frequently these women access primary health care services. The assumption being that if general practitioners are to opportunistically screen and undertake appropriate interventions with these women, we must first establish whether or not they attend primary health care.

Project ID: A1235	Trajectories of physical activity, falls and consequences of falls from middle age to older age
Student:	<ul style="list-style-type: none"> • Wing Kwok - University of Sydney
Other collaborators:	<ul style="list-style-type: none"> • Prof Cathie Sherrington - The University of Sydney • Dr Marina Pinheiro - University of Sydney • Dr Juliana Oliveira - University of Sydney • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • Dr Saman Khalatbari-Soltani - University of Sydney
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>The prevalence of falls increases from mid-life to older adulthood. The relationship between ongoing physical activity and sitting spent in middle age and subsequent falls and consequences of falls is not clear. This study aims to examine the relationship between 1) physical activity, 2) sitting time, 3) sitting time by different level of physical activity with subsequent falls, and describe patterns of physical activity level from middle age to older age and the association with 1) self-reported falls and injurious falls 2) falls events involving care in emergency departments and hospitals 3) consequences and 4) health care utilisation including costs.</p>
Conference / Presentations:	<p><i>Falls and physical activity in Australian older women.</i> Kwok WS, Byles JE, Pinheiro MB, Oliveira JS, Dolja-Gore X, & Sherrington C. 19th National Conference of Emerging Researchers in Ageing, Kwok WS, Byles JE, Pinheiro MB, Oliveira JS, Dolja-Gore X, & Sherrington C. 4 November 2021.</p> <p><i>Are there any differences in falls, injurious falls and physical activity participation in Australian women between two different generations?</i> Kwok WS, Byles JE, Pinheiro MB, Oliveira JS, Dolja-Gore X & Sherrington C. Australia New Zealand Falls Prevention Conference, Virtual, 1-3 December 2021.</p> <p><i>Falls and physical activity in older Australian women from two different generations.</i> Kwok W. Safety 2022: 14th World Conference on Injury Prevention</p>

& Safety Promotion. 27-30 November 2022.

Associations between different amounts and types of physical activity (PA) and injurious falls in older Australian women (poster presentation).

Kwok W. IAGG 2022: 22nd World Congress of Gerontology and Geriatrics Virtual, 12-16 June 2022.

Are there any differences in falls, physical activity (PA) and the associations between PA and falls in older women from two different generations?

Kwok W. IAGG 2022: 22nd World Congress of Gerontology and Geriatrics. Virtual, 12-16 June 2022.

Understanding physical activity and falls in Australian women.

Kwok W. NSW Fall Prevention and Healthy Ageing Network Annual Forum, Sydney, NSW, 27 May 2022.

Project ID: A1242	Lifestyle trajectories and risk of dementia
Student:	<ul style="list-style-type: none">• Sara Dingle - Deakin University
Other collaborators:	<ul style="list-style-type: none">• Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle• Dominic Cavenagh - Centre for Women's Health Research, The University of Newcastle• A/Prof Susan Torres - Deakin University• Prof Robin Daly - Deakin University• Dr Catherine Milte - Deakin University• A/Prof Steven Bowe - Faculty of Health, Deakin University
Liaison person:	<ul style="list-style-type: none">• Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	Several modifiable lifestyle behaviours (e.g., diet, physical activity, alcohol consumption, smoking and social interaction) have been shown to influence dementia risk, but limited research has taken into consideration the clustering of these risk behaviours in this association. The purpose of this study is to apply advanced statistical modelling to consider potential clustering effects and examine how lifestyle trajectories impact on risk of dementia.

Project ID: A1254	Exploring the experience of utilization rates of cardioprotective medications in Australian women with a history of cancer
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Aaron Sverdllov - University of Newcastle
Student:	<ul style="list-style-type: none"> • Joshua Bennetts - University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Doan Ngo - University of Newcastle • Dr Jennifer White - University of Newcastle • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Modern cancer therapies improve survival rates for many cancers. Cardiovascular disease (CVD) rates and risk factors increase in cancer patients and survivors compared with the general population. CVD emerged as a leading cause of long-term morbidity and mortality in this population. A cross-sectional-observational study of 333 admissions to John Hunter Hospital (JHH) cardiology unit between July 2018-January 2019 identified cardioprotective therapies, especially statins and antiplatelet agents, were underutilized in patients with cancer history compared with patients without cancer and comparable cardiovascular risk factors. This study will explore the experience of use of cardioprotective medications in women with cancer histories compared to those with none on a larger, more representative scale.</p>
Project ID: A1268	Text mining on qualitative ALSWH data
Lead Investigator:	<ul style="list-style-type: none"> • Dr Jananie William - Australian National University
Student:	<ul style="list-style-type: none"> • Eva Zhang - Australian National University
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Peta Forder - Centre for Women's Health Research, The University of Newcastle • Dr Jananie William - Australian National University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Qualitative data collected through ALSWH surveys have been found to contain valuable information but it is difficult to access these data quickly and easily. This project will investigate automated text-mining, and specifically, the use of statistical learning techniques to better utilise ALSWH qualitative data. We will explore different types of statistical learning algorithms and assess them for both accuracy and automation within the context of the longitudinal survey data. We aim to select a number of methods that produce the best results in terms of accuracy and automation when it comes to interpreting the qualitative longitudinal data.

Project ID: A1278	Optimism as a potential protective factor for mental health outcomes following sexual assault
-------------------	--

- | | |
|----------------------|--|
| Student: | <ul style="list-style-type: none"> • Rebecca Fellowes - University of Newcastle |
| Other collaborators: | <ul style="list-style-type: none"> • A/Prof Penny Buykx - University of Newcastle • A/Prof Sally Hunt - The University of Newcastle • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle |
| Liaison person: | <ul style="list-style-type: none"> • Peta Forder - Centre for Women's Health Research, The University of Newcastle |

Synopsis: Whilst sexual assault is associated with a range of detrimental outcomes, many survivors also experience personal growth following the traumatic experience. A range of cross-sectional studies have demonstrated a positive association between increased optimism and improved mental health in sexual assault survivors specifically. However, high-quality longitudinal research investigating this relationship is still lacking. As such, using data from the 1946-1951 cohort, the present research will explore the relationship between sexual abuse, victims' level of dispositional optimism and their long-term mental health outcomes. We primarily aim to explore whether optimism protects against detrimental mental health outcomes following sexual abuse.

Project ID: A1280	Socio-demographic characteristics, quality of life, and health-related behaviours of childless women from young adulthood to middle age
-------------------	--

- | | |
|----------|---|
| Student: | <ul style="list-style-type: none"> • Chuyao Jin - Australian Women and Girls' Health Research Centre, The University of Queensland |
|----------|---|

- Other collaborators:
- Dr Xiaolin Xu - Zhejiang University
 - A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
 - Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Childlessness, either by choice (voluntarily childless) or as a consequence of biological or other constraints (involuntarily childless), is increasing in high-income countries and contributes to the fertility decline. The increase in childlessness indicates the importance of exploring the consequences of this social change. Previous studies mainly used cross-sectional designs and focused on mental health among older women with fertility issues. In the current research, ALSWH (1973-78) cohort data will be used to understand the socio-demographic characteristics, quality of life, and health-related behaviours of women in the childless group, from young adulthood to middle age.

Project ID: A1282	Longitudinal analysis of the relationship between social health and health care utilization among older women from culturally and linguistically diverse communities
-------------------	---

- Lead Investigator:
- A/Prof Ding (Melody) Ding - The University of Sydney
- Student:
- Neta HaGani - University of Sydney
- Other collaborators:
- A/Prof Ding (Melody) Ding - The University of Sydney
 - Prof Benjamin Smith - University of Sydney
 - Prof Dafna Merom - Western Sydney University
 - Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
- Liaison person:
- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: Previous studies have reported associations between social health and health care utilization. However, these associations were not consistent. The current study will examine the association between social support, loneliness and health care utilization. This study will also examine differences between women from culturally and linguistically diverse communities. The findings of this study will contribute the understanding of the long-term effect of loneliness and

social support on health care utilization. It will provide knowledge that is necessary to improve the screening and treatment of older women in the health care system and to prevent unnecessary health care use.

Project ID: A1283	Resilience after surgery in older women
Lead Investigator:	<ul style="list-style-type: none"> • Dr Geeske Peeters - Radboud University Medical Centre (Radboudumc)
Student:	<ul style="list-style-type: none"> • Isa de Munck - Radboud University Medical Centre
Other collaborators:	<ul style="list-style-type: none"> • Dr Rene Melis - Radboud University Medical Centre • Dr Geeske Peeters - Radboud University Medical Centre (Radboudumc)
Liaison person:	<ul style="list-style-type: none"> • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
Synopsis:	<p>Resilience is the individual's ability to recover from a stressor, e.g., an illness or surgery. Resilience tends to be lower in older, frailer individuals with multiple diseases. Insufficient ability to recover from treatment is a contra-indicator for treatment. To date, physical resilience has mainly been investigated in small patient groups in clinical settings. Little is known about the public health impact of poor physical resilience. The aim of this body of work is to examine physical resilience from a public health perspective. We will examine the definition and prevalence of poor physical resilience in older women.</p>

Project ID: A1294	Development of diabetes and cardiovascular events following gestational diabetes or pre-eclampsia: An Australian mothers data linkage project
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Sarah Zaman - The University of Sydney
Student:	<ul style="list-style-type: none"> • Simone Marschner - Faculty of Medicine and Health, The University of Sydney
Other collaborators:	<ul style="list-style-type: none"> • Prof Ngai Wah Cheung - Westmead Applied Research Centre, The University of Sydney • Prof Clara Chow - Westmead Applied Research Centre, The University of Sydney • Peta Forder - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Peta Forder - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Assessing the association of novel female risk factors such as pre-eclampsia, gestational diabetes, breast feeding and premature menopause on clinical outcomes of diagnosis of diabetes and cardiovascular outcomes that are currently not included in risk factor calculators. Healthy lifestyle factors such as diet and exercise will be accounted for in the analysis and we will provide further evidence of their association with diagnosis of diabetes and cardiovascular outcomes.

2.2 Completed student projects

Project ID: A537	The prevalence and characteristics of consultation with a massage therapist among young and middle-aged women
Lead Investigator:	<ul style="list-style-type: none"> Prof David Sibbritt - Faculty of Health, University of Technology Sydney
Student:	<ul style="list-style-type: none"> Suzy Ladanyi - University of Technology Sydney
Other collaborators:	<ul style="list-style-type: none"> Prof Jon Adams - School of Public Health, University of Technology Sydney
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Massage is a popular form of Complementary and Alternative Medicine (CAM). It has become increasingly popular among women and used for a variety of physical and psychological conditions. However, there has been no critical analysis on the prevalence of massage use or the characteristics of massage users as a single treatment modality for women in Australia. The proposed study will determine the prevalence of young and mid-aged women, and analyse the use of massage in relation to demographic data, physical and mental health status and health services factors among this population.</p>
Publications:	<p>Healthcare practitioner utilisation for back pain, neck pain and/or pelvic pain during pregnancy: An analysis of 1,835 pregnant women in Australia. Sibbritt D, Ladanyi S & Adams J. <i>International Journal of Clinical Practice</i>, 2016, 70(10); 825-831.</p>
Project ID: A675A	Patterns of health service use by older women in their last year of life
Lead Investigator:	<ul style="list-style-type: none"> Chris Harrington - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle Dr Peter Saul - Palliative Care, Newcastle Private Hospital
Liaison person:	<ul style="list-style-type: none"> Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: This project aimed to identify health service and opioid use in the year prior to death, for women aged over 65, using cause of death data from the National Death Index for women who died during years 2002 - 2017 nationally, and to the most recent date for which there is hospital data for NSW. The intention was to identify whether there are different patterns of service use by women with cancer, women with heart failure and whether women in the community with advanced illness are prescribed opioids. Factors potentially affecting use include age at death, cause of death, place of death (hospital, (public/private) home) hospital admission and specialist procedures, comorbid conditions, living arrangement and other sociodemographic variables.

The PhD was awarded in February 2022.

Project ID: A697A	Sexual fluidity amongst Australian women over the life course
Lead Investigator:	<ul style="list-style-type: none"> • Dr Alice Campbell - Life Course Centre & Institute for Social Science Research, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Dr Francisco Perales - Institute for Social Science Research, The University of Queensland • Prof Janeen Baxter - Institute for Social Science Research, The University of Queensland • A/Prof Ruth McNair - Dept of General Practice, University of Melbourne • Prof Tonda Hughes - School of Nursing, Columbia University • A/Prof Bethany Everett - Department of Sociology, University of Utah
Liaison person:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: In the past, it was assumed that a person's sexual orientation stayed the same throughout their life. However, it has recently been documented that a significant number of men and (particularly) women report changes to their sexual orientation over time. The aim of this project is to provide first-time, systematic Australian evidence on how common changes in sexual orientation are, what factors make these more and less likely to occur, their timing and their impact on women's life outcomes.

The paper '[Changes in sexual identity labels in a contemporary cohort of emerging adult women: Patterns, prevalence and a typology](#)'

published in 2021 in The Journal of Sex Research has just been awarded the Beigel Award for research excellence, and has been made open access until the end of 2022.

Publications:

Sexual minority women in longitudinal survey research: Is attrition a problem?. Campbell A, Perales F & Baxter J. *Archives of Sexual Behaviour*, 2020, 49(5); 1443-1461.

Changes in sexual identity labels in a contemporary cohort of emerging adult women: Patterns, prevalence and a typology. Campbell A, Perales F & Baxter J. *The Journal of Sex Research*, 2021, 58(5); 612-624.

Prevalence and socio-demographic correlates of identifying as 'mainly heterosexual': Stability and changes across three cohorts of Australian women. Perales F, Campbell A, Everett B, McNair R & Hughes T. *Archives of Sexual Behaviour*, 2021, 50(8); 3459-3477.

Following a straight path? The social locations and sexual identity trajectories of emerging adult women.. Campbell A. *Journal of Sociology*, 2021. doi.org/10.1177/14407833211049596

Sexual fluidity and psychological distress: What happens when young women's sexual identities change? Campbell A, Perales F, Hughes TL, Everett BG & Baxter J. *Journal of Health and Social Behavior*, 2022; 1-17.

Conference /
Presentations:

Leveraging large-scale panel data to study sexual orientation: Two case studies.

Campbell A, Perales F & Baxter J. Society for Longitudinal and Life Course Studies Conference, Milan, Italy, 9-11 July 2018.

Sexual-identity fluidity and depression in a national cohort of young Australian women.

Campbell A. Australian Public Health Conference 2019, Adelaide, SA, 17 September 2019.

Patterns and prevalence of sexual identity change: Evidence from two cohorts of Australian women.

Campbell A, Perales F & Baxter J. International Academy of Sex Researchers 2020 Virtual Meeting 29 July 2020.

The PhD was awarded in May 2021 and all publications have now been finalised, so the project is now complete.

Project ID: A726	Assessing patterns of change in lifestyle behaviours following birth
Lead Investigator:	<ul style="list-style-type: none"> • A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University
Student:	<ul style="list-style-type: none"> • Maureen Makama - Monash Centre for Health Research and Implementation (MCHRI), Monash University
Other collaborators:	<ul style="list-style-type: none"> • A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria • Arul Earnest - Department of Epidemiology and Preventive Medicine, Monash University • Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University • Sanjeeva Ranasinha - Monash Centre for Health Research and Implementation, Monash University • Dr Jacqueline Boyle - Monash Centre for Health Research and Implementation, Monash University • Dr Briony Hill - Monash Centre for Health Research and Implementation, Monash University • Prof Helen Skouteris - Health and Social Care Unit, Monash University • Dr Siew Lim - Monash Centre for Health Research and Implementation (MCHRI), Monash University
Liaison person:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Synopsis:	<p>Up to 1 in 2 Australian women are overweight and obese which can be worsened by excessive weight gain during pregnancy and after childbirth. Postpartum weight retention is common and fewer than 50% of women are estimated to return to their pre-pregnancy weight. Changes in diet and physical activity after childbirth can contribute to parity-related weight gain. However, it is not known if specific groups of women (eg based on factors such as age, health status, education, income, occupation and ethnicity) have particular difficulties in following healthy lifestyle behaviours, that may in turn be associated with greater parity-related weight gain.</p>
Publications:	<p>Assessing patterns of change in lifestyle behaviours by parity: A longitudinal cohort study. Makama M, Earnest A, Lim S, Skouteris H, Hill B, Teede H, Boyle JA, Brown WJ, Hodge AM & Moran LJ.</p>

International Journal of Epidemiology, 2022. doi:
10.1093/ije/dyac139.

Conference /
Presentations:

Patterns of change in lifestyle behaviours following childbirth (e-poster presentation).

Makama M, Ernest A, Lim S, Hill B, Skouteris H, Teede H, Boyle J, Hodge A & Moran L. The Austral-Asia Obesity Research Update (ANZOS). 15-16 October 2020.

Patterns of change in lifestyle behaviours following childbirth oral presentation).

Makama M, Ernest A, Lim S, Hill B, Skouteris H, Teede H, Boyle J, Hodge A & Moran L. Nutrition Society of Australia (NSA), Virtual Conference, 3-4 December 2020.

Accessing changes in lifestyle behaviours after birth (Rapid fire oral presentation).

Makama M, Ernest A, Lim S, Hill B, Skouteris H, Teede H, Boyle J, Hodge A & Moran L. Inaugural conference of the Health in Preconception, Pregnancy and Postpartum (HiPPP) Early- and Mid-career Researcher Collective (EMR-C). Online, 3 December 2020.

Patterns of change in lifestyle behaviours following childbirth (On-demand Oral Presentation).

Makama M, Ernest A, Lim S, Hill B, Skouteris H, Teede H, Boyle J, Brown W, Hodge A & Moran L. World Congress of Epidemiology, Virtual, 3-6 September 2021.

Project ID: A737A

The association of lifestyle factors with longitudinal weight gain in women with and without polycystic ovary syndrome

Lead Investigator:

- A/Prof Lisa Moran - Monash Centre for Health Research and Implementation, Monash University

Student:

- Mamaru Awoke - Monash Centre for Health Research and Implementation, Monash University

Other collaborators:

- A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria
- Arul Earnest - Department of Epidemiology and Preventive Medicine, Monash University
- Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University

	<ul style="list-style-type: none"> • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University • Dr Cate Bailey - Monash Centre for Health, Research and Implementation, Monash University
Liaison person:	<ul style="list-style-type: none"> • Prof Wendy Brown - School of Human Movement and Nutrition Sciences, The University of Queensland
Synopsis:	<p>Polycystic ovary syndrome (PCOS) is a condition affecting up to 1 in 5 reproductive-aged women associated with reproductive, metabolic and psychological complications. Obesity worsens the prevalence and features of PCOS, and women with PCOS have been shown to have a higher prevalence of obesity and greater weight gain over time compared to women without PCOS. Women with PCOS have also been shown to have higher energy intake, be less physically active and sit for longer, however it is not known how much these differences in lifestyle factors contribute to the differences in obesity.</p>
Publications:	<p>Weight gain and lifestyle factors in women with and without polycystic ovary syndrome. Awoke MA, Earnest A, Joham AE, Hodge AM, Teede HJ, Brown WJ & Moran LJ. <i>Human Reproduction</i>, 2022, 37(1); 129-141.</p>
Conference / Presentations:	<p><i>Longitudinal weight gain and lifestyle factors in women with and without polycystic ovary syndrome (Oral presentation).</i> Awoke MA, Ernest A, Joham A, Hodge A, Brown W, Teede H & Moran L. Androgen Excess and PCOS Society (AE-PCOS), 18th Annual Meeting, Virtual, 7-8 November 2020.</p> <p><i>Longitudinal weight gain and lifestyle factors in women with and without polycystic ovary syndrome (e-poster presentation).</i> Awoke MA, Ernest A, Joham A, Hodge A, Brown W, Teede H & Moran L. The Austral-Asia Obesity Research Update (ANZOS). 3-4 December 2020.</p> <p><i>Longitudinal weight gain and lifestyle factors in women with and without polycystic ovary syndrome (e-poster presentation).</i> Awoke MA, Ernest A, Joham A, Hodge A, Brown W, Teede H & Moran L. Nutrition Society of Australia (NSA) Virtual Conference, 3-4 December 2020.</p> <p><i>Longitudinal weight gain and lifestyle factors in women with and without polycystic ovary syndrome (e-Poster presentation).</i> Awoke MA, Ernest A, Joham A, Hodge A, Brown W, Teede H, & Moran LJ. Endocrine Society Annual Meeting, 20-23 March 2021.</p>

Longitudinal weight gain and lifestyle factors in women with and without polycystic ovary syndrome (oral presentation).

Awoke MA, Ernest A, Joham A, Hodge A, Brown W, Teede H, & Moran LJ. World Congress of Epidemiology, 3-6 September 2021.

Project ID: A745	Associations of menstrual problems and endometriosis with adverse pregnancy outcomes
Student:	<ul style="list-style-type: none"> Sifan Cao - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> Dr Mark Jones - Faculty of Health Sciences & Medicine, Bond University
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Endometriosis affects 2-17% women of reproductive age with severe period pain, often leading to infertility. Adverse pregnancy events like miscarriage, gestational diabetes, hypertension during pregnancy, preterm birth and low birth weight are seen in women with endometriosis after they become pregnant. A similar situation exists in women with menstrual problems. This project will explore the role of menstrual problems and endometriosis on adverse pregnancy outcomes. It will also investigate whether endometriosis mediates the association between menstrual problems and adverse pregnancy outcomes.</p>
Publications:	<p>History of premenstrual syndrome and development of postpartum depression: A systematic review and meta-analysis. Cao S, Jones M, Tooth L & Mishra GD. <i>Journal of Psychiatric Research</i>, 2020, 121; 82-90.</p> <p>Association between preconception cannabis use and risk of postpartum depression: Findings from an Australian longitudinal cohort. Cao S, Jones M, Tooth L & Mishra GD. <i>Drug and Alcohol Dependence</i>, 2021, 226; 108860.</p> <p>Generational differences in the prevalence of postpartum depression among young Australians: a comparison of two cohorts born 17 years apart. Cao S, Jones M, Tooth L & Mishra GD. <i>Archives of Women's Mental Health</i>, 2021, 5(1):199-214.</p> <p>Does premenstrual syndrome before pregnancy increase the risk of postpartum depression? Findings from the Australian Longitudinal</p>

Study on Women's Health. Cao S, Jones M, Tooth L & Mishra G. *Journal of Affective Disorders*, 2021, 279; 143-148.

Conference /
Presentations:

The effect of premenstrual syndrome on postpartum depression: a systematic review and meta-analysis.

Cao S. 2018 Clinical and Public Health Postgraduate Symposium, Herston, Qld 22 - 23 November 2018.

Does premenstrual syndrome before pregnancy increase the risk of postpartum depression? Findings from the Australian Longitudinal Study on Women's Health (ALSWH).

Cao S, Jones M, Tooth L & Mishra G. Preventive Health Conference 2020, Virtual, 13-27 May 2020.

Project ID: A756

Maternal diet before pregnancy and its effect on birth outcomes and child health and well-being

Student:

- Dr Dereje Gedle Gete - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Michael Waller - School of Public Health, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

Maternal diet has a significant role in ensuring successful pregnancy outcomes for the mother and her newborn. Nutrition requirements are generally higher in pregnancy to maintain maternal adaptations and the delivery of nutrients to the foetus. In addition, preconception diet is also important for an ideal onset and development of pregnancy since early pregnancy is a critical period for placental and foetal tissue developments. Therefore, maternal diets before pregnancy could have a profound effect on birth and child outcomes.

PhD awarded in February 2022.

Publications:

Pre-pregnancy diet quality and its association with offspring behavioral problems. Gete DG, Waller M & Mishra GD. *European Journal of Nutrition*, 2020, 60(1):503-515.

Changes in dietary patterns from preconception to during pregnancy and its association with socio-demographic and lifestyle factors. Gete DG, Waller M & Mishra GD. *Public Health Nutrition*, 2021; 1-11.

Pre-pregnancy diet quality is associated with lowering the risk of offspring obesity and underweight: Findings from a prospective cohort study. Gete DG, Waller M & Mishra GD. *Nutrients*, 2021, 13(4); 1044.

Prepregnancy dietary patterns and risk of preterm birth and low birth weight: findings from the Australian Longitudinal Study on Women's Health. Gete DG, Waller M, Mishra GD. *American Journal of Clinical Nutrition*, 2020, 111(5); 1048-1058.

Effects of maternal diets on preterm birth and low birth weight: a systematic review. Gete DG, Waller M & Mishra GD. *British Journal of Nutrition*, 2019, 123(4); 446-461.

The role of child diets in the association between pre-pregnancy diets and childhood behavioral problems: A mediation analysis. Gete DG, Waller M & Mishra GD. *Public Health Nutrition*, 2022, 1-10. doi: 10.1017/S1368980022001410.

Conference /
Presentations:

Effects of maternal diets on preterm birth and low birth weight: a systematic review (poster presentation).

Gete DG, Waller M & Mishra GD. 11th DOHaD World Congress, Melbourne, Vic, 20-23 October 2019.

Pre-pregnancy diet quality and its association with offspring behavioral problems.

Gete DG, Waller M & Mishra GD. Nutrition 2020 Live, Online, 30 May - 2 June 2020.

The role of child diets in the association between pre-pregnancy diets and childhood behavioral problems: A mediation analysis (poster presentation).

Gete D. Nutrition 2022, 14-16 June 2022.

Pre-pregnancy diet quality and its association with offspring behavioral problems (poster presentation).

Gete DG. 11th DOHaD World Congress, 20-23 October 2019.

Pre-pregnancy diet quality and its association with offspring behavioral problems (poster presentation).

Gete DG. University of Queensland, School of Public Health, Research Higher Degree Conference 2019 Herston, QLD, November 2019.

Pre-pregnancy dietary patterns and risk of preterm birth and low

birth weight: Findings from the Australian Longitudinal Study on Women's Health.

Gete DG. Keystone Symposia; Optimizing Nutrition for Maternal, Newborn and Child Health Virtual, 21-24 October, 2020.

Pre-pregnancy diet quality is associated with lowering the risk of offspring obesity and underweight: Findings from a prospective cohort study.

Gete DG. Nutrition 2021 Live Online, Virtual, 7-10 June, 2021.

Changes in dietary patterns from preconception to during pregnancy and its association with socio-demographic and lifestyle factors.

Gete DG. World Congress of Epidemiology, 2021. Virtual, 3-6 September 2021.

Project ID: A814	Menstrual irregularity as a predictor of metabolic disease and adverse reproductive health outcomes
Lead Investigator:	<ul style="list-style-type: none"> • Dr Anju Joham - Monash Centre for Health Research and Implementation, Monash University
Student:	<ul style="list-style-type: none"> • Sylvia Kiconco - Monash University
Other collaborators:	<ul style="list-style-type: none"> • Arul Earnest - Department of Epidemiology and Preventive Medicine, Monash University • Prof Helena Teede - Monash Centre for Health Research and Implementation, Monash University
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Given that menstrual irregularity underpins polycystic ovary syndrome (PCOS) and its diagnosis, it may be an early indicator for not only PCOS, but also metabolic syndrome, infertility, adverse pregnancy outcomes and early menopause. However, the link between menstrual irregularities and metabolic or adverse reproductive health outcomes remains unclear especially in the Australian population.</p> <p>The final analysis focused on heart disease & diabetes & excluded the reproductive outcomes because these would broaden the student's thesis & make it less focused.</p>
Publications:	Menstrual cycle regularity as a predictor for heart disease and diabetes: Findings from a large population-based longitudinal cohort

study. Kiconco S, Teede HJ, Earnest A, Loxton D & Joham AE. *Clinical Endocrinology*, 2022, 96(4); 605-616.

Conference /
Presentations:

Menstrual regularity as a predictor for heart disease and diabetes: findings from a cohort study.

Kiconco S Australian Public Health (PHAA) Conference 2021, Canberra, ACT, 23-24 September 2021.

Project ID: A822B

The association between maternal and childhood NO₂ and PM_{2.5} exposure and health and development of Australian children

Lead Investigator:

- Salma Mohamed Ahmed - School of Public Health, The University of Queensland

Other collaborators:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- A/Prof Luke Knibbs - Honorary Principal Fellow, The University of Queensland
- Prof Ian Yang - Faculty of Medicine, The University of Queensland
- Dr Kate Lycett - School of Psychology, Deakin University,
- Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Tafzila Akter Mouly - School of Public Health, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

In 2016/2017, mothers from the 1973-78 ALSWH cohort were invited to participate in the Mothers and their Children's Health (MatCH) study to complete a survey about their children (aged under 13 years). Recently, air pollution exposure estimates (nitrogen dioxide and fine particulate matter) have been linked to geocoded residential addresses of ALSWH participants. Therefore, the purpose of this project is to understand the health impact of decade long air pollution exposures experienced first-hand by mothers on the generation that follows as well as how environment contributes to disease risk in their children.

The PhD thesis has been submitted.

Publications:	<p>Maternal and childhood ambient air pollution exposure and mental health symptoms and psychomotor development in children: An Australian population-based longitudinal study. Ahmed SM, Mishra GD, Moss KM, Yang IA, Lycett K, & Knibbs LD. <i>Environment International</i>, 2021, 158; 107003.</p> <p>Association between residential greenspace and health-related quality of life in children aged 0-12 years. Ahmed SM, Mishra GD, Moss KM, Mouly TA, Yang IA & Knibbs LD. <i>Environmental Research</i>, 2022, 214(1); 113759.</p> <p>Residential greenspace and early childhood development and academic performance: A longitudinal analysis of Australian children aged 4-12 years. Ahmed SM, Knibbs LD, Moss KM, Mouly TA, Yang IA & Mishra GD. <i>Science of The Total Environment</i>, 2022, 833; 155214.</p>
Conference / Presentations:	<p><i>Roadway proximity and children's behaviour and psychomotor development: A cross-sectional study among Mothers and their Children's Health study in Australia (poster presentation).</i> Ahmed S, Knibbs LD & Mishra GD. Queensland Women's Health Forum 2021, Brisbane, QLD, 27-28 May 2021.</p> <p><i>Residential proximity to roadways and children's behaviour and psychomotor development: Findings from the Mothers and their Children's Health study.</i> Ahmed S. International Society for Environmental Epidemiology Virtual 23-26 August 2021.</p>

Project ID: A828	Predictive ability of different diet quality indices on subsequent risk of Non-communicable Disease (Study 1) (NCD) mortality and multimorbidity
Lead Investigator:	<ul style="list-style-type: none"> A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle
Student:	<ul style="list-style-type: none"> Hlaing Hlaing Hlaing - The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle A/Prof Allison Hodge - Cancer Epidemiology Centre, Cancer Council Victoria

- Prof Erica James - School of Medicine and Public Health, The University of Newcastle
 - Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle
- Liaison person:
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Synopsis:
- Since a single nutrient approach was considered to be insufficient for detecting diet-disease associations, overall diet quality and pattern analysis, measuring a range of foods, food groups, and/or nutrients has emerged. Diet quality has received much attention as a predictor of non-communicable disease (NCD) mortality. However, inadequate work currently exists regarding the investigation of unhealthy diet and multimorbidity, defined as the presence of two or more chronic medical conditions. This project investigated the predictive ability of diet quality on NCD (including multimorbidity) and all-cause mortality among a representative sample of women from the ALSWH cohort born between 1946-51.

Publications:

Diet quality and incident non-communicable disease in the 1946-1951 cohort of the Australian Longitudinal Study on Women's Health. Hlaing-Hlaing H, Dolja-Gore X, Tavenor M, James EL, Hodge AM & Hure AJ. *International Journal of Environmental Research and Public Health*, 2021, 18(21); 11375.

Project ID: A836	Perception and lived experience of older women about the effect poor eyesight on driving
Student:	<ul style="list-style-type: none"> • Mitiku Teshome Hambisa - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • Dr Jennifer White - University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>This research sought to understand the perceptions and experience of older women in Australia regarding transportation challenges. Of particular interest were the experiences of women who have poor vision (due to cataract, macular degeneration or other causes) and stopped driving. These women's experiences were compared with those of women who continued driving. We examined themes identified from older women's free-text comments provided over 8</p>

years (from 2002-2019), contrasting those who drive themselves and those who do not. Qualitative descriptive analysis was used.

Publications: Understanding the relationship between eye disease and driving in very old Australian Women: A longitudinal thematic evaluation. White J, Hambisa M, Cavenagh D, Dolja-Gore X & Byles J. *BMC Ophthalmology*, 2022, 22.

Project ID: A837 **Associations between eating disorders in mothers and children's diet and weight**

Lead Investigator:

- A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

Student:

- Dr Caley Tapp - The University of Queensland

Other collaborators:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
- Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: Eating disorders (for example, binge-eating disorder, anorexia nervosa and bulimia nervosa) are mental health disorders characterised by disturbances in eating behaviours. Eating disorders can significantly impact a women's emotional, psychosocial and physical well-being. Recent research has found children of mothers with eating disorders to be at increased risk of difficulties in feeding (for e.g., breastfeeding initiation and cessation) and eating behaviours, cognitive and motor developmental difficulties, display more emotional and behavioural difficulties, and to be more likely described as having a difficult temperament. The long-term impacts of a history of disordered eating and the impact this may have on the subsequent health of both the women with the history of disordered eating and her child/ren is less well known, particularly in older children (over 3 years). Of particular interest is the potential impact on a child's diet, body weight, general development and psychosocial health and whether effects are similar for siblings. This study aims to examine these associations. This project has been completed, and one paper, titled 'History of pre-pregnancy maternal eating disorder symptoms and childhood

behavioural problems in girls and boys' has been accepted for publication in the *International Journal of Eating Disorders*.

Project ID: A842	Mental Health and Type 2 Diabetes: Associations with conventional and complementary medicine health service utilisation in young and mid-aged women
Student:	<ul style="list-style-type: none"> Tracey Oorschot - University of Technology Sydney
Other collaborators:	<ul style="list-style-type: none"> Prof Jon Adams - School of Public Health, University of Technology Sydney Prof David Sibbritt - Faculty of Health, University of Technology Sydney
Liaison person:	<ul style="list-style-type: none"> Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Synopsis:	<p>Approximately 6% of Australian adults report a diabetes condition with up to 90% of cases representing Type 2 Diabetes (T2DM). True prevalence is estimated to be much higher (10%) and is increasing. The first step in treatment includes engaging with recommended health care professionals (HCP) and adoption of a range of healthy lifestyle behaviours, which largely falls to the individual to self-manage. T2DM is also associated with an increased risk of anxiety, depression or psychological distress, with women most at risk, which can have a detrimental effect on optimal self-management and a range of health outcomes. Whilst past research has explored mental health and T2DM, less is known about associations between mental health status and conventional or complementary medicine self-management practices.</p> <p>This project has been completed, and one paper, titled 'Is mental health co-morbidity an influencing factor in the health service utilisation of women with diabetes mellitus?' has been accepted for publication in <i>PLoS One</i>.</p>
Conference / Presentations:	<p><i>Women with diabetes and co-morbid depression or anxiety are using health services differently.</i></p> <p>Oorschot T. Australian Diabetes Congress, Virtual, 11-13 August 2021.</p>
Project ID: A849	Three essays in Health Economics: IVF policy change implications

- Lead Investigator: • Prof Brenda Gannon - Centre for Business and Economics of Health, The University of Queensland
- Student: • Aarushi Dhingra - The University of Queensland
- Other collaborators: • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
• Prof Luke Connelly - The University of Queensland
- Liaison person: • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis: This research will use a microeconomics health production model and econometric models, to assess the economic impact of a policy change in the reimbursement for medical care in Australia and the resulting impact on the use of health services for women who received reproductive treatments such as In Vitro Fertilisation (IVF). This project will also study the mortality and morbidity rates differentials among IVF-born and conventionally born children.

We have published a paper providing a new approach to estimating inequity in the use of relatively low-frequency-of-use health services, assisted reproductive technology. The paper uses a novel econometric technique, Penalised Maximum Likelihood Estimator, to estimate the use and inequity in the use of Assisted Reproductive Technology (ART) in Australia. The results show that the use of ART, after controlling for need, is equitable in 2006, however, it is concentrated amongst the high-income earners in the years 2009 and 2012. The results also show that financing for ART is distributed equitably in 2006, however, it is regressive in 2009 and 2012.

Conference / Presentations: *Measuring Inequity in Less Utilised Health Services.*
Dhingra A. 2021 International Health Economics Association (iHEA) World Congress, Virtual July 2021.

Measuring Inequity in Less Utilised Health Services.
Dhingra A. 10th Australian Health Economics Society Doctoral (AHED) workshop. Dhingra A. 20 September 2021.

Project ID: A1262	The impact of COVID-19 on the food consumption of women in Australia
-------------------	---

- Student: • Tara Tolhurst - The University of Newcastle
- Other collaborators: • Emily Princehorn - Centre for Women's Health Research, The University of Newcastle

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

This study investigates the impact of the COVID-19 pandemic on the food consumption of women across the cohorts of the ALSWH through a qualitative study. Thematic data analysis will be conducted to understand the experiences of women and the underlying reasons for changes in food consumption in response to the COVID-19 pandemic. The analysis will be contextualised by provided quantitative descriptive statistics on food consumption in the COVID-19 pandemic.

ALSWH Project A1262 has resulted in a paper entitled 'Changes in the Food and Drink Consumption Patterns of Australian Women During the COVID-19 Pandemic'. The research in this paper highlights the changes in the consumption behaviours of Australian women ranging from age 24 to 74 during the COVID-19 pandemic, as reported between the 22nd of July to the 5th of August 2020. This study looks at the generational similarities and differences in the effects of the pandemic on food and drink consumption, and the enablers and barriers to healthy food and drink consumption for these women. The paper has been accepted for publication in the *Australian and New Zealand Journal of Public Health*, and will be published in the next few months.

Publications:

Changes in the food and drink consumption patterns of Australian Women during the COVID-19 pandemic. *Australian and New Zealand Journal of Public Health*, 2022, doi.org/10.1111/1753-6405.13295.

3 APPENDIX C: SUBSTUDIES

3.1 Current substudies

Project ID: W091	Mother's and their Children's Health (MatCH) study - Phase I
Lead Investigator:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Richard Hockey - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland • Prof Ilona Koupil - Stockholm University & Karolinska Institute • Prof Peter Davies - Centre for Children's Health Research, The University of Queensland • Prof Virginia Slaughter - School of Psychology, The University of Queensland • A/Prof Kylie Hesketh - School of Exercise and Nutrition Sciences, Deakin University • Prof Carol Bower - Telethon Institute for Child Health Research (TICHR), University of Western Australia • Prof Peter Sly - Centre for Children's Health Research, The University of Queensland • Colleen Loos - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Hsiu-Wen Chan - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland • Dr Katrina Moss - Australian Women and Girls' Health Research Centre, The University of Queensland • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland

- Dr Gregore Mielke - School of Public Health, The University of Queensland.

Liaison person:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Synopsis:

The MatCH study aims to take a family-centred approach to advance understanding of child health and development in terms of all the children in a family unit, by investigating factors with regard to a) the history of maternal and family characteristics and b) their effects on the health and development of all the children in the family. The study will combine detailed data from a national cohort of women with new survey data on their children to paint a picture of family health and health service use that is unparalleled, supporting a more integrated and targeted approach to the delivery of preventative and primary health care for all Australian families.

MatCH substudy data is now available to external collaborators, along with ALSWH data.

Publications:

Associations between feeding practices in infancy and fruit and vegetable consumption in childhood. Moss KM, Dobson AJ, Tooth L & Mishra GD. *British Journal of Nutrition*, 2020, 124(12); 1320-1328.

Which Australian women do not exclusively breastfeed to 6 months, and why? Moss KM, Dobson AJ, Tooth L & Mishra GD. *Journal of Human Lactation*, 2021, 37(2); 390-402.

Not all play equipment is created equal: Associations between equipment at home and childrens' physical activity. Moss KM, Dobson AJ, Edwards KL, Hesketh KD, Chang Y-T & Mishra GD. *Journal of Physical Activity and Health*, 2019, 16(11); 945-951.

The role of offspring's birthweight on the association between pre-pregnancy obesity and offspring's childhood anthropometrics: A mediation analysis. Adane AA, Tooth L & Mishra G. *Journal of Developmental Origins of Health and Disease*, 2019, 10(5); 570-577.

Maternal preconception weight trajectories, pregnancy complications and offspring's childhood physical and cognitive development. Adane A, Mishra G & Tooth L. *Journal of Developmental Origins of Health and Disease*, 2018, 9(6); 653-660.

	<p>MatCH (Mothers and their Children's Health) Profile: Offspring of the 1973-78 cohort of the Australian Longitudinal Study on Women's Health. Mishra GD, Moss K, Loos C, Dobson AJ, Davies PSW, Loxton D, Hesketh KD, Koupil I, Bower C, Sly P, & Tooth L. <i>Longitudinal and Life Course Studies</i>, 2018, 9(3); 351-375.</p> <p>Maternal preconception weight trajectories are associated with offsprings' childhood obesity. Adane A, Dobson A, Tooth L & Mishra G. <i>International Journal of Obesity</i>, 2018, 42(7); 1265-1274.</p> <p>Maternal pre-pregnancy obesity and childhood physical and cognitive development of children: a systematic review. Adane AA, Mishra GD & Tooth LR. <i>International Journal of Obesity</i>, 2016, 40; 1608-1618.</p> <p>Diabetes in pregnancy and childhood cognitive development: A systematic review. Adane AA, Mishra GD & Tooth LR. <i>Pediatrics</i>, 2016, 137(5); e20154234.</p> <p><i>Understanding intergenerational health: Methodology of the Mothers and their Children's Health Study.</i></p> <p>Loos C. Australasian Epidemiological Association (AEA) Annual Scientific Meeting 2019, Brisbane, QLD, 23-25 October 2019.</p> <p><i>Mothers and their Children's Health (MatCH) study: Is pregnancy a sensitive period?</i></p> <p>Moss K. Australasian Epidemiological Association (AEA) Annual Scientific Meeting 2019, Brisbane, QLD, 23-25 October 2019.</p> <p><i>Understanding maternal preconception weight trajectories and child outcomes using a cohort-within-cohort study design.</i></p> <p>Tooth L. Australasian Epidemiological Association (AEA) Annual Scientific Meeting 2019, Brisbane, QLD, 23-25 October 2019.</p> <p><i>A new method for investigating associations between play equipment and physical activity.</i></p> <p>Moss K. Australasian Epidemiological Association (AEA) Annual Scientific Meeting 2019, Brisbane, QLD, 23-25 October 2019.</p>
Conference / Presentations:	
Project ID: W096	Women's constrained choices: How does it affect women?
Lead Investigator:	<ul style="list-style-type: none"> Dr Melissa Johnstone - Institute for Social Science Research, The University of Queensland

- Other collaborators:
- Prof Christina Lee - School of Psychology, University of Queensland
 - Prof Jayne Lucke - School of Public Health, The University of Queensland
- Liaison person:
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

Synopsis: Given the impact that childbearing has on Australian women's working careers, compared to women in other countries, there is a need to understand the extent to which women feel they are active agents in their work-family choices, and how important this is for their well-being. Through semi-structured interviews with a subsample of women, this research aims to understand how much women see themselves as active agents in their work-family decision making, the importance of agency for their well-being, and the relative influence of policy and other sociodemographic factors on life choices for women. This will advance knowledge in work-family literature, women's life course development, and contribute to the evidence-base for policies that support the needs of women.

Publications: 'It's been a bit of a rollercoaster': Australian women's difficulties and coping strategies. Lucke J & Johnstone M. *Issues in Mental Health Nursing*, 2020, 42(1):46-56.

Project ID: W102A	Living beyond expectations: How older women demonstrate successful and healthy ageing
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Jenny Helman - Research Centre for Gender and Health, The University of Newcastle • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Dr Meredith Tavener - School of Medicine and Public Health, Health and Ageing, University of Newcastle • Emily Princehorn - Centre for Women's Health Research, The University of Newcastle • Dr Catherine Chojenta - Centre for Women's Health Research, The University of Newcastle

Liaison person:

- Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis: Centenarians are a ‘model of ageing well’, having lived long and delayed the onset of disease and disability until much later in life. With increasing longevity, larger numbers of people will live to 100. However, little is known about the experiences of people at this extreme old age, as few studies have included very old people and most do not have data from earlier life to put these late life experiences into a life course context. Current participants of the Australian Longitudinal Study on Women's Health include an elite group of over 1,400 women who are already past their mid-90s and who are likely to live to 100. In-depth interviews with a sample of these women will provide a rare opportunity to gain insights into the experience of extreme old age, and to contrast their current and retrospective views with the trajectories and circumstances presented by the quantitative and qualitative data collected by ALSWH since 1996, when the women were in their 70s. The interviews will be framed by the new WHO healthy ageing framework, and will focus on women's ability to do the things they want to do, and the balance between intrinsic capacity and functional support. Interviews with women born 1946-51 will provide insight into the prospects for healthy ageing for women in this cohort.

Conference / Presentations: *Ageing at very old ages - Perspectives of women from the Australian Longitudinal Study on Women's Health.*
Byles J. 53rd AAG Conference, 18-20 November 2020.

100 and not out: Health and healthy ageing for women approaching 100 years of age.
Byles J. IAGG 2022: 22nd World Congress of Gerontology and Geriatrics, 12-16 June 2022.

Project ID: W103	M-PreM study: Reproductive factors, from menarche to premenopause, and the risk of cardiometabolic and respiratory conditions before menopause
------------------	---

Lead Investigator:

- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Other collaborators:

- Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle

- Dr Hsiu-Wen Chan - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland
- Dr Hsin-Fang Chung - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland
- Prof Isabel Ferreira - School of Public Medicine, University of Wollongong
- Prof Grant Montgomery - Institute for Molecular Biosciences, The University of Queensland
- Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Shyamali Dharmage - Melbourne School of Population and Global Health, University of Melbourne
- A/Prof Jenny Visser - Erasmus University Medical Centre
- Prof Harold (David) McIntyre - Mater Clinical Unit, The University of Queensland
- Prof Emmanuel Stamatakis - Charles Perkins Centre, The University of Sydney
- Prof Bu Yeap - Faculty of Health and Medical Sciences, The University of Western Australia
- Prof David Handelsman - ANZAC Research Institute
- Dr Matthew Ahmadi - The University of Sydney
- Leticia Watanabe Ribeiro - Australian Women and Girls' Health Research Centre, The University of Queensland
- Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland

Liaison person:

Synopsis:

Chronic conditions and poor health show marked sex differences in their prevalence and severity across the life course. Previous studies have typically focussed on risk factors for these conditions among postmenopausal women. This study maps the pathways between female reproductive factors, from the first period through to pregnancy and subfertility, and the risks of cardiometabolic and respiratory conditions and poor health among women in their 40s. This study involves conducting a range of biomedical tests (body size measurements, cognitive test, handgrip strength, lung function), fitting a physical activity monitor, and collecting blood samples to measure cardiometabolic and hormone markers and for biobanking.

Recruitment and data collection was conducted from June 2019 to June 2021. The dataset has been finalised and all the blood testing for cardiometabolic and female hormone biomarkers has been completed. Recently, two PhD students, a research assistant and research fellow joined the team to analyse the data. A cohort profile manuscript has been submitted to a journal and several manuscripts are now in preparation.

Project ID: W104	Contraceptive choice for women with chronic disease: A qualitative approach
Lead Investigator:	<ul style="list-style-type: none"> • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle • Prof Jayne Lucke - School of Public Health, The University of Queensland • Dr Jacqueline Coombe - Melbourne School of Population and Global Health, The University of Melbourne • A/Prof Deborah Bateson - Family Planning NSW • Emma Byrnes - Centre for Women's Health Research, The University of Newcastle
Liaison person:	<ul style="list-style-type: none"> • Prof Deborah Loxton - Centre for Women's Health Research, The University of Newcastle
Synopsis:	<p>Unintended pregnancy remains high in developed countries despite access to high quality sexual and reproductive services. Some evidence exists that women with chronic diseases experience unintended pregnancy at significantly higher rates than women without chronic disease. For these women, unintended pregnancies are associated with serious adverse maternal and perinatal outcomes, including congenital abnormalities, pre-term labour, spontaneous abortion, and foetal death. Optimised preconception care and reproductive life planning is critical to the prevention of unintended pregnancies and reduction in pregnancy-related complications in women with chronic diseases. Little information exists in the Australian context. The aim of this project is to understand how women in their prime child-bearing years (and their partners) negotiate contraceptive decision-making and reproductive life planning in the context of chronic disease.</p>

Interviews with women from the ALSWH 1989-95 cohort and their partners have been completed. The findings from this research are currently being written up for publication.

Project ID: W105	Genetic variants, Early Life exposures, and Longitudinal Endometriosis symptoms Study (GELLES)
Lead Investigator:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland
Other collaborators:	<ul style="list-style-type: none"> • Dr Ingrid Rowlands - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland • Prof Jenny Doust - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Sally Mortlock - Institute for Molecular Biosciences, The University of Queensland • Prof Grant Montgomery - Institute for Molecular Biosciences, The University of Queensland • Prof Annette Dobson - Australian Women and Girls' Health Research Centre, The University of Queensland • Richard Hockey - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland • Prof Jayne Lucke - School of Public Health, The University of Queensland • Dr Ellen Wessel - Australian Women and Girls' Health Research Centre, The University of Queensland • Dr Dereje Gedle Gete - Australian Women and Girls' Health Research Centre, School of Public Health, The University of Queensland • Sara Berndt - Australian Women and Girls' Health Research Centre, The University of Queensland
Liaison person:	<ul style="list-style-type: none"> • A/Prof Leigh Tooth - Australian Women and Girls' Health Research Centre, University of Queensland
Synopsis:	Endometriosis is a complex disease with a poorly understood aetiology. There is some evidence that implicates various genetic factors in the aetiology of the disease. Limited epidemiologic data is available on the role of early life factors, particularly in utero exposures, and symptoms during adolescence in endometriosis development. The Genetic variants, Early Life

exposures, and Longitudinal Endometriosis symptoms Study (GELLES) aims to identify genetic and early life factors that contribute to the development and progression of endometriosis. The outcomes of the study will assist in the prediction of endometriosis to facilitate earlier diagnosis for young women.

Ethics approval for GELLES was granted by The University of Newcastle on August 31st, 2021. The GELLES survey was initially launched in November 2021, with a second wave of recruitment and more intensive follow-up launched in August 2022. To date, 4,273 participants from the 1989-95 cohort have participated in GELLES (3,614 completed surveys and 659 partially completed surveys).

3.2 Completed sub-studies

Project ID: W097	Chronic disease management and outcomes for women with diabetes
Lead Investigator:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle
Other collaborators:	<ul style="list-style-type: none"> • Prof Gita Mishra - Australian Women and Girls' Health Research Centre, The University of Queensland • Julia Lowe - Sunnybrook Health Sciences Centre • Dr Xenia Dolja-Gore - School of Medicine and Public Health, The University of Newcastle • A/Prof Alexis Hure - College of Health, Medicine and Wellbeing, The University of Newcastle • Dr Melissa Harris - Centre for Women's Health Research, The University of Newcastle • Prof John Attia - School of Medicine and Public Health, The University of Newcastle • Huy Tran - Pathology North, New South Wales Health Pathology • Dr Margaret Lynch - Research Innovation and Partnerships, Hunter New England Local Health District
Liaison person:	<ul style="list-style-type: none"> • Prof Julie Byles - Centre for Women's Health Research, The University of Newcastle

Synopsis:

Diabetes is a global health issue. If not well managed, it can result in severe complications, increased hospitalisations and premature death. Tight glucose control is a primary goal for diabetes management. This project sought to understand the predictors of good glucose control for Australian women (particularly older women). Self-report survey data will be linked to administrative sources (MBS, PBS, hospital), and newly collected biological data. By understanding the collective impact, it will inform better management of this common chronic condition in older age.

Data have been archived.