women's health australia

the australian longitudinal study on women's health

Annual Report: 2005

The University of Newcastle Australia

The University Of Queensland Australia

ISSN: 2653-3227

Contents

Features:

Director's Report

It is a great pleasure to celebrate our tenth anniversary, to look back on a decade of achievements, and to look forward with confidence that funding is assured for the next few years.

The Australian Longitudinal Study on Women's Health is internationally recognized for its scientific quality and its capacity to contribute to the development of evidence-based health policy. Funded since 1995 by the Australian Government Department of Health and Ageing, it follows 40,000 Australian women in three age cohorts, selected from the entire Australian population.

Each cohort provides a unique perspective. The younger women are moving through education into work, relationships, motherhood, and making major decisions that will shape their health and the course of their lives. The mid-age women are seeing changes in family structure and in caregiving responsibilities while at the same time negotiating their own paid and unpaid work and retirement plans. The older women are dealing with increasing levels of chronic illness, while striving to maintain independence and quality of life.

The information these women generously provide is used to support the development of policy that will meet the health needs of Australia's women now and in the future.

This year saw the production of ten Achievements Reports, highlighting major themes and outcomes of the project over the first ten years. A very successful presentation was held at Parliament House in September, launched by the Hon Tony Abbott, Minister for Health.

Our tenth year of the project has been as busy as previous years. We surveyed the Older cohort (now aged between 79 and 84) for the fourth time, while preparing and piloting Survey 4 of the Younger cohort for next year. At the same time we have continued to analyse data from the first four surveys of the Mid-age cohort, and to continue with the cohort maintenance and tracking activities that underlie the success of the project.

The younger women will be aged between 28 and 33 when surveyed next year. Increasingly these women are focusing on family formation and juggling of paid and unpaid work commitments. While young women are generally in good physical health, there is a worrying trend towards increasing body weight and decreasing physical activity that places them at risk of chronic illness in the longer term and underscores the importance of government strategies to promote healthy physical activity and balanced nutrition.

With the mid-age women, there has been an emphasis on their patterns of paid work and of family caregiving, volunteer work, and unpaid work at home, and how these relate to health and illness. Their plans for retirement, both financial and in terms of maintaining good health and independence, have been a particular focus which also has strong implications for future policy.

Increasingly, the majority of the older women live with at least one chronic disease; arthritis, heart disease and diabetes are the most common. These women are strongly motivated to maintain their independence and to remain in their own homes, and many are taking active steps to maintain their own well-being.

I would like to take this opportunity to thank the Australian Government Department of Health and Ageing for their continuing support of this world-class scientific project, and of course to thank the tens of thousands of Australian women who give their time to provide information that will help improve the health of Australians in the future.

Annette Dobson

Annette Dobson
Study Director

Research Steering Committee 2005

Professor Annette Dobson

BSc, MSc, PhD, GCert Mngt, AStat

Director, Australian Longitudinal Study on Women's Health

School of Population Health

University of Queensland

Professor Christina Lee

BA, PhD, FAPS

Co-ordinator, Australian Longitudinal Study on Women's Health

School of Psychology and School of Population Health

University of Queensland

Professor Wendy Brown

BSc (Hons), DipEd, MSc, PhD

School of Human Movement Studies

University of Queensland

Dr Penny Warner-Smith

BA, DipEd, MEd, PhD

Manager, Australian Longitudinal Study on Women's Health

Deputy Director, Research Centre for Gender and Health

University of Newcastle

Emeritus Professor Lois Bryson

BA, DipSocStud, DipEd, PhD

Director, Research Centre for Gender and Health

University of Newcastle

Dr Anne Young

BMath (Hons), DipMedStat, PhD, AStat

Project Statistician, Australian Longitudinal Study on Women's Health

Research Centre for Gender and Health

University of Newcastle

Professor Julie Byles

BMed, PhD

Director, Centre for Research and Education in Ageing

University of Newcastle

Investigators & Research Associates 2005

Dr Jon Adams
Centre for Clinical Epidemiology and Biostatistics, University of Newcastle

Dr Kylie Ball
School of Health Sciences, Deakin University

Professor Peter Brown
School of Leisure Studies, Griffith University

Dr Clare Collins
Division of Nutrition and Dietetics, University of Newcastle

Dr John Germov
School of Social Sciences, University of Newcastle

Dr Kristi Heesch
School of Human Movement Studies, University of Queensland

Associate Professor Duncan Ironmonger
Department of Economics, University of Melbourne

Associate Professor Justin Kenardy
School of Psychology, University of Queensland

Dr Debbie Lawlor
School of Epidemiology and Public Health Medicine, University of Bristol, UK

Dr Deborah Loxton
Research Centre for Gender and Health, University of Newcastle

Dr Ruth McNair
School of General Practice, University of Melbourne

Dr Yvette Miller
School of Human Movement Studies, University of Queensland

Associate Professor Gita Mishra
University College London, UK

Dr Sue Outram
School of Medical Practice and Population Health, University of Newcastle

“help improve the health of Australians in the future”

Dr Nancy Pachana
School of Psychology, University of Queensland

Dr Lynne Parkinson
Centre for Research and Education in Ageing, University of Newcastle

Dr Kristy Sanderson
Centre for Health Research, Queensland University of Technology

Associate Professor Margot Schofield
School of Health, University of New England

Dr David Sibbritt
Centre for Clinical Epidemiology and Biostatistics, University of Newcastle

Ms Michelle Smith
School of Health and Rehabilitation Sciences, University of Queensland

Dr Angela Taft
Centre for Mothers’ and Children’s Health, La Trobe University

Dr Ann Taylor
School of Social Sciences, University of Newcastle

Dr Leigh Tooth
School of Population Health, University of Queensland

Associate Professor Cathy Turner
School of Nursing, University of Queensland

Dr Tracey Wade
School of Psychology, Flinders University

Dr Lauren Williams
Division of Nutrition and Dietetics, University of Newcastle

Project Staff 2005

Research Centre for Gender and Health, University of Newcastle

RCGH Director
Professor Lois Bryson

Project Manager/ RCGH Deputy Director
Dr Penny Warner-Smith

Project Statistician
Dr Anne Young

Statistician
Ms Jenny Powers

Assistant Statisticians
Dr Virginia Wheway
Mr Andrew Hampson
Ms Angela Wood

Data Manager
Mrs Jean Ball

Assistant Data Manager
Mrs Anna Graves

Data Assistant
Mrs Penny Knight

Senior Research Officer
Dr Deborah Loxton

Research Assistants
Ms Rosie Mooney
Mrs Catherine Chojenta
Ms Jenny Helman
Ms Jodie Ryan
Ms Julie Brookes

Publicity Officer/Executive Assistant
Mrs Lyn Adamson

Designer
Mr Timothy Neve

Administrative Assistants
Ms Melanie Moonen
Ms Sue James

Part-time Project Assistants
Mr Sam Adamson
Ms Jodie Bradbury
Ms Gail Dine
Ms Liz Knock
Ms Ingrid O'Neill
Ms Monica O'Neill
Ms Amy Sales
Ms Jackie Sales
Ms Gaye Sheather
Ms Lauren Thoroughgood

School of Population Health, University of Queensland

Project Director
Professor Annette Dobson

Project Coordinator
Professor Christina Lee

Senior Project Officer
Ms Anne Russell

Project Administrative Officers
Ms Cherie Harris
Ms Maree O'Mullane
Ms Alicia Svensson

Research Officers/ Statisticians
Ms Jessica Ford
Ms Eliza Fraser
Ms Helen Gramotnev
Mr Richard Hockey
Ms Melanie Spallek

University of Newcastle Staff

University of Queensland Staff

Research Students

Postgraduate research students have been an integral part of the Project since it began. They represent the next generation of women's health research and are an investment in Australia's future. Supported by scholarships and grants from other sources, they add significantly to the Project without major costs to core funds.

We congratulate all our past postgraduate students on successfully completing their degrees, and on their achievements since then.

We also acknowledge the efforts of our currently enrolled students, and their supervisors, many of whom are external to the Project. All these people make a valuable contribution to the success of the Project, as well as helping to assure a future for women's health research.

> "to look back on a decade of achievements, and to look forward with confidence"

Completed Postgraduate Students

1998

Stefani Strazzari, BA Honours

"Contraception and young women"

Institution: Department of Sociology and Anthropology, University of Newcastle

Supervisor: Professor Lois Bryson

1999

Kylie Ball, PhD

"Disordered eating, psychological stress and coping in young women"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisor: Professor Christina Lee

Amanda Patterson, PhD

"Iron deficiency in women of childbearing age"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Professor Wendy Brown and Professor David Roberts

Anne Young, PhD

"General practitioner utilization among women in Australia"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Professor Annette Dobson and Professor Julie Byles

Sandra Bell, BSc (Psych) Honours

"Examination of the psychometric properties of the WHA Young Stress Scale: A measure of perceived stress for young Australian women"

Institution: Department of Psychology, University of Newcastle

Supervisor: Professor Christina Lee

Glennys Parker, BA/BSc Honours

"Violence and abuse: An assessment of mid-aged women's experiences"

Institution: Department of Psychology, University of Newcastle

Supervisor: Professor Christina Lee

2000

Brendan Goodger, PhD

"Social support, health status and health care utilization in women aged 70-76 years"

Institution: Centre for Clinical Epidemiology and Biostatistics, University of Newcastle

Supervisors: Professor Julie Byles and Associate Professor Gita Mishra

Jenny Powers, M Med Stats

"Stability of groups of correlated variables identified by exploratory factor and cluster of analysis"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisor: Professor Annette Dobson

Nadine Smith, M Med Stats

"Psychological predictors of successful ageing in a cohort of Australian women"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Professor Christina Lee and Professor Annette Dobson

Fiona Campbell, M Health Sci

"Predicting body dissatisfaction amongst young women"

Institution: Discipline of Behavioural Science in Relation to Medicine, University of Newcastle

Supervisor: Dr Libby Campbell

Barbara Reen, M Health Sci

"Depression study: Emotions and health"

Institution: Centre for Clinical Epidemiology and Biostatistics, University of Newcastle

Supervisors: Dr Carla Treloar, Associate Professor Nick Higginbotham and Dr Sue Outram

Completed Postgraduate Students (cont . . .)

2002

Sue Outram, PhD

"Experiences of mid-aged women in NSW seeking help for psychological distress"

Institution: Faculty of Medicine and Health Sciences, University of Newcastle

Supervisor: Professor Jill Cockburn

Samantha Hollingworth, MPH

"The contraceptive behaviour of young women in Australia"

Institution: School of Population Health, University of Queensland

Supervisors: Professor Annette Dobson and Ms Anne Russell

2003

Sandra Bell, PhD

"Stress, health behaviours and the transition to adulthood among young women"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisor: Professor Christina Lee

Melissa Graham, PhD

"Treatments for menstrual symptoms: An epidemiological investigation"

Institution: School of Health and Human Sciences, La Trobe University

Supervisors: Dr Helen Keleher and Dr Erica James

Deborah Loxton, PhD

"Domestic abuse and health: Quantitative and qualitative investigations among mid-aged Australian women"

Institution: School of Health, University of New England

Supervisors: Associate Professor Margot Schofield, Dr Rafat Hussain and Professor Victor Minichiello

Glennys Parker, PhD

"Abused mid-aged women in Australia: Experiences, well-being and ways of coping"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisor: Professor Christina Lee

Esben Strodl, PhD

"Psychological factors associated with the frequency of angina and the role of mediating variables"

Institution: School of Psychology, University of Queensland

Supervisor: Associate Professor Justin Kenardy

Lauren Williams, PhD

"Factors affecting weight change in mid-aged women"

Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Professor Wendy Brown and Dr Anne Young

2004

Emma Harley, PhD

"Social support in later life: Cross-sectional and longitudinal analyses of inter-relationships between psychosocial variables in the Women's Health Australia study"

Institution: School of Psychology, University of Queensland

Supervisor: Dr Nancy Pachana

Lauren Miller-Lewis, PhD

"Psychosocial predictors of pregnancy risk-taking, pregnancy, and childbearing in Australian youth"

Institution: School of Psychology, Flinders University

Supervisors: Associate Professor Tracey Wade and Professor Christina Lee

Wenggie Fong, B Sc Honours

"Vision and hearing loss in older women: Health and psychosocial impacts"

Institution: Department of Speech Pathology and Audiology, Flinders University

Supervisors: Dr Kristen McLaughlin and Associate Professor Linnett Sanchez

2005

Gabrielle Rose, PhD

"Acumen, Ambivalence and Ambiguity: Stories of women with asthma"

Institution: School of Population Health, University of Queensland

Supervisors: Dr Mark Brough, Professor Ian Riley and Professor Lenore Manderson

Nicole Arthur, BA Honours

" 'I guess I am just another person who wants it all' :Young Australian women's aspirations for work marriage and family"

Institution: School of Psychology, University of Queensland

Supervisor: Professor Christina Lee

Current Postgraduate Students

PhD Students

Steven Bowe
Institution: Centre for Clinical Epidemiology and Biostatistics, University of Newcastle

Supervisors: Dr David Sibbritt and Dr Anne Young

Cate France
Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Professor Christina Lee and Dr Sue Outram

Leanne Fray
Institution: Research Centre for Gender and Health, University of Newcastle

Supervisors: Dr Penny Warner-Smith and Dr Kevin Lyons

Lindy Humphreyes-Reid
Institution: School of Population Health, University of Queensland

Supervisors: Professor Annette Dobson and Professor Andrew Wilson

Rosemary Korda
Institution: National Centre for Epidemiology and Population Health, Australian National University

Supervisors: Dr Jim Butler, Dr Mark Clements and Dr Anne Young

Beverley Lloyd
Institution: Department of Public Health and Community Medicine, University of Sydney

Supervisors: Associate Professor Susan Quine and Professor Christina Lee

Liane McDermott
Institution: School of Population Health, University of Queensland

Supervisors: Professor Neville Owen and Professor Annette Dobson

Heather McKay
Institution: Key Centre for Women's Health in Society, University of Melbourne

Supervisors: Dr Jane Fisher and Professor Christina Lee

Afsoon Hassani Mehraban
Institution: Occupational Therapy, University of Newcastle
Supervisors: Professor Julie Byles and Dr Lynette Mackenzie

Rosie Mooney
Institution: School of Social Sciences, University of Newcastle

Supervisors: Dr Ann Taylor and Dr Penny Warner-Smith

Siobhan O'Dwyer
Institution: School of Human Movement, University of Queensland

Supervisors: Professor Wendy Brown and Dr Nancy Pachana

Catherine Regan
Institution: School of Medical Practice and Population Health, University of Newcastle

Supervisors: Professor Julie Byles and Dr David Sibbritt

Ingrid Rowlands
Institution: School of Psychology, University of Queensland

Supervisors: Professor Christina Lee and Dr Nancy Pachana

Nadine Smith
Institution: School of Population Health, University of Queensland

Supervisors: Professor Annette Dobson and Dr Nancy Pachana

Doctor of Psychology

Sally Duncan
Institution: School of Population Health, University of Queensland

Supervisor: Dr Nancy Pachana

Master of Public Health

Karen Furlong
Institution: School of Population Health, University of Queensland

Supervisor: Professor Annette Dobson

The Australian Longitudinal Study on Women's Health: The First Decade

Background

In 1996 over 40,000 Australian women were invited to take part in a long term project which would survey the health of women across the nation, over time. The participants were selected in three age cohorts: younger women aged 18-23, mid-age women aged 45-50, and older women aged 70-75. These groups were deliberately chosen in order to recruit women before they passed through major turning points in women's lives.

The participants remain the same for the duration of the study - intended to be at least 20 years. Women in each age group complete a comprehensive survey on their health every three years, enabling comparisons over time and between age groups.

To date, three surveys have been undertaken and analysed and a fourth is in progress. The results have established the Australian Longitudinal Study on Women's Health (ALSWH, also known as Women's Health Australia) as a valuable national and international research resource providing evidence-based information on women's health issues.

The study is funded by the Australian Government Department of Health and Ageing. Until now, availability of the ALSWH results has been limited to the Department of Health and Ageing, other federal and state government agencies, the Office for Women and relevant non-government organisations such as State Cancer Councils and the National Rural Health Network. The study has given a more solid information base for policy and practice in many areas of health services for Australian women.

With nine years of change now tracked in the surveys, the study is providing insights into major trends in the lives of Australian women.

Did you know?

The project provides the most comprehensive information ever collected on the health and well-being of Australian women.

The combination of a longitudinal design, with comparative data across three age groups, and access to information on health service use, makes the project a world first.

The project has the lowest cost per participant of any current major survey in Australia, or in other comparable countries.

The Survey

The survey covers the main issues that affect the health of women in contemporary Australian society. Questions are chosen to reflect National Health Priorities and social and policy concerns, as well as to add to knowledge of women's well-being throughout the lifespan. The survey takes a comprehensive view of health throughout life, encompassing:

- Physical health (including health-related quality of life, diseases, conditions, symptoms)
- Emotional health (including depression and anxiety, psychotropic medications, stress, positive well-being)
- Use of health services (GPs, specialists)
- Ease of access to health services and satisfaction with services
- Health behaviours and risk factors (such as nutrition, physical activity, smoking, alcohol, other drugs)
- Gynaecological health (including contraception, fertility problems, menopause)
- Time use (including paid and unpaid work, family roles, leisure)
- Socio-demographic factors (including education, employment, household composition)
- Life stages and key events (such as childbirth, divorce, widowhood)

Standard validated questions from both Australian and overseas sources, such as the Australian Census and National Health Survey, are used in the surveys. This allows findings to be compared directly with information from other studies, which is a major strength of the project. The research team has also at times had to develop specific survey items when there were no suitable existing questions, thus contributing further to the international research literature.

Data Linkage

The women who participate in the project were recruited from the name and address database of the Australian Health Insurance Commission (Medicare). This allows routinely collected data on health care services (including Medicare, Pharmaceutical Benefits Scheme records and Department of Veterans' Affairs entitlements) to be linked with the survey data.

The combination of administrative records with self-reports of health and personal circumstances means the study can provide a unique richness of information on factors underlying patterns of health service use.

Linkage to the National Death Index provides information on dates and causes of death which is increasingly valuable as the study progresses.

Sampling

Over 70% of Australian women live in major coastal cities, but rural health is an important policy issue. The project was designed to ensure adequate inclusion of women living in rural and remote areas, by intentional over-sampling of women living in these areas.

Timelines

After Survey 1 of all three cohorts in 1996, the survey is operating on a three-year cycle (see Figure 1). Each year, one cohort receives a survey, while at the same time the survey for the following year is developed and piloted and the responses from the previous year are scanned, cleaned and checked for analysis.

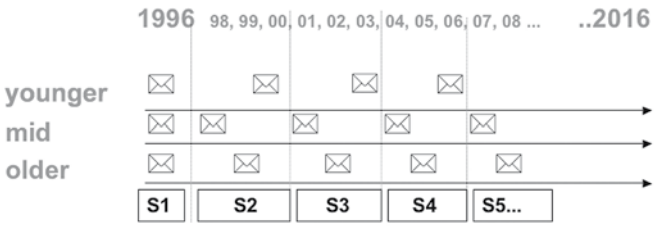


Figure 1. Project Timeline

Three Generations

When the younger women were recruited in 1996 they were aged 18 to 23. The majority of these women were single and still living with one or both parents. The study tracks changes in the health of these women as they make the transitions of early adulthood to independent living, adult relationships, work and motherhood.

The mid-age women were initially aged between 45 and 50. As well as passing through menopause, they are now experiencing changes in household structure, family caregiving and planning for retirement. Some women are showing early signs of age-related physical decline of later life, while others are adopting new health behaviours in preparation for a healthy old age.

The older women were aged between 70 and 75 years when first recruited. They were generally still in good health and able to manage independently. The information they are contributing provides an opportunity to examine predictors of continued healthy and independent living, and conversely to assess factors which lead to disability, dependence and the physical, emotional and social challenges of old age.

Comparisons between the three age cohorts reflect not only the changes associated with ageing, but also the very different life circumstances of three generations of Australian women.

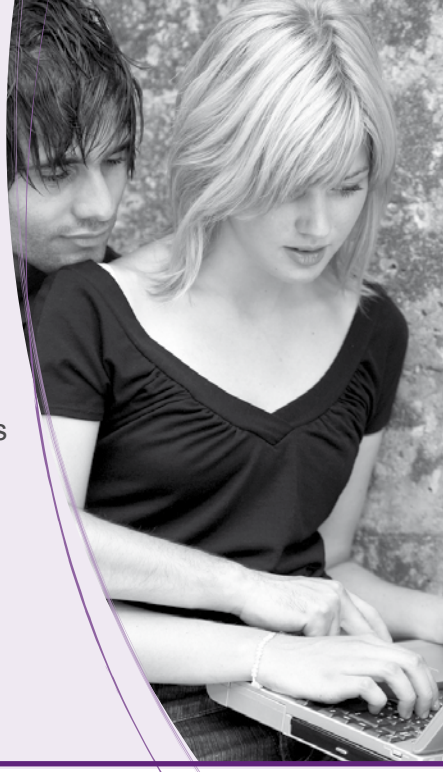
> “I think this is very worthwhile. 3 generations of women in my family (me, my mum and her mum) were all selected in the process at the start what a coincidence, hey! After 16 years you guys will seem like old friends.”

Substudies

Some topics have been researched in greater depth by conducting smaller studies. A number of participants have been invited to complete an additional survey on a specific topic.

Substudies have been undertaken in a variety of ways. They have involved mailed surveys, focus groups, telephone surveys and most recently, palm pilots (hand held digital computers). Substudy topics have included:

- Urinary incontinence
- Weight, nutrition, physical activity and well-being
- The effects of family caregiving on women's health and well-being
- Women's understanding of mental health and preferred treatments
- The aspirations of younger women for work and family
- Weight gain at menopause
- Time use
- Smoking uptake in younger women
- Falls among older women
- Cardiovascular disease
- Domestic violence
- Sleeping difficulties and sleeping medication use
- Diabetes



Staying Involved

The longitudinal design of the study means that the health and lifestyle changes of the same women are documented as they move through major life transitions (such as moving into or out of the workforce, or becoming mothers), change their lifestyles (giving up smoking, cutting back on drinking), or go through physical changes (such as menopause, or developing arthritis). It is vital to the success of the study that the women who were initially selected in 1996 remain involved, and that up-to-date contact details for them are maintained.

Some strategies to ensure that participants are retained include:

- Annual newsletters to thank participants and inform them of study findings
- An up-to-date website with pages specifically designed for participants
- Requests for contact details of family members or others who will know where the participants are if they have moved
- Postal reminders and follow up telephone calls to those who do not respond
- A Freecall number to encourage telephone contact
- Rapid follow-up of returned mail through the White Pages and online electoral rolls
- Use of the National Death Index to identify women who have died between surveys

By international standards, maintenance of the cohorts has been very successful (see Figure 2).

The mid-age cohort has the highest retention rate, with 90% of participants responding at Survey 2 and 83% at Survey 3.

The younger cohort of women are considerably more difficult to track, and the retention rate is much lower with 68% at Survey 2 and 64% at Survey 3. This reflects aspects of their lifestyle such as higher mobility, living in shared housing, travelling overseas or within Australia, and name changes on marriage.

The retention rate amongst the women in the older age group reflects their advancing age as there has been a significant death rate. Excluding these women, the retention rate for this age group was 88% at Survey 2 and 79% at Survey 3.

Younger 18-23 in 1996	N=14,247 at S1 68% retention at S2 64% retention at S3
Mid 45-50 in 1996	N=13,716 at S1 90% retention at S2 83% retention at S3
Older 70-75 in 1996	N=12,432 at S1 88% retention at S2 79% retention at S3

Figure 2. Age Cohorts

Dissemination

Findings of the research are provided to the Australian Government Department of Health and Ageing, and by arrangement to other Federal and State Departments and Offices such as the Office for Women.

Findings are presented at conferences and workshops for academics, professionals and policy-makers, both in Australia and overseas. They are also published in national and international scientific journals.

How Are Women's Lives Changing ?

Some basic things haven't changed over three generations. More than 90% of women still get married and still have children (among younger women who haven't made these changes yet, the vast majority say they want to). But other things have changed radically. In many ways, we cannot compare women from different generations, because their experiences and opportunities are so different. 75% of the younger women have post-secondary educational qualifications, compared with 36% of the mid-age women and16% of the older women. Younger women today tell us they expect to be able to combine paid work and motherhood, and most would also like professional careers.

However, the surveys show marked differences between young urban and young rural women on these issues. Young rural women marry earlier, have larger families, and are less interested in pursuing higher education. They have - and want - lives more like those of their mothers and grandmothers. It is women who live in the cities, or have moved there to work or study, who are delaying childbearing and focusing on careers. These lifestyle differences have implications for health and welfare services in different parts of Australia, now as well as for the future.

Did you know?

91% of the younger women surveyed want to be mothers by the time they are 35. But only 4% plan to be stay-at-home mothers; the rest want to work as well.

Most mid-age women lead busy lives combining paid work, family responsibilities and other valuable roles. But those with multiple work and family roles are in the best physical and emotional health.

Older women who never married or had children are better educated, better off financially, and more likely to be active community volunteers than are others of the same age.

“Thank you for allowing me to take part. I do appreciate the opportunity the survey gives to help all women receive the very best of medical care. You are I believe fulfilling a much needed service for Australian women’s health and wellbeing.”

- Younger woman, Survey 3.

Policy Issues

The ability to explore changes in individual women’s lives has enabled the provision of important information and recommendations.

- Younger women are gaining weight rapidly, and the health problems associated with being overweight will start to appear much earlier than in previous generations, especially in rural areas.
- Being in a violent relationship has adverse effects on younger women’s reproductive health. For example, there is greater risk of unplanned pregnancy or miscarriage.
- Younger women, particularly in the cities, want to combine motherhood with paid work. The challenge is to create situations to allow them to manage this.
- Poor mental health is associated with higher use of all drugs. While sorting out the order of causation requires more longitudinal data, recognition of the strong link should be taken into account in public health action.
- The high rate of relationship breakdown among mid-age women suggests that around a quarter will reach retirement age without partners. The implications of this for finances and lifestyle in older age have important policy implications.
- Many rural women have no access to female medical staff, or to bulk billing doctors, and this may reduce their willingness to seek help for potentially treatable conditions.
- Data collected over six years from a large sample of older women show there is no evidence to support different guidelines for alcohol consumption for older women.
- Hypertension and arthritis are the most common conditions affecting older women. While not life-threatening, stiff and painful joints cause most disability. Prevention and management of bone and joint problems should be regarded as a high priority for public health. Importantly, women should be encouraged to maintain safe and appropriate levels of physical activity.
- Widowhood is associated with poor health and high health service use in the first year or so, after which the health of widowed women becomes comparable with that of other women.
- Although there are relatively fewer providers of specialist care in rural areas, this does not translate into increased patient fees.

“Thanks must go to you guys who have tracked me down three times now despite my moving about. It’s a strangely satisfying feeling to know that I am part of something bigger than me and my world. Also that has lasted longer than any project, job, study or relationship of mine. Keep finding me.”

- Younger woman, Survey 3.

Australian Women & Their Weight: A Growing Problem

Background

Current estimates suggest that 2.4 million Australian adults are obese and a further 4.9 million are overweight, and that levels of obesity among women have doubled in the last 15 years. Most estimates are based on repeated cross-sectional measures (such as the ABS National Health Surveys). There are few prospective data on weight change for individuals in the Australian population. This gap is being filled by participants in the Australian Longitudinal Study on Women's Health who have provided data on height and weight in every survey since the study began in 1996. These data give important insights into changes in weight and body mass index, which will be used to clarify relationships between weight, weight change, body mass index (BMI, and its major determinants - energy intake and energy expenditure) and health and illness over the next few years.

Weight and weight change

The average weight of women in each of the three cohorts (for those who reported their weight at every survey) is shown in Figure 3. In 1996 the younger women had the lowest average weight, 62.6 kg, while the mid-age women were the heaviest with an average of 68.6 kg - a difference of 6kg.

By Survey 3, however, the younger women had gained more weight than the mid-aged women. Average weight was 67.4 kg for the younger group and 71.0 kg for the mid-aged group - a difference of 3.6 kg.

The pattern of weight change was different in the older cohort: their average weight decreased during the first six years of the study.

In all three age cohorts, the weight of women living in rural and remote areas was higher than that of urban women. Young rural women also gained weight faster than any other group.

"In the last survey I completed, I had recently had my first baby. I was about 3-5kgs heavier than pre-pregnancy weight. I joined a gym, ate anything and piled on another 9kg's!!! Nine weeks ago, I changed my eating habits for good . . .

My new eating habits and lifestyle simply incorporate low fat foods, and a knowledge of how low fat, moderate calories and moderate exercise can make the difference . . . I have dropped 3kg's, 3cm's off everything & have more energy. I still go to the gym 3-4 times a week and it is all paying off. By next summer, I hope to wear the swimmers without board shorts. I feel fantastic . . . - perhaps the hardest thing was swapping the full cream milk in coffee to skim milk - but you do get used to it."

> I am generally feeling a lot happier about my health. I've quit smoking after approximately 10 years. On the other hand I have put on almost 10 kilos. I hate this. I never had to worry about weight . . . . . I know that I really need to exercise to maintain my weight, however this is a habit I am having trouble starting. Overall the positives I have done for my health do very much outweigh (joke) the negatives.

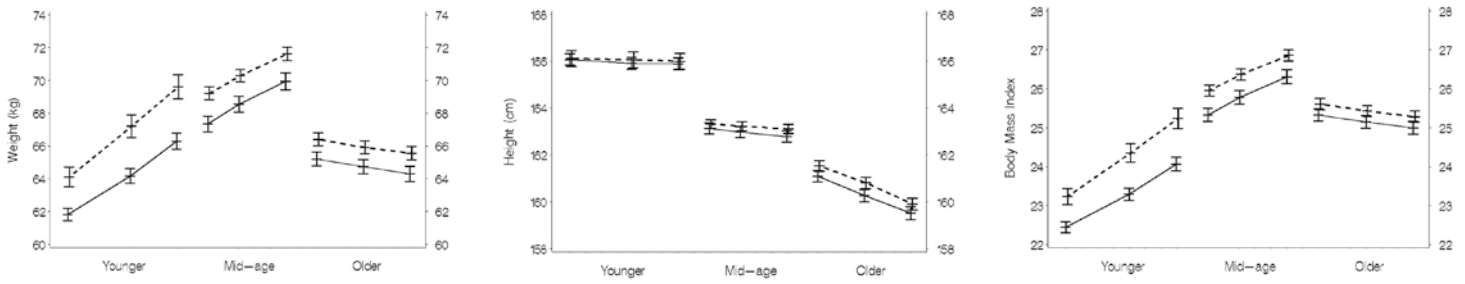


Figure 3: Average weight (left), height (middle) and BMI (right) of women who reported these data at every survey. Solid lines show data from urban women; dashed lines show data from rural/remote women. Data were collected from younger women in 1996, 2000 and 2003; from mid-age women in 1996, 1998 and 2001, and from the older women in 1996, 1999 and 2002. Vertical bars indicate 95% confidence intervals.

Who gains weight?

Longitudinal analyses of weight gain among younger and mid-age women in the ALSWH have shown that weight gain is occurring across all socio-economic groups. After adjustment for all potential confounders, the factors found to be independently associated with weight gain among younger women are shown in Box 1.

Box 1: Factors associated with weight gain among younger women 1996 – 2000

- Having BMI outside the healthy weight range at the beginning of the study in 1996
- Sitting more than 4.5 hours/day
- Eating take away food
- Restrictive eating practices

The association between weight gain and pregnancy in the younger women is currently being investigated, and will become clearer when data from Survey 4 of the younger cohort have been analyzed.

Factors associated with weight gain among the mid-age women are shown in Box 2. The data suggest that some factors other than those traditionally associated with energy balance also contribute to weight gain at this life stage.

Box 2: Weight gain among mid-age women is associated with:

- Quitting smoking
- Hysterectomy
- Menopause
- Low levels of physical activity (less than 150 minutes/week)
- High sitting time (more than 4.5 hours/day)
- Being overweight or obese in 1996, and with high energy intake

> The hours I work plus the time I spend getting to work make it difficult to maintain any decent level of exercise. I leave home at 6.45am and get home around 6pm. It is dark when I get up and dark when I get home. At night I can either prepare a meal or I can have fast food or an instant meal (I don't like either) and go to the pool and do laps. I don't have enough time to do both.

Healthy Ageing

Background

The Australian Longitudinal Study on Women's Health (ALSWH) provides a picture of ageing that challenges negative stereotypes. At the time of the first survey in 1996, the women in the older cohort were aged 70-75 years. These women were selected at random from the population and represented the full range of health and functioning at that age. At this time over one third of the women rated their health as excellent or very good and fewer than five percent rated their health as poor. By Survey 3 in 2002, although the women were aged 76-81, the overall responses on self-rated health were unchanged.

Survey Responses

In this age group, death rates impact on the numbers of survey responses. About 5% of the women have died between successive surveys and 6-7% have withdrawn, in many cases because they were too ill or frail to continue.

The response rate for this cohort is remarkably high, with some women getting help from their families, or even nursing home staff, to complete the surveys. They are also responding well to targeted sub-studies on issues relevant for older women – caring for others; sleep problems; and falls.

"After speaking to my grandmother, her only concern was transport. As she is getting older, her legs become quite sore and so she often puts off going to the city or supermarket (or church). She sometimes catches a taxi but as she receives a pension, she would rather save her money."

- Younger woman responding for her grandmother

> I think that I am in good health for my age (80). Although I am slowing down in the time I do things, like all my housework, gardening and walking, I still feel very fit.

Functional Ability

At Survey 3, most of the women lived in houses (69%), or flats, units or apartments (21%). Fewer than nine percent lived in retirement villages, nursing homes or hostels.

More than 90% of the participants were able to perform independent activities of daily living such as cooking, bathing and dressing. Similarly, 83% reported no difficulty seeing newspaper print (with glasses if necessary); 87% reported no difficulty hearing a conversation (with a hearing aid if necessary); and 88% could bath and dress themselves without being limited by their health.

More than one third of the women said they could walk at least a kilometre, 58% could walk half a kilometre and 73% could walk 100 metres.

Nevertheless, more than half reported difficulties with stairs, or with lifting and carrying groceries.

The most common chronic conditions among women in this age group are hypertension and arthritis (see Figure 4). Among the National Health Priority areas, bone and joint diseases, and heart, stroke and vascular disease (including hypertension) are much more prevalent than diagnoses of diabetes, asthma or cancer.

Healthy Lifestyles

Only about 5% of these older women smoke. Their pattern of alcohol use has hardly changed, with 37% reporting never drinking and 24% rarely drinking. Women who drink do so most days per week and have better health than the non-drinkers.

While levels of physical activity have decreased, at Survey 3, 34% of the women reported taking moderate exercise every day of the week. Also, 42% maintained a healthy weight while 33% were classified as overweight.

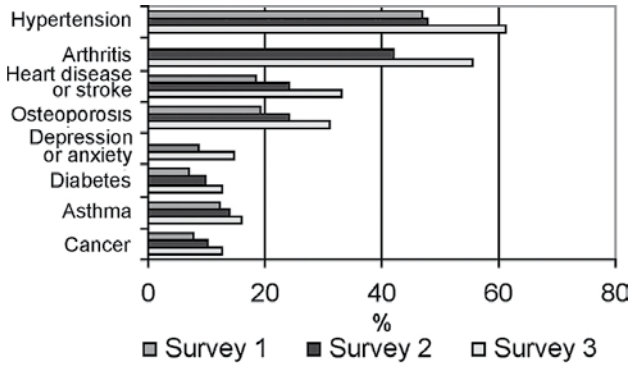


Figure 4. Prevalence of selected conditions at Survey 1 when the women were aged 70-75, Survey 2 when they were aged 73-78 and Survey 3 when they were aged 76-81 years (for women who responded to all three surveys; not all conditions were asked about at all surveys)

Widowhood

At the beginning of the Study, 58% of the women were married while 35% were already widowed – see Figure 5. The proportion of widows rose to 40% by Survey 2 and 47% by Survey 3.

For many of these older women, taking care of a sick husband and coping with widowhood have been the major factors affecting their health and social circumstances over the six years of surveys so far. Recently widowed women have significantly poorer physical and mental health than married women, but self-reported health generally returns to normal among those who have been widowed for longer than 12 months.

> “For the last 4 years I have cared for my dear husband who had a leg off and needed some help. Although it was amazing how much he could do, but after a little over 60 years of marriage I lost him a few weeks ago and I am so lonely now but I see other widows and they have got over it. I know I must be able to in time.”

Daily Living

Most of the women (83% at Survey 3) receive a government pension or other allowance. Only 18% had any superannuation although 34% had some other sources of income. Most described managing on their income as “easy” (24%) or “not too bad” (52%).

At this stage of their lives the women reported that driving themselves (51%) and being driven by someone else (29%) were their main means of transport. Relatively few relied on public transport: 23% in urban areas and only 5-10% in rural and remote areas.

Although 48% said they lived alone, most of the women reported active social lives at Survey 3.

In the last week:
- 93% spent time with people outside their households
- 98% talked on the telephone
- 67% went to meetings or clubs

In addition:
- 43% undertook volunteer work
- 39% cared for children

More than half of the women had help with odd jobs. Nevertheless, only a minority of women used community services:
- Use of respite, nursing or community health services increased from 7% at Survey 2 to 10% at Survey 3
- Use of homemaking services increased from 8% to 15%

Caring

Many women in this age group make valuable contributions to family and society. Family caregiving, the home-based care of frail, ill or disabled family members, is an important aspect of some older women’s lives. The percentage of women providing at least some family caregiving rose from 17% at Survey 1 to 20% at Survey 2 and 25% at Survey 3. The percentage who provided volunteer services outside the family remained steady at around 47% across all three surveys.

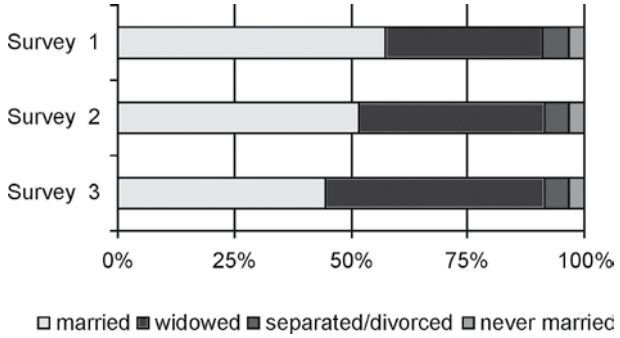


Figure 5. Changes in Marital Status (for women who responded to Surveys 1, 2 and 3)

Younger Women
Tobacco, Alcohol & Other Drugs

Background

There is public concern about young women's use of tobacco, alcohol and other recreational drugs. In particular, there is a perception that it is increasing, and there is apprehension about potential long term consequences.

The Australian Longitudinal Study on Women's Health supports concerns that tobacco continues to pose a major challenge to women's health. Evidence from the Study suggests that inappropriate use of alcohol and other drugs is relatively uncommon and is often limited to a brief period in young women's lives. Nevertheless it has the potential for serious long-term consequences.

ALSWH surveys include a cohort of younger women, who were aged 18-23 when the Study began in 1996, and have now been surveyed three times (1996, 2000, 2003). The surveys have included questions about their use of tobacco and alcohol. After the first survey, once trust with the research team was established, questions were added about their use of marijuana, heroin, ecstasy and other party drugs.

Tobacco & Alcohol Use

Almost 60% of the younger ALSWH women have never been smokers. Of those that have ever smoked, 12% had already given up before Survey 1 and this percentage increased to 19% by Survey 3. By Survey 3, less than one quarter (24.5%) remained smokers. Although some women first took up smoking between Surveys 1 and 2 (3.5%), very few did so between Surveys 2 and 3. In contrast, quitting increased.

At every survey most of the young women reported rarely drinking, or drinking at "low risk" according to the Australian Guidelines. The percentage of non-drinkers was 8-9% at all Surveys. At Survey 1, when the women were aged 18-23, 5.6% met the criteria of risky or high risk drinking, but this declined to 3.6% by Survey 3. The main change between surveys was a gradual increase from rarely drinking (which could include heavy drinking occasionally) to low risk drinking (which could include drinking more often but in lower quantities). (See Figure 6).

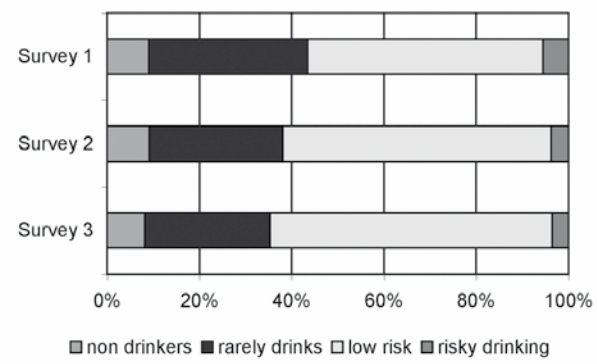
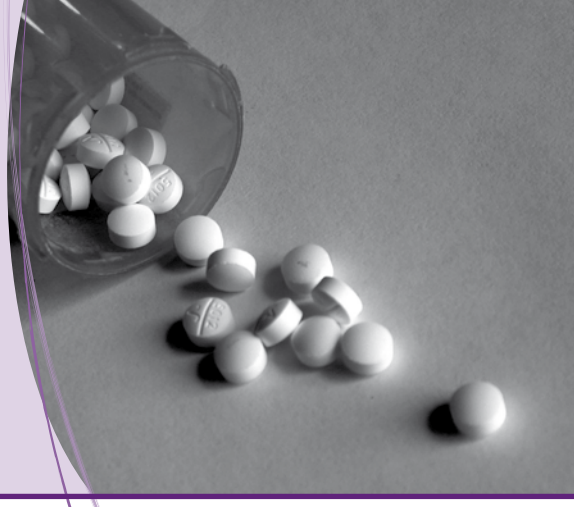


Figure 6. Alcohol use among young women at Survey 1 in 1996, Survey 2 in 2000 and Survey 3 in 2003

“It’s toned down a lot now. … I think that you start to put into check a lot more what you want out of life … I think now, myself and most of my friends who are my age are thinking ‘we really need to quit now’ before it gets to a point where you can’t or you want to have kids … so it’s more looking towards quitting, cutting down, smoking much weaker cigarettes and just trying to be a little healthy with it.”



Use of marijuana and other recreational drugs

At Survey 2, when the women were first asked about their use of marijuana and other recreational drugs, 43.5% said they had never used them. Almost all women who had ever used recreational drugs had used marijuana, but the numbers using any single drug other than marijuana were very small, so they were grouped together as “multiple/other drug” users. At Survey 3, the percentage who had never used drugs dropped to 38.1% while the percentage who had used marijuana or other drugs but not in the last 12 months increased, indicating that more than 10% had tried drugs for the first time during this period but had not used drugs recently. By Survey 3 only 5.7% reported using marijuana in the last 12 months and another 15.4% reported using other drugs (See figure 7).

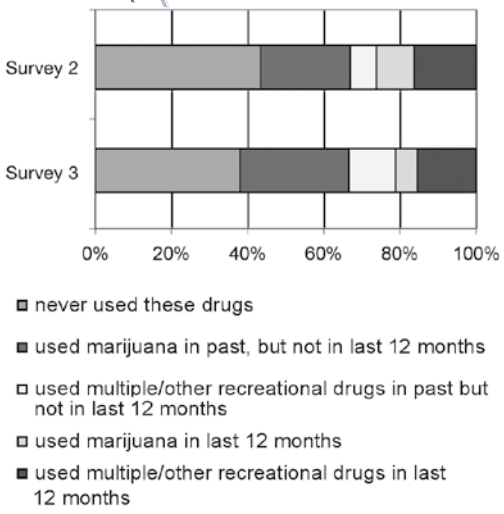


Figure 7. Use of marijuana and other recreational drugs between Survey 2 in 2000 and Survey 3 in 2003

Factors that affect younger women’s use of alcohol - evidence from the ALSWH

- Social settings and social networks strongly influence drinking patterns
- Use of tobacco, as well as marijuana and other recreational drugs, is associated with short-term high risk drinking
- Heavy drinking is more common among women living in rural and remote areas than in major cities
- When women move from living alone or in shared accommodation to living with their partners, their drinking patterns become less hazardous

“I smoked marijuana daily for around 8 years, I then suffered from anxiety and stopped working for 2 months due to the anxiety. I gave up the marijuana and caffeine in the last 2 months which has stopped the anxiety and I changed and found a happier job.”

Factors that affect younger women’s smoking - evidence from the ALSWH

- Social settings, especially clubs and pubs, promote cigarette smoking
- Social networks, including workplaces, families and partners, create bonds that can either promote and reinforce the use of tobacco, or act to control smoking
- Many girls and young women are afraid of becoming addicted to tobacco
- Smoking during pregnancy is very widely disapproved of
- 1/4 to 1/2 of women who smoke give up when they become (or plan to become) pregnant
- Smoking around children is becoming socially unacceptable, both due to the effects of passive smoking on the child’s health and because it sets a bad example to children

Study Publications

Journal Articles

1996

- Brown WJ, Bryson L, Byles JE, Dobson AJ, Manderson L, Schofield M & Williams G. Women's Health Australia: establishment of the Australian Longitudinal Study On Women's Health. *Journal of Women's Health,* 1996; 5(5): 467-472.

1997

- Dobson A, Mishra G, Brown W & Reynolds R. Food habits of young and middle-aged women living outside the capital cities of Australia. *Australian and New Zealand Journal of Public Health,* 1997; 21(7): 711-715.

1998

- Kenardy J & Ball K. Disordered eating, weight dissatisfaction and dieting in relation to unwanted childhood sexual experiences in a community sample. *Journal of Psychosomatic Research,* 1998; 44(3/4): 327-337.
- Young AF, Byles JE & Dobson AJ. Women's satisfaction with general practice consultations. *Medical Journal of Australia,* 1998; 168: 386-389.
- Patterson AJ, Brown WJ & Roberts DCK. Development, prevention and treatment of iron deficiency in women. *Nutrition Research,* 1998; 18(3): 489-502.
- Schofield MJ & Mishra G. Validity of the SF-12 compared with the SF-36 health survey in pilot studies of the Australian Longitudinal Study on Women's Health. *Journal of Health Psychology,* 1998; 3(2): 259-271.
- Mishra G & Schofield MJ. Norms for the physical and mental health component summary scores of the SF-36 for young, middle and older Australian women. *Quality of Life Research,* 1998; 7(3): 215-220.
- Brown WJ, Dobson AJ & Mishra G. What is a healthy weight range for middle aged women? *International Journal of Obesity,* 1998; 22: 520-528.
- Bryson L & Warner-Smith P. Choice of GP: who do young rural women prefer? *Australian Journal of Rural Health,* 1998; 6: 144-149.
- Brown WJ, Ball K & Powers J. Is life a party for young women? *ACHPER Healthy Lifestyles Journal,* 1998; 45(3): 21-26.
- Bryson L & Warner-Smith P. Employment and women's health. *Just Policy,* 1998; 14: 3-14.
- Harris MA, Byles JE, Mishra G & Brown WJ. Screening for cervical cancer: health care, isolation and social support. *Health Promotion Journal of Australia,* 1998; 8(30): 167-172.
- Brown WJ, Bryson L, Byles JE, Dobson AJ, Lee C, Mishra G & Schofield M. Women's Health Australia: recruitment for a national longitudinal cohort study. *Women and Health,* 1998; 28(1): 23-40.
- Bryson L. The Women's Health Australia project and policy development. *Australian Journal of Primary Health - Interchange,* 1998; 4(3): 59-71.

1999

- Chiarelli P & Brown W. Leaking urine in Australian women: prevalence and associated conditions. *Women and Health,* 1999; 29(1): 1-12.

- Byles JE, Feldman S & Mishra G. For richer, for poorer, in sickness and in health: older widowed women's health, relationships and financial security. *Women and Health,* 1999; 29(1): 15-29.
- Ball K, Lee C, & Brown W. Psychological stress and disordered eating: an exploratory study with young Australian women. *Women and Health,* 1999; 29(2): 1-15.
- Dobson AJ, Brown W, Ball J, Powers J & McFadden M. Women drivers' behaviour, socio-demographic characteristics and accidents. *Accident, Analysis and Prevention,* 1999; 31: 525-535.
- Brown P & Brown WJ. Women and leisure: does all work and no play make Jill unwell? *World Leisure and Recreation,* 1999; 41(1): 11-14.
- Brown WJ, Young AF & Byles JE. Tyranny of distance? The health of mid-age women living in five geographical areas of Australia. *Australian Journal of Rural Health,* 1999; 7: 148-154.
- Bryson L, Brown W & Strazzari S. Shaping families: women, control and contraception. *Family Matters,* 1999; 53: 31-38.
- Brown WJ, Dobson AJ, Bryson L & Byles JE. Women's Health Australia: on the progress of the main cohort studies. *Journal of Women's Health & Gender-based Medicine,* 1999; 8(5): 681-688.
- Ball K, Kenardy J & Lee C. Relationships between disordered eating and unwanted sexual experiences: a review. *Australian Psychologist,* 1999; 34(3): 166-176.
- Brown WJ, Fuller B, Lee C, Cockburn J & Adamson L. Never too late: older people's perceptions of physical activity. *Health Promotion Journal of Australia,* 1999, 9(1): 55-63.
- Chiarelli P, Brown WJ & McElduff P. Leaking urine - prevalence and associated factors in Australian women. *Neurourology and Urodynamics,* 1999, 18(6): 567-577.
- Lee C. Health habits and psychological functioning among young, middle-aged and older Australian women. *British Journal of Health Psychology,* 1999; 4: 301-314.
- Goodger B, Byles J, Higganbotham N & Mishra G. Assessment of a short scale to measure social support among older people. *Australian and New Zealand Journal of Public Health,* 1999; 23(3): 260-265.
- Byles J. Over the hill and picking up speed: older women of the Australian Longitudinal Study on Women's Health. *Australasian Journal on Ageing,* 1999; 18(3): 55-62.

2000

- Ball K & Lee C. Relationships between psychological stress, coping and disordered eating: a review. *Psychology and Health,* 2000; 14: 1007-1035.
- Jonas HA, Dobson AJ & Brown WJ. Patterns of alcohol consumption in young Australian women: associations with sociodemographic factors, lifestyle, health practices and physical health. *Australian and New Zealand Journal of Public Health,* 2000; 24(2): 185-191.
- Chiarelli P, Brown W & McElduff P. Constipation in Australian women: prevalence and associated factors. *International Urogynecology Journal,* 2000; 11(2): 71-78.
- Lee C, Dobson A, Brown W, Adamson L & Goldsworthy J. Tracking participants. Lessons from the Women's Health Australia project. *Australian and New Zealand Journal of Public Health,* 2000; 24(3): 334-336.
- Mishra G, Dobson A & Schofield M. Cigarette smoking, menstrual symptoms and miscarriage among young women. *Australian and New Zealand Journal of Public Health,* 2000; 24(4): 413-420.
- Schofield MJ, Minichiello V, Mishra G, Plummer D & Savage J. Sexually transmitted infections and use of sexual health services among young Australian women: Women's Health Australia study. *International Journal of STD & AIDS,* 2000; 11: 313-323.

- Brown WJ, Mishra G, Lee C & Bauman A. Leisure time physical activity in Australian women: relationship with well-being and symptoms. *Research Quarterly for Exercise and Sport,* 2000; 71(3): 206-216.
- Powers J, Ball J, Adamson L & Dobson A. Effectiveness of the National Death Index for establishing the vital statistics of older women in the Australian Longitudinal Study on Women's Health. *Australian and New Zealand Journal of Public Health,* 2000; 24: 526-528.
- Young AF, Dobson AJ & Byles J. Access and equity in the provision of general practitioner services in Australia. *Australian and New Zealand Journal of Public Health,* 2000; 24: 474-480.
- Brown WJ & Bauman A. Comparison of estimates of population levels of physical activity using two measures. *Australian and New Zealand Journal of Public Health,* 2000; 24: 520-525.
- Byles JE, Mishra G & Schofield M. Factors associated with hysterectomy among women in Australia. *Health and Place: An International Journal,* 2000; 6: 301-308.
- Patterson AJ, Brown WJ, Powers JR & Roberts DCK. Iron deficiency, general health and fatigue: results from the Australian Longitudinal Study on Women's Health. *Quality of Life Research,* 2000; 9: 491-497.
- Brown WJ, Mishra G, Kenardy J & Dobson AJ. Relationships between body mass index and well-being in young Australian women. *International Journal of Obesity,* 2000; 24(10): 1360-1368.
- Feldman S, Byles JE & Beaumont R. "Is anybody listening?": the experiences of widowhood for older Australian women. *Journal of Women & Aging,* 2000; 12: 155-176.
- Rutnam R, Martin-Murray S & Smith N. Using research to assist women with disabilities in Australia. *Australian Social Policy,* 2000; 1: 91-99.
- Rose G & Manderson L. More than a breath of difference: Competing paradigms of asthma. *Anthropology & Medicine,* 2000; 7(3): 335-350.
- Hodge A, Patterson A, Brown W, Ireland P & Giles G. The Anti Cancer Council of Victoria FFQ. Relative validity of nutrient intakes compared with diet diaries in young to middle-aged women in a study of iron supplementation. *Australian and New Zealand Journal of Public Health,* 2000, 24(6): 576-583.

2001

- Brown PR, Brown WJ & Powers JR. Time pressure, satisfaction with leisure and health among Australian women. *Annals of Leisure Research,* 2001; 4: 1-18.
- Hasan S, Byles JE, Mishra G & Harris MA. Use of sleeping medication, and quality of life, among older women who report sleeping difficulty. *Australasian Journal on Ageing,* 2001; 20(1): 29-35.
- Lee C. Experiences of family caregiving among older Australian women. *Journal of Health Psychology,* 2001; 6: 393-404.
- Patterson AJ, Brown WJ & Roberts DCK. Dietary and supplement treatment of iron deficiency results in improvements in general health and fatigue in Australian women of childbearing age. *Journal of the American College of Nutrition,* 2001; 20(4): 337-342.
- Warner-Smith P & Lee C. Hopes and fears: the life choices, aspirations and well-being of young rural women. *Youth Studies Australia,* 2001; 20(3): 32-37.
- Kenardy J, Brown WJ & Vogt E. Dieting and health in young Australian women. *European Eating Disorders Review,* 2001; 9: 242-254.
- Patterson AJ, Brown WJ & Roberts DCK. Dietary and lifestyle factors influencing iron stores in Australian women: An examination of the role of bioavailable dietary iron. *Australian Journal of Nutrition and Dietetics,* 2001; 58(2): 107-113.

- Doran CM, Chiarelli P & Cockburn J. Economic costs of urinary incontinence in community-dwelling Australian women. *Medical Journal of Australia,* 2001; 174(9): 456-458.
- Young AF, Dobson AJ & Byles JE. Health services research using linked records: who consents and what is the gain? *Australian and New Zealand Journal of Public Health,* 2001; 25(5):417-420.
- Mishra GD, Ball K, Dobson AJ, Byles JE & Warner-Smith P. The measurement of socio-economic status: investigation of gender and age-specific indicators in Australia: National Health Survey 1995. *Social Indicators Research,* 2001; 56: 73-89.
- Young AF, Dobson AJ & Byles JE. Determinants of general practitioner use among women in Australia. *Social Science and Medicine*, 2001; 53(12): 1641-1651.
- Patterson AJ, Brown WJ, Roberts DCK & Seldon MR. Dietary treatment of iron deficiency in women of childbearing age. *American Journal of Clinical Nutrition,* 2001; 74: 650-656.
- Warner-Smith P & Imbruglia C. Motherhood, employment and health: is there a deepening divide between women. *Just Policy,* 2001; 24: 24-32.
- Bryson L. Motherhood and gender relations: where to in the twenty-first century? *Just Policy,* 2001; 24: 12-23.

2002

- Ball K & Lee C. Psychological stress, coping and symptoms of disordered eating in a community sample of young Australian women. *International Journal of Eating Disorders,* 2002; 31: 71-81.
- Brown WJ & Miller YD. Too wet to exercise? Leaking urine as a barrier to physical activity in women. *Journal of Science and Medicine in Sport,* 2002; 4(4): 373-378.
- Patterson AJ, Young AF, Powers JR, Brown WJ & Byles JE. Relationships between nutrition screening checklists and the health and well being of older Australian women. *Public Health Nutrition,* 2002; 5(1): 65-71.
- Lee C & Porteous J. Experiences of family caregiving among middle-aged Australian women. *Feminism and Psychology,* 2002; 12(1): 79-96.
- Warner-Smith P & Brown P. 'The town dictates what I do': the leisure, health and wellbeing of women in a small country town. *Leisure Studies,* 2002; 21(1): 39-56.
- Brown WJ, Mishra GD & Dobson AJ. Changes in physical symptoms during the menopause transition. *International Journal of Behavioral Medicine,* 2002; 9(1): 53-67.
- Hussain R, Schofield M & Loxton D. Cosmetic surgery history and health service use in midlife: Women's Health Australia. *Medical Journal of Australia,* 2002; 176: 576-579.
- Schofield M, Hussain R, Loxton D & Miller Z. Psychosocial and health behavioural covariates of cosmetic surgery: Women's Health Australia study. *Journal of Health Psychology,* 2002; 7(4): 445-457.
- Ball K & Kenardy J. Body weight, body image and eating behaviours: relationships with ethnicity and acculturation in a community sample of young Australian women. *Eating Behaviors,* 2002; 3(3): 205-216
- Parker G & Lee C. Predictors of physical and emotional health in a sample of abused Australian women. *Journal of Interpersonal Violence,* 2002; 17(9): 987-1001.
- Bell S & Lee C. Development of the perceived stress questionnaire for young women. *Psychology, Health and Medicine,* 2002; 7(2): 189-201.
- Feldman S, Byles J, Mishra G & Powers J. The health and social needs of recently widowed older women in Australia. *Australasian Journal on Ageing,* 2002; 21(3): 135-140.

- Mishra GD, Ball K, Dobson AJ, Byles JE & Warner-Smith P. Which aspects of socioeconomic status are related to health in mid-aged and older women? *International Journal of Behavioral Medicine,* Special Issue on Women's Health, 2002; 9(3): 263-285.
- Lee C & Powers JR. Number of social roles, health and well-being in three generations of Australian women. *International Journal of Behavioural Medicine,* 2002; 9(3): 195-215.
- Mishra G, Lee C, Brown W & Dobson A. Menopausal transitions, symptoms and country of birth: The Australian Longitudinal Study on Women's Health. *Australian and New Zealand Journal of Public Health,* 2002; 26(6): 563-570.
- Ball K, Brown W & Crawford D. Who does not gain weight? Prevalence and predictors of weight maintenance in young women. *International Journal of Obesity,* 2002; 26: 1570-1578.
- Parker G & Lee C. Violence and abuse: an assessment of Mid-aged Australian women's experiences. *Australian Psychologist,* 2002; 37(2): 142-148.
- Warner-Smith P & Mishra G. 'Happy hours': Women's wellbeing and their satisfaction with hours of paid work. *Health Sociology Review,* 2002; 11(1&2): 39-48.
- Schofield MJ, Reynolds R, Mishra G, Powers J & Dobson AJ. Screening for vulnerability to abuse among older women: Women's Health Australia study. *Journal of Applied Gerontology,* 2002; 21(1): 24-39.

2003

- Young AF & Dobson AJ. The decline in bulk billing and increase in out-of-pocket costs for general practice consultations in rural areas of Australia, 1995-2001. *Medical Journal of Australia,* 3 February 2003; 178: 122-126.
- Schofield MJ & Mishra GD. Validity of self-report screening scale for elder abuse: Women's Health Australia study. *The Gerontologist,* 2003; 43(1):110-120.
- Miller YD, Brown WJ, Smith N & Chiarelli P. Managing urinary incontinence across the lifespan. *International Journal of Behavioral Medicine,* 2003; 10(2): 143-161.
- Bell S & Lee C. Perceived stress revisited: the Women's Health Australia project Young cohort. *Psychology, Health and Medicine,* 2003; 8(3): 343-353.
- Lee C & Russell A. Effects of physical activity on emotional well-being among older Australian women: cross-sectional and longitudinal analyses. *Journal of Psychosomatic Research,* 2003; 54: 155-160.
- Mishra GD, Brown WJ & Dobson AJ. Physical and mental health: Changes during menopause transition. *Quality of Life Research,* 2003; 12(4): 405-412.
- Powers JR & Young AF. Beware mixing mail and telephone administration of surveys. *Australian Epidemiologist,* 2003; 10(2): 41-44.
- Sibbritt D, Adams J, Easthope G & Young A. Complementary and alternative medicine (CAM) use among elderly Australian women who have cancer. *Supportive Care in Cancer,* 2003; 11: 548-550.
- Adams J, Sibbritt D, Easthope G & Young A. The profile of women who use complementary and alternative medicine (CAM) in Australia. *The Medical Journal of Australia,* 2003; 179(6): 297-300.
- Byles JE, Mishra GD, Harris MA & Nair K. The problems of sleep for older women: changes in health outcomes. *Age and Aging,* 2003; 32(2): 154-163.
- Miller YD, Brown WJ, Chiarelli P & Russell A. Urinary incontinence across the lifespan. *Neurourology and Urodynamics,* 2003; 22: 550-557.
- Turner C, Russell A & Brown W. Prevalence of illicit drug use in young Australian women, patterns of use and associated risk factors. *Addiction,* 2003; 98: 1419-1426.

- Strodl E, Kenardy J & Aroney C. Perceived stress as a predictor of the self-reported new diagnosis of symptomatic CHD in older women. *International Journal of Behavioral Medicine,* 2003; 10(3): 205-220.
- Brown WJ & Trost SG. Life transitions and changing physical activity patterns in young women. *American Journal of Preventive Medicine,* 2003; 25(2): 140-143.
- Hillier L, De Visser R, Kavanagh A & McNair R. The association between licit and illicit drug use and sexuality in young Australian women. *Medical Journal of Australia,* 2003; 179(6): 326-327.
- Grove N, Brough M, Canuto C & Dobson A. Aboriginal and Torres Stait Islander health research and the conduct of longitudinal studies: issues for debate. *Australian and New Zealand Journal of Public Health,* 2003; 27(6): 637-641.
- Powers JR, Young AF, Russell A & Pachana NA. Implications of non-response of older women to a short form of the Center for Epidemiologic Studies Depression Scale. *International Journal of Aging and Human Development,* 2003; 57(1): 37-54.
- Cartwright S & Warner-Smith P. 'Melt down': Young women's talk of time and its implications for health, well-being and identity in late modernity. *Annals of Leisure Research,* 2003; 6(4): 319-338.

2004

- Guillemin M. Understanding illness: Using drawings as research method. *Qualitative Health Research,* 2004; 14(2): 272-289.
- Lee C, Mishra G & Kuh D. Country of birth, country of residence, and menopausal transitions and symptoms: British birth cohort and Australian Longitudinal Study on Women's Health. *Australian and New Zealand Journal of Public Health,* 2004; 28(2): 144-151.
- Guillemin M. Embodying heart disease through drawings. *Health: an interdisciplinary journal for the social study of health, illness and medicine,* 2004; 8(2): 223-239.
- Outram S, Murphy B & Cockburn J. Factors associated with accessing professional help for psychological distress in midlife Australian women. *Journal of Mental Health,* 2004; 13(2): 185-195.
- Warner-Smith P, Bryson L & Byles J. The big picture: The health and wellbeing of three generations of women in rural and remote areas of Australia. *Health Sociology Review,* 2004; 13(1): 15-26.
- Guillemin M. Heart disease and mid-age women: Focusing on gender and age. *Health Sociology Review,* 2004; 13(1): 7-13.
- Mishra GD, Ball K, Dobson AJ & Byles JE. Do socio-economic gradients in women's health widen over time and with age? *Social Science and Medicine,* 2004; 58: 1585-1595.
- Ball K, Mishra GD, Thane CW & Hodge A. How well do Australian women comply with dietary guidelines? *Public Health Nutrition,* 2004; 7(3): 443-452.
- Ball K, Crawford D & Kenardy J. Longitudinal relationships among overweight, life satisfaction and aspirations in young women. *Obesity Research,* 2004; 12(6): 1019-1030.
- Powers JR, Goodger B & Byles JE. Assessment of the abbreviated Duke Social Support Index in a cohort of older Australian women. *Australasian Journal on Ageing,* 2004; 23(2): 71-76.
- Mishra GD, Brown WJ & Dobson AJ. Changes in physical and mental health around menopause. *Menopause Digest,* 2004; 16(3): 26-29. (Extended abstract from: 2004; 23(2): 71-76).
- Schofield MJ & Mishra GD. Three year health outcomes among older women at risk of elder abuse: Women's Health Australia. *Quality of Life Research,* 2004; 13(6): 1043-1052.

- McDermott LJ, Dobson AJ & Russell A. Changes in smoking behaviour among young women over life stage transitions. *Australian and New Zealand Journal of Public Health,* 2004; 28(4): 330-335.
- Taft A, Watson L & Lee C. Violence against young Australian women and association with reproductive events: A cross sectional analysis of a national population sample. *Australian and New Zealand Journal of Public Health,* 2004; 28(4): 324-329.
- Loxton D, Schofield M & Hussain R. History of domestic violence and health service use among mid-aged Australian women. *Australian & New Zealand Journal of Public Health,* 2004; 28(4): 383-388.
- Outram S, Murphy B & Cockburn J. The role of general practitioners in treating psychological distress: A study of midlife Australian women. *Family Practice,* 2004; 21(3): 276-281.
- Larson A, Bell M & Young AF. Clarifying the relationships between health and residential mobility. *Social Science and Medicine,* 2004; 59(10): 2149-2160.
- Young AF, Russell A & Powers JR. The sense of belonging to a neighbourhood: can it be measured and is it related to health and well being in older women? *Social Science and Medicine,* 2004; 59(12): 2627-2637.
- Smith N, Young A & Lee C. Optimism, health-related hardiness and well-being among older Australian women. *Journal of Health Psychology,* 2004; 9:741-752.
- France C , Lee C & Powers J. Correlates of depressive symptoms in a representative sample of young Australian women. *Australian Psychologist,* 2004; 39(3): 228-237.
- Mishra G & Dobson AJ. Multiple imputation for body mass index: lessons from the Australian Longitudinal Study on Women's Health. *Statistics in Medicine,* 2004; 23, 3077-3087.
- Outram S, Schofield M & Mishra G. Sociodemographic and health related factors related to poor mental health in midlife Australian women. *Women & Health,* 2004; 39 (4): 97-115.
- MacKenzie L, Byles J & Mishra G. An occupational focus on falls with serious injury among older women in Australia. *Australian Occupational Therapy Journal,* 2004; 51 (3): 144-154.

2005

- Mishra G, Ball K, Patterson A, Brown W, Hodge A & Dobson A. Socio-demographic inequalities in the diets of mid-aged Australian women. *European Journal of Clinical Nutrition,* 2005; 59(2): 185-195.
- Lee C. Introduction: Policy, women's lives, women's futures. Editorial. *Just Policy Special Issue 1 Australian Women Facing the Future: Is the Intergenerational Report Gender Neutral?,* 2005; 35: 4.
- Loxton D. What future? The long term implications of sole motherhood for economic well-being. *Just Policy Special Issue 1 Australian Women Facing the Future: Is the Intergenerational Report Gender Neutral?,* 2005; 35: 39-44.
- Lee C, Johnson C & Chiarelli, P. Women's Waterworks: Evaluating an early intervention for incontinence among adult women. *Australian and New Zealand Continence Journal*, 2005; 11(1): 11-16.
- Wade T & Lee C. The impact of breast cancer on the lives of middle-aged women: Results from the Australian Longitudinal Study on Women's Health. *Health Psychology,* 2005; 24(3): 246-251.
- McNair R, Kavanagh A, Aguis P & Tong B. The mental health status of young adult and mid-life non-heterosexual Australian women. *Australian New Zealand Journal of Public Health,* 2005; 29(3): 265-271.
- Khan A, Hussain R, & Schofield M. Correlates of sexually transmitted infections in young Australian women. *International Journal of STD & AIDS,* 2005; 16(7): 482-487.
- Adamson L, Chojenta C & Lee C. Letter to the Editor: Telephone contact of existing participants in longitudinal surveys. *Australian and New Zealand Journal of Public Health,* 2005; 29(2): 188.

- Miller-Lewis L, Wade T & Lee C. Risk factors for pregnancy and childbearing in single young women: Evidence from the Australian Longitudinal Study on Women's Health. *International Journal of Behavioral Development,* 29, 292-303.
- Bell, S. & Lee, C. Emerging adulthood and patterns of physical activity among young Australian women. *International Journal of Behavioral Medicine,* 2005; 12(4): 227-235.
- Dobson A, Smith N & Pachana N. Some problems with life event lists and health outcomes. *International Journal of Behavioral Medicine,* 2005; 12(3): 199-205.
- Sibbritt DW, Adams J & Young AF. A longitudinal analysis of Mid-age women's use of complementary and alternative medicine (CAM) in Australia, 1996-1998. *Women & Health,* 2005; 40(4): 41-56.
- Lawlor DA, Tooth L, Lee C & Dobson A. A comparison of the association between socioeconomic position and cardiovascular disease risk factors in three age cohorts of Australian women: findings from the Australian Longitudinal Study of Women's Health. *Journal of Public Health,* 2005.
- Young A, Lowe J, Byles J & Patterson A. Trends in health service use for women in Australia with diabetes. Australian and New Zealand *Journal of Public Health,* 2005; 29: 422-428.
- Brown P, Byles JE, Mishra GD, Harris MA. The experience of insomnia among older women. *Sleep,* 2005; 28(9):699-706.
- Lee C, Dobson AJ, Brown WJ, Bryson L, Byles J, Warner-Smith P & Young AF. Cohort profile: The Australian Longitudinal Study on Women's Health. *International Journal of Epidemiology,* 2005; 34: 987-991.
- Brown WJ, Williams L, Ford JH, Ball K & Dobson AJ. Identifying the 'energy gap': Magnitude and determinants of five year weight gain in mid-age women. *Obesity Research,* 2005; 13: 1431-1441.
- Ball K & Mishra GD. Whose socioeconomic status influences a woman's obesity risk: her mother's, her father's or her own? *International Journal of Epidemiology,* 2005.
- Adams J, Sibbritt D & Young AF. Naturopathy / herbalism consultations by mid-aged Australian women who have cancer. *European Journal of Cancer Care,* 2005; 14: 443-447
- Powers JR, Mishra G & Young AF. Differences in mail and telephone responses to self-rated health: Use of multiple imputation in correcting for response bias. *Australian and New Zealand Journal of Public Health,* 29(2):149-154.

In press

- Miller-Lewis L, Wade T, Lee C. Psychosocial risk factors for pregnancy risk-taking in young women in emerging adulthood: Preliminary evidence from the Australian Longitudinal Study on Women's Health. *Australian Journal of Psychology.*
- Bell S & Lee C. Transitions in emerging adulthood and stress among young Australian women. *International Journal of Behavioral Medicine.*
- Loxton D, Schofield M, Hussain R & Mishra G. History of domestic violence and physical health in mid-life. *Violence Against Women.*
- Pachana NA, Ford JH, Andrew B, Dobson AJ. Relationships between companion animals and self-reported health in older women: cause, effect or artifact? *International Journal of Behavioral Medicine.*
- Loxton D, Schofield M & Hussain R. Psychological health in mid-life among women who have ever lived with a violent partner or spouse. *Journal of Interpersonal Violence.*
- Lee C & Gramotnev H. Motherhood plans among young Australian women: Who wants children these days? *Journal of Health Psychology.*
- Bell S & Lee C. Does timing and sequencing of transitions to adulthood make a difference? Stress, smoking and physical activity among young Australian women. *Social Science and Medicine.*
- Brown WJ, Ford JH, Burton NW, Marshall AL & Dobson AJ. Prospective study of physical activity and depressive symptoms in mid-age women. *American Journal of Preventative Medicine.*
- Byles J, Powers J, Chojenta C & Warner-Smith P. Older women in Australia: Aging in urban, rural and remote environments. *Australasian Journal on Ageing.*
- Cwikel J, Gramotnev H & Lee C. Never-married childless women: Health and social circumstances in older age. *Social Science and Medicine.*
- Lee C & Gramotnev H. Predictors and outcomes of early motherhood in the Australian Longitudinal Study on Women's Health. *Psychology, Health & Medicine.*
- Brown P & Warner-Smith P. The Taylorisation of family time: an effective strategy in the struggle to 'manage' work and life? *Annals of Leisure Research.*
- Soupourmas F, Ironmonger D, Brown P & Warner-Smith P. Testing the Practicality of a Personal Digital Assistant (PDA) Questionnaire vs. a Beeper and Booklet (B&B) Questionnaire in a Random-Time Experience-Sampling Method (RTESM) Context. *Annals of Leisure Research.*

Conference Proceedings, Book Chapters and Published Reports

1997

- Brown W, Young A & Byles J. Women's Health Australia: A health profile of mid-life rural women. *Rural Public Health in Australia.* pp. 211-220. Canberra: National Rural Health Alliance, 1997.

1998

- Bryson L & Warner-Smith P. Women's health in rural Australia: Towards 2000. In R Doyle (Ed.), *Proceedings of the Rural Australia: Towards 2000 Conference Keynote Papers.* Charles Sturt University: Centre for Rural Social Research, 1998.
- Wicks D & Mishra G. Young Australian women and their aspirations for work, education and relationships. In E Carson, A Jamrozik & T Winefield (Eds), *Unemployment Economic Promise and Political Will.* Brisbane: Australian Academic Press, 1998. pp. 89-100.

1999

- Bryson L. Employment and women's health into the third millennium: a case for good accessible child care. *Round Table Report from Child Care and Me: Child Care in 2010.* pp. 20-24. Adelaide: Office for the Status of Women, 1999.

2000

- Young M, Byles J & Dobson A. The effectiveness of legal protection in the prevention of domestic violence in the lives of young Australian women. *Trends and Issues in Crime and Criminal Justice,* Report no. 148, March 2000. pp. 1-6. Canberra: Australian Institute of Criminology, 2000.
- Schofield M, Mishra G & Dobson A. Risk of early menopause among Australian women who smoke. In Lu R, Mackay J, Niu S & Peto R (Eds), *Tobacco: The Growing Epidemic: Proceedings of the Tenth World Conference on Tobacco Health,* 24-28 August 1997, Beijing, China. pp. 243-246. London: Springer Verlag, 2000.
- Schofield M, Mishra G & Dobson A. Risk of multiple prior miscarriages among middle aged women who smoke. In R Lu, J Mackay, S Niu & R Peto (Eds), *Tobacco: The Growing Epidemic: Proceedings of the Tenth World Conference on Tobacco Health,* 24-28 August 1997, Beijing, China. pp. 241-243. London: Springer Verlag, 2000.

2001

- Lee C. *Women's Health Australia: What do we know? What do we need to know? Progress on the Australian Longitudinal Study of Women's Health 1995-2000.* Brisbane: Australian Academic Press, 2001
- Lee C. Family caregiving: a gender-based analysis on women's experiences. In S Payne & C Ellis Hill (Eds.), *Chronic and Terminal Illness: New Perspectives on Caring and Carers.* New York: Oxford University Press, 2001. pp. 123-139.
- Warner-Smith P & Lee C. Young rural women: Life choices, aspirations and well-being. *Proceedings of 6th National Rural Health Conference.* pp. 1-10. Canberra, 2001.
- Young A, Dobson A & Byles J. Access to health services in urban and rural Australia: A level playing field? *Proceedings of 6th National Rural Health Conference.* pp. 1-9. Canberra, 2001.
- Young A & Byles J. A sense of belonging: how do you measure it and does it matter? *Proceedings of 6th National Rural Health Conference.* pp. 1-8. Canberra, 2001.
- Lee C. Women's Health Australia. *Proceedings of 6th National Rural Health Conference.* pp. 1-10. Canberra, 2001.

2002

- Byles JE, Harris M & Mishra G. A good night's sleep: sleeping difficulty and sleeping medication use among older Australian women. *Proceedings from the 8th Annual National Health Outcomes Conference: Health Outcomes 2002: Current Challenges and Future Frontiers.* 17-18 July 2002, Canberra, ACT, Australia. Published by: Australian Health Outcomes Collaboration, Wollongong 2002.
- Warner-Smith P, Mishra G, & Brown P. Women's wellbeing and their satisfaction with hours of paid work. *Paper prepared for the International Time Use Conference: Time Use, Work-Family Interface, and Parent-Child Relationships,* March 21-23, 2002, University of Waterloo, Toronto, Ontario, Canada.
- Young A. Putting data into context: findings from linking Medicare health service use and expenditure data with longitudinal health survey data. *Proceedings from Symposium on health data linkage: its value for Australian health policy development and policy relevant research.* pp. 1-20. Adelaide: Public Health Information Development Unit, 2002.
- Lee C. Women's Health Australia – Overview of work in progress. In Beaumont M & McLean P (Eds), *The Australian Longitudinal Study on Women's Health: Proceedings of Women's Health Victoria's Forum,* 3 June 2002, Melbourne, Australia. pp. 2-12. Melbourne: Women's Health Victoria, 2002. URL: http://www.whv.org.au/Articles/WHA_longitudinal_forum.pdf [08.12.2004].
- Bryson L. Women's Health Australia – Selected results and implications. In Beaumont M & McLean P (Eds), *The Australian Longitudinal Study on Women's Health: Proceedings of Women's Health Victoria's Forum,* 3 June 2002, Melbourne, Australia. pp. 14-22. Melbourne: Women's Health Victoria, 2002. URL: http://www.whv.org.au/Articles/WHA_longitudinal_forum.pdf [08.12.2004]

2003

- Outram S. Mid-life women's experiences of seeking help for psychological distress in rural Australia: an overview. *Proceedings from the 7th National Rural Health Conference.* 1-4 March 2003, Hobart, Tasmania, Australia. Refereed Infront Outback paper. URL: http://www.nrha.net.au
- Loxton D, Hussain R & Schofield M. Women's experiences of domestic abuse in rural and remote Australia.*Proceedings from the 7th National Rural Health Conference.* 1-4 March 2003, Hobart, Tasmania, Australia. Refereed Infront Outback paper. URL: http://www.nrha.net.au
- Warner-Smith P & Brown P. 'It's time to play a bit': mid-age rural women's leisure and well-being. *Proceedings from the 7th National Rural Health Conference.* 1-4 March 2003, Hobart, Tasmania, Australia. Refereed Infront Outback paper. URL: http://www.nrha.net.au
- Lee C. What Women's Health Australia can tell us about women's well-being in the bush. *Proceedings from the 7th National Rural Health Conference,* 1-4 March 2003, Hobart, Tasmania, Australia. Refereed Infront Outback paper. URL: http://www.nrha.net.au

2004

- Williams L & Germov J. Body acceptance: exploring women's experiences. In Williams L & Germov J (Eds.), *A sociology of food and nutrition: the social appetite.* Melbourne: Oxford University Press, 2004. pp. 403-426.
- Hillier L, De Visser R, Kavanagh A & McNair R. The drug use patterns of heterosexual and non-heterosexual young women: data from the Women's Health Australia Study. In DW Riggs & GA Walker (Eds), *Out in the Antipodes: Australian and New Zealand Perspectives on Gay and Lesbian Issues in Psychology.* Perth: Brightfire Press, 2004. pp. 205-225.

2005

- Young A & Powers J. Australian women and alcohol consumption 1996-2003. Report no. 3582, February 2005. pp. 84. Canberra: *Australian Longitudinal Study on Women's Health report to the Australian Government Department of Health and Ageing,* 2005.

Presentations, Seminars and Workshops 05

Lee C.
Caregiving and women's health: The big picture. Invited keynote address, *Carers NSW Inaugural Professional Conference - Shifting paradigms in health care: Leading practice in carer support,* Sydney, New South Wales, Australia, 24-25 February 2005.

Furuya H, Byles J & Young A.
Does moderate alcohol consumption lead to excessive disability or poorer health in elders? *Symposium on the Future Direction of Alcohol Research in Japan at the Workshop of Japanese Society for Biomedical Research on Alcohol,* Tokyo, Japan, 3 - 4 March 2005.

Young A, Warner-Smith P & Byles J.
Nine years down the track: Has access to health services changed for women in rural Australia? *Symposium on Women's Health at the 8th National Rural Health Association Conference,* Alice Springs, Northern Territory, Australia, 10-13 March 2005.

Warner-Smith P.
Gender, generation and geography: Findings from the Australian Longitudinal Study on Women's Health on the health and wellbeing of women at different lifestages. *Symposium on Women's Health at the 8th National Rural Health Association Conference,* Alice Springs, Northern Territory, Australia, 10-13 March 2005.

Loxton D.
From the smallness of the community comes the strength of the community: Sole mothering in rural and remote Australia. *Symposium on Women's Health at the 8th National Rural Health Association Conference,* Alice Springs, Northern Territory, Australia, 10-13 March 2005.

Byles J.
Landscapes of healthy ageing: Older women across urban, rural and remote Australia. *Symposium on Women's Health at the 8th National Rural Health Association Conference,* Alice Springs, Northern Territory, Australia, 10-13 March 2005.

Dobson AJ & Ford J.
Risk factors for 'early' death among elderly women: Results from the Australian Longitudinal Study on Women's Health. *2nd International Conference on Healthy Ageing and Longevity,* Brisbane, Queensland, Australia, 18-20 March 2005.

Matthews S, Clemens S & Donath S.
Changes in short term risky drinking and factors that influence change among two cohorts of Australian women. *International Conference on the Reduction of Drug Related Harm*, Belfast, Northern Ireland, 20-24 March 2005.

Everingham C, Stevenson D & Warner-Smith P.
'Things are getting better all the time'? Challenging the narrative of women's progress from a generational perspective. *British Sociological Association Annual Conference,* University of York, York, UK, 21-23 March 2005.

Mishra G & Dobson A.
Multiple imputation for body mass index: Lessons from the Australian Longitudinal Study on Women's Health. *MRC Biostatistics Unit Multiple Imputation Workshop,* Cambridge, UK, 12-13 April 2005.

Taft A.
Health and experiences of violence among young Australian women: Socio-economic factors, aspirations and other associations. *Symposium on Violence Against Women and Mental Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Loxton D, Schofield M & Hussain R.
Factors that mediate the relationship between intimate partner violence and mental health among mid-aged Australian women. *Symposium on Violence Against Women and Mental Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Parker, G.
Investigating the relationships among abuse experience, emotional health, and personal empowerment for Australian mid-aged women. *Symposium on Violence Against Women and Mental Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Taft A, Lumley J & Watson L.
Socio-economic factors associated with abortion in Australia: Implications for sexual and reproductive health policy for young Australian women. *Symposium on Reproductive and Sexual Health Rights at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Lloyd B.
The 'right' balance: Young women juggle work and motherhood. *Symposium on Lessons for Gendered Policy: Findings from the Australian Longitudinal Study on Women's Health at the 5th Australian*

Women's Health Conference, Melbourne, Victoria, Australia, 20-22 April 2005.

Loxton D, Warner-Smith P & Ford J.
Mid-age women consider retirement. *Symposium on Lessons for Gendered Policy: Findings from the Australian Longitudinal Study on Women's Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Byles J & Feldman S.
Older widow's lives. *Symposium on Lessons for Gendered Policy: Findings from the Australian Longitudinal Study on Women's Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Bryson L.
Gender, health and evidence-based policy. *Symposium on Gender equity in health policy at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Bryson L.
Participant. *Plenary on the Politics of Women's Health at the 5th Australian Women's Health Conference,* Melbourne, Victoria, Australia, 20-22 April 2005.

Collins C, Hodge A & Young A.
Are you what you eat? Associations between diet quality and health utilisation in mid-aged women from the Australian Longitudinal Study on Women's Health. Poster presented at the *Dieticians Association of Australia 23rd National Conference,* Perth, Western Australia, Australia, 25-29 May 2005.

Brown WJ, Williams L, Ford JH, Ball K & Dobson AJ.
Identifying the 'energy gap': Magnitude and determinants of 5 year weight gain in mid-age women. *4th Annual Meeting of the International Society of Behavioural Nutrition and Physical Activity,* Amsterdam, The Netherlands, 16-18 June 2005.

Williams L, Brown W & Young A.
Effects of dietary intake and physical activity on weight gain in menopausal women: A substudy of the Women's Health Australia project. *4th Annual Meeting of the International Society of Behavioural Nutrition and Physical Activity,* Amsterdam, The Netherlands, 16-18 June 2005.

Young A.
The Australian Longitudinal Study on Women's Health: Ten years on. *Meeting of the Australian Federation of University Women (Hunter Valley Branch),* Hunter Valley, New South Wales, Australia, 22 June 2005.

Lloyd, B.
The work-family juggle and social and emotional well-being: An exploratory study of young Australian women. *Australian Social Policy Conference,* University of New South Wales, Sydney, Australia, 20-22 July 2005.

Warner-Smith P.
'Who knows when I can retire!' Middle-aged women consider retirement. *Australian Social Policy Conference,* University of New South Wales, Sydney, Australia, 20-22 July 2005.

Loxton D, Warner-Smith P, Powers J & Hampson A.
Retirement intentions and expectations of mid-age women; findings from the Australian Longitudinal Study on Women's Health. *Victorian Premier's Women's Summit,* Geelong, August 2005.

Lee C, France C & Powers J.
Correlates of stability and change in depression among young Australian women. *11th Annual National Health Outcomes Conference: Making a Difference,* Canberra, Australian Capital Territory, Australia, 17-18 August 2005.

Dobson A & Ford J.
Risk factors for 'early' death among elderly women: Results from the Australian Longitudinal Study on Women's Health. *17th International Epidemiology Association World Congress of Epidemiology,* Bangkok, Thailand, 21-25 August 2005.

Kelaher M & Dodson S.
Relationship between alcohol and drug use and unemployment among young Australian women. *17th International Epidemiology Association World Congress of Epidemiology,* Bangkok, Thailand, 21-25 August 2005.

Smith M, Russell A & Hodges PW.
Incontinence and breathing disorders are associated with development of back pain. *World Congress on Pain,* Sydney, Australia, 21-26 August 2005.

Smith M, Russell A & Hodges PW.
Incontinence and breathing disorders are associated with development of back pain. *Canadian Physiotherapy Association – Orthopaedic Division Symposium,* London, Canada, 28-30 October 2005.

Smith M, Russell A & Hodges PW.
Disorders of breathing and continence have a stronger association with back pain than obesity and physical activity. *2nd International Conference on Movement Dysfunction,* Edinburgh, UK, 23-25 September 2005.

Smith M, Russell A & Hodges PW.
Is back pain more common during pregnancy? *2nd International Conference on Movement Dysfunction,* Edinburgh, UK, 23-25 September 2005.

Brown WJ.
Upsetting the energy balance equation: What causes weight gain in Australian women? *Sports Medicine Australia National Conference,* Melbourne, Australia, 16-19 October, 2005.

Brown P, Warner-Smith P & Cerin E.
Using the experience sampling method to investigate experiences of time among dual earner parents in Australia. *International Association of Time Use Research Annual Conference,* Halifax, NS, Canada, November 2005.

Warner-Smith P & Brown P.
"Tuesdays they're with my mother-in-law": Grandparents' contribution to informal childcare in Australia. *International Association of Time Use Research Annual Conference,* Halifax, NS, Canada, November 2005.

Brown W, Dobson A, Ford J, Ball K & Williams L.
Prevention of weight gain: Which behaviours should we target? *15th National Australia Health Promotion*

Australian Longitudinal Study on Women's Health Seminar Series 2005

Conference, Canberra, Australia, March 2005.

Brown P, Warner-Smith P & Cerin E.
The Work/Life Tensions Project: Exploring experiences of time among dual-earner parents in Australia. *Founding Conference of the International Centre for Work and Family (ICWF).* IESE Business School, University of Navarra, Barcelona, Spain, 17-19 July 2005.

Young A, Matthews S, Clemens C & Donath S.
Changes in short term risky drinking among women: Factors that influence change. *36th Public Health Association of Australia Annual Conference,* Perth, Australia, September 2005.

Brown WJ.
Upsetting the energy balance: What causes weight gain in Australian women? *5th National Physical Activity Conference,* Melbourne, Australia, October 2005.

Clemens S, Matthews S, Young A & Powers J.
Stability and change in women's alcohol consumption. *Australasian Professional Society on Alcohol and other Drugs (APSAD) Conference,* Melbourne, Australia, November, 2005.

McDermott L, Owen N, & Dobson A.
Descriptive epidemiology of cigarette smoking among young women in young adulthood. *3rd Australian Tobacco Control Conference,* Sydney, Australia,
23-25 November 2005.

Mooney R, Warner-Smith P & Taylor A.
The right time to have children: Reproductive decision-making among young Australian women. *TASA (The Australian Sociological Association) Conference 2005,* University of Tasmania, Hobart, Australia, 6-8 December, 2005.

Warner-Smith P, Loxton D & Young A.
Good news and bad news: Urban/rural differences in health and health services for women. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 8 February 2005.

Dobson A & Ford J.
Weighting risk factors for 'early' death among elderly women. *Australian Longitudinal Study on Women's Health 2005 Research Meeting Series,* University of Queensland, Brisbane, Queensland, Australia, 24 February 2005.

Adams J.
Women's use of Complementary and Alternative Medicine (CAM) practitioners. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 8 March 2005.

Hodges J.
An ancient tradition in a modern life: Why are women practicing Iyengar yoga? *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 12 April 2005.

Mackenzie L & Mehraban A.
Falls and the home environment. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 10 May 2005.

France C.
Coping with depression: The younger Australian women's perspective. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 14 June 2005.

Byles J, Wheway V & Young A.
Annual health assessments for the elderly: Are they becoming more popular and who has had one? *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 19 July 2005.

Longitudinal Studies Workshop: The Practicalities

Lloyd B.
Pathways from social structures and social roles to mental well-being among young Australian women: An exploration of the validity of the stress-process model. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 9 August 2005.

Loxton D.
Women and domestic violence: Mental health and gynaecological health. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 12 September 2005.

Duncan, S.
Self-reported health amongst older female caregivers: Cross sectional and longitudinal analysis of contributors to better mental and physical health. *Australian Longitudinal Study on Women's Health 2005 Research Meeting Series,* University of Queensland, Brisbane, Queensland, Australia,
21 September 2005

Adamson L.
There's more to life than just walking: Older women's ways of staying happy and healthy. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 11 October 2005.

Mooney R.
The right time to have children: Reproductive decision-making among young Australian women. *Research Centre for Gender and Health Seminar Series,* The University of Newcastle, Newcastle, New South Wales, Australia, 11 October 2005.

14th Australasian Epidemiology Association Conference, Newcastle, Australia, 6-7 October 2005

This international conference was convened by staff from the Research Centre for Gender & Health in conjunction with the Centre for Clinical Epidemiology and Biostatistics, University of Newcastle.

Bowe S, Young A, Sibritt D & Furuya H.
Transforming the SF-36 to account for death in longitudinal studies: Does length of time between surveys and cohort composition matter?

Byles J
Prospective studies of healthy ageing: Past, present and future.

Byles J, Wheway V & Young A.
Annual Health Assessments for the elderly: Measures of uptake of the new service and characteristics of new users.

Collins C, Young A & Hodge A.
Associations between diet and health service utilisation in mid-aged women in the Australian Longitudinal Study on Women's health.

Dobson AJ.
Missing data in longitudinal studies.

Furuya H, Young A, Powers J & Byles J.
Comparing analytical methods for longitudinal quality of life data with drop-out: A case study.

Loxton D, Powers J, Schofield M & Hussain R.
Gynaecological health among mid-aged women who have experienced partner violence.

MacDonald-Wicks L, Collins C, Williams L, Young AF, Wheway VL & Russell A.
The effect of energy cut-off points on reporting dietary outcomes from the Australian Longitudinal Study on Women's Health (FFQ Group).

Powers JR & Young AF.
Long-term effects of alcohol on the health of mid-age women.

Young A, Warner-Smith P & Jones P.
Specialist consultations by women in 1997-2003: Lower use in rural areas and at what cost.

Contact Details

University of Queensland

Professor Annette Dobson
Project Director

Australian Longitudinal Study on Women's Health
School of Population Health
University of Queensland
Herston QLD 4006
AUSTRALIA

University of Newcastle

Dr Deborah Loxton
Project Manager

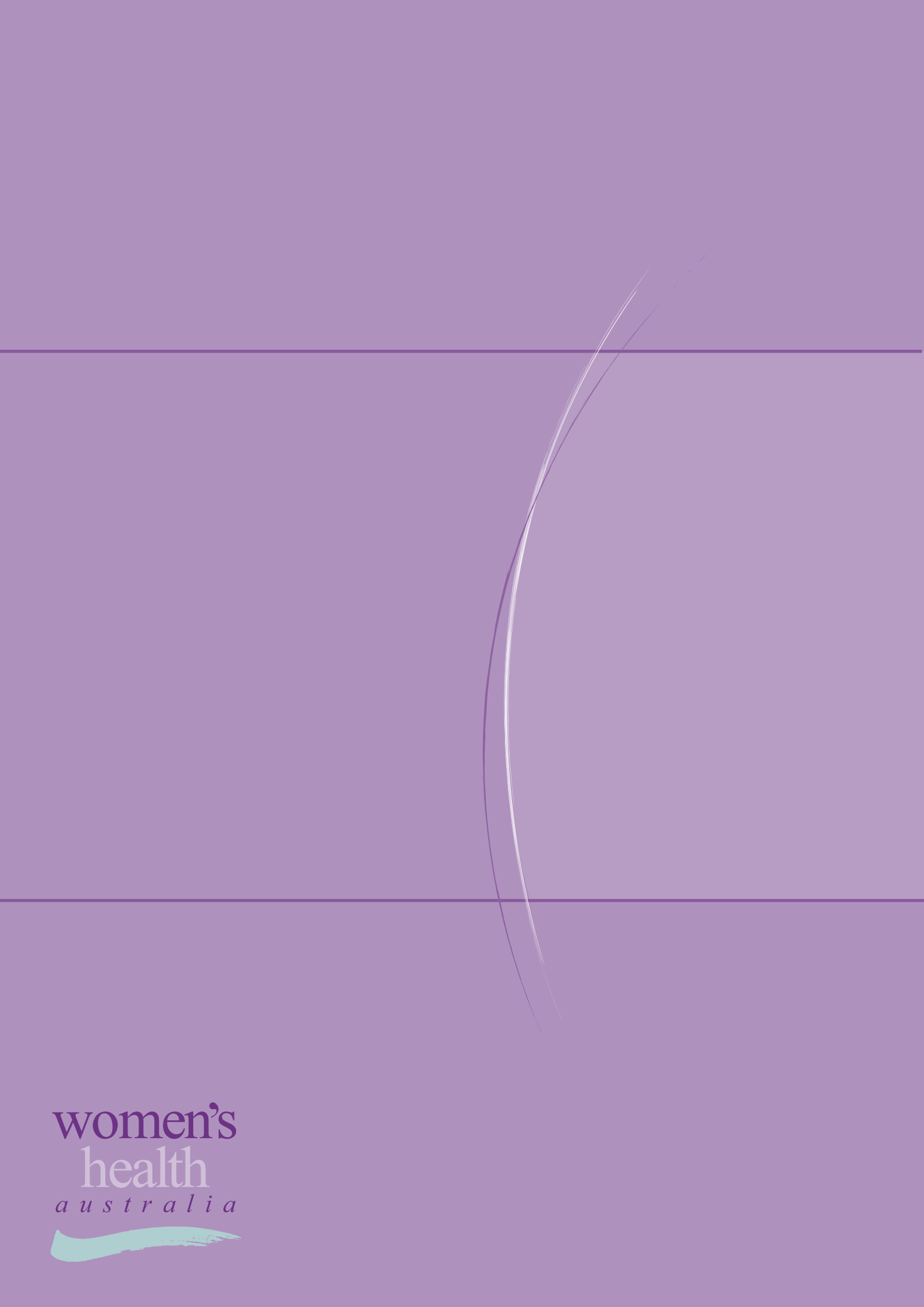
Australian Longitudinal Study on Women's Health
The University of Newcastle
Callaghan NSW 2308
AUSTRALIA

T 61-2-4923 6872
F 61-2-4923 6888

whasec@newcastle.edu.au
http://www.newcastle.edu.au/centre/wha
http://www.sph.uq.edu.au/alswh

A detailed description of the background, aims, themes, methods, representativeness of the sample and progress of the study is given on the project web page. Surveys are also available on the website, along with contact details for the research team.

Abstracts of all papers published, papers accepted for publication, and conference presentations are also on the project website.


women's
health
australia