

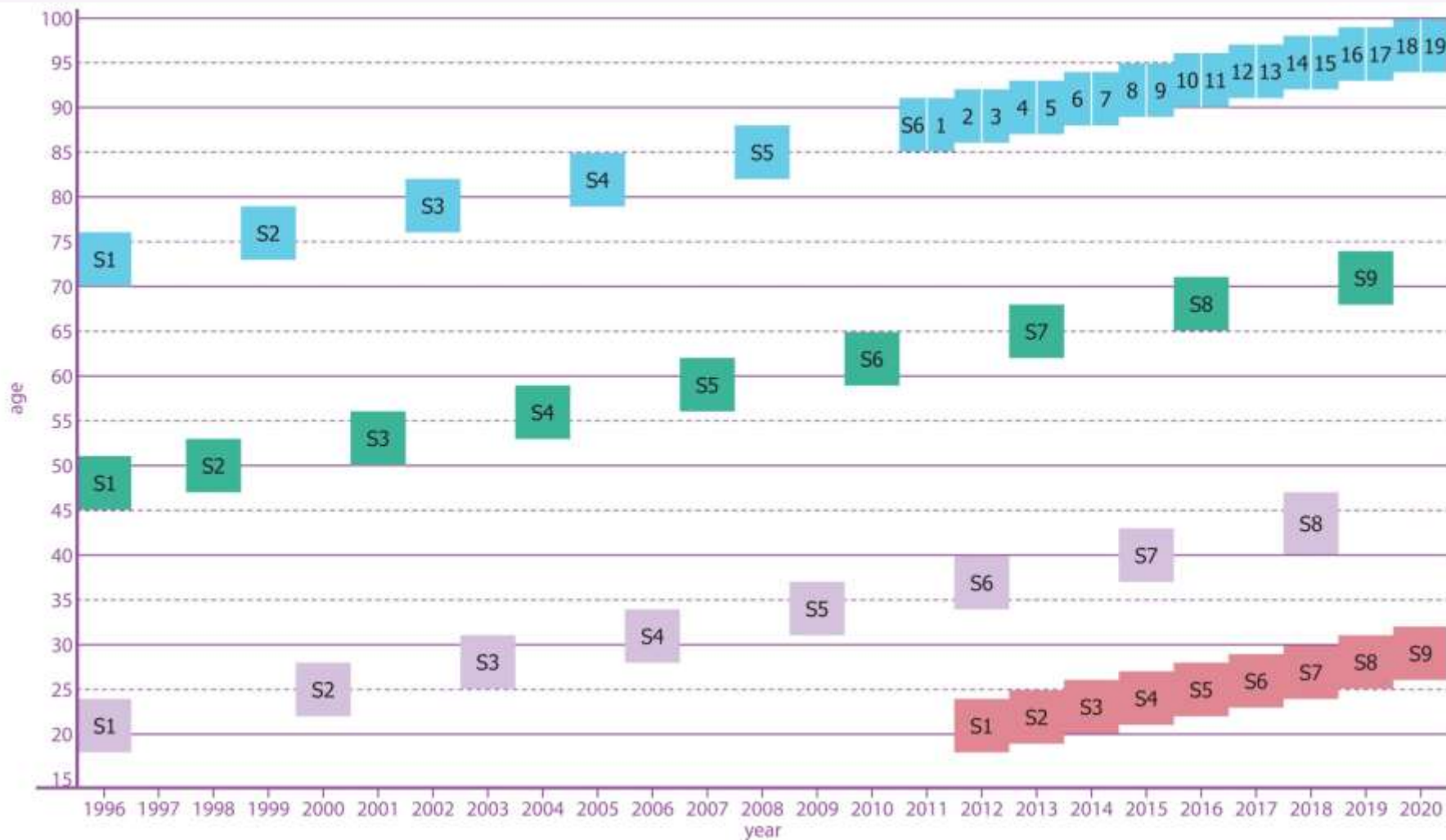
***Australian Longitudinal Study on
Women's Health: Insights from
research higher degree students***

Catherine Chojenta, Amy
Anderson, Ellie Gresham, Melissa
Harris & Jane Rich

Australian Longitudinal Study on Women's Health

- Funded by the Australian Government Department of Health & Ageing
- Recruitment – 1996 via Medicare database
- Over 40,000 women across Australia
- Postal survey & linkage to administrative datasets
- Over-sampling in rural and remote areas
- Biopsychosocial view of health

Survey Schedule



Survey Design

- Quantitative survey items
- Qualitative – open-ended question
- Sub-studies – extra surveys, interviews, diaries etc
- Data linkage – Medicare, Pharmaceutical benefits scheme, state based datasets (Perinatal Data Collection, Admitted Patient Data Collection, Cancer Registry etc)

Postnatal Depression

Catherine Chojenta

- Long and short term risk factors for postnatal depression
- Multi Methods Design
 - Study 1: Cross-sectional quantitative
 - Study 2: Mixed methods & qualitative analysis of free-text comments
 - Study 3: Longitudinal quantitative
 - Study 4: In-depth interviews

Postnatal Depression

Catherine Chojenta

- Overall findings:
 - Prior history of depression and anxiety greatly increased risk of postnatal depression
 - Women with postnatal depression also likely to describe history of dissatisfaction with health services
 - Lived experience of early motherhood – breastfeeding problematic, stigma associated with mental health problems

Postnatal Depression

Catherine Chojenta

- Policy implications:
 - Early intervention prior to pregnancy – focus on teenage years
 - Screening for perinatal mental health problems to include psychosocial history

Alcohol Use During Pregnancy

Amy Anderson

National Health and Medical Research Council (NHMRC) alcohol guidelines for pregnant women

Year	Recommendation
1992	No alcohol
2001	Low alcohol (< 7drinks/week, ≤ 2 drinks/occasion spread over at least 2 hours)
2009	No alcohol: “Not drinking is the safest option”

- 1992 and 2001 guideline compliance (about 80% consumed alcohol)
 - Powers JR et al. Assessing pregnant women's compliance with different alcohol guidelines: An 11-year prospective study. *Med J Aust* 2010;192(12):690-3.
- 2009 guideline compliance (72% consumed alcohol)
 - Anderson A, Hure A, Powers J, Kay-Lambkin F, Loxton D. Determinants of pregnant women's compliance with alcohol guidelines: a prospective cohort study. *BMC Public Health* 2012;12:777.
- **Why is there such a high prevalence of drinking during pregnancy when current guidelines recommend no alcohol?**

Alcohol Use During Pregnancy

Amy Anderson

Objective: To determine the multiple components that contribute to alcohol consumption during pregnancy among Australian women

- 1973-78 Cohort
 - Six surveys to date (1996, 2000, 2003, 2006, 2009, 2012)
 - Child-bearing years (18-39 years)
 - Recruited at ages 18-23 years
 - ALSWH measurement of alcohol use during pregnancy
 - Are you currently pregnant?
 - How often do you usually drink alcohol? (frequency)

Alcohol Use During Pregnancy

Amy Anderson

Multi methods approach

- Quantitative analyses
 1. 2009 NHMRC alcohol guideline compliance
 2. Predictors of alcohol use during pregnancy
 3. Pre-pregnancy alcohol use (binge and weekly)
 - Designed based on results of studies 1 and 2
- Qualitative analysis
 4. Women's perceptions of the information they received about alcohol use during pregnancy

Alcohol Use During Pregnancy

Amy Anderson

Preliminary findings

- Most Australian women continue to drink alcohol during pregnancy despite recommendations to abstain
- Alcohol guidelines have some impact
 - Low alcohol guidelines: 1.6 times more likely to consume alcohol
- Pre-pregnancy alcohol consumption largest impact
 - Binge: 2.28 times more likely to consume alcohol
 - Weekly: 1.47 times more likely to consume alcohol
- Qualitative: Information about alcohol use during pregnancy is not consistent and is perceived in different ways depending on a woman's individual context

Maternal Diet & Adverse Outcomes

Ellie Gresham

- Nutrition before conception and during pregnancy is important for both the mother and the growing fetus

	Australia (2009)
Birth rate	299,220 (increase 16% since 2004)
Gestational hypertension	4%
Gestational diabetes mellitus	4%
Preterm birth	8.2%
Low birth weight	6.2%

- Significant burden on the Australian population
- **Does diet predict these adverse pregnancy or infant outcomes and are women reporting these outcomes accurately?**







Maternal Diet & Adverse Outcomes

Ellie Gresham

Objective:

1. To determine the level of agreement between self-report pregnancy and birth data and state-based health records

- 1973-78 Cohort

Year	1996	'98 '99 '00	'01 '02 '03	'04 '05 '06	'07 '08 '09	'10 '11 '12
1973-78 cohort			 FFQ		 FFQ	
Survey (age years)	Survey 1 (18 – 23 years)	Survey 2 (22 – 27 years)	Survey 3 (25 - 30 years)	Survey 4 (28 - 33 years)	Survey 5 (31 - 36 years)	Survey 6 (34 - 39 years)

- Linked with Perinatal data base

Gestational Diabetes (yes/no)

Gestational Hypertension (yes/no)

Preterm birth (yes/no and weeks gestation)

Low birth weight (yes/no and grams)

Maternal Diet & Adverse Outcomes

Ellie Gresham

Objective:

2. To determine whether diet quality before or during pregnancy is predictive of pregnancy and birth outcomes

- 1973-78 Cohort
 - two groups to define women: *preconception* and *pregnancy*
 - Dietary Questionnaire for Epidemiological Studies (DQES-FFQ)
 - Australian Recommended Food Score (ARFS)
 - Outcomes: gestational hypertension, gestational diabetes, preterm birth, low birth weight

Maternal Diet & Adverse Outcomes

Ellie Gresham

Preliminary Findings:

- 11% gestational hypertension
3% gestational diabetes mellitus
9% preterm births
4% low birth weight babies
- Dietary intervention to improve women's diet quality before or during pregnancy, may help to reduce the occurrence of gestational hypertension, but does not show any association with other maternal or infant outcomes

Perceived stress and arthritis onset

Melissa Harris

- The ALSWH provides the potential to examine emerging chronic conditions in specific populations e.g. arthritis
- Overall thesis aims:
 - examine the contribution of perceived stress and associated psychosocial factors to arthritis burden and onset in women.
- A multi method approach was applied

Perceived stress and arthritis onset

Melissa Harris

Is perceived stress a modifiable risk factor for arthritis?

- 12,202 women from the 1946-1951 cohort
- Completed at least one survey in either 2001, 2004 or 2007
- Models applied to determine temporal sequence of the relationship between perceived stress and arthritis

Main findings

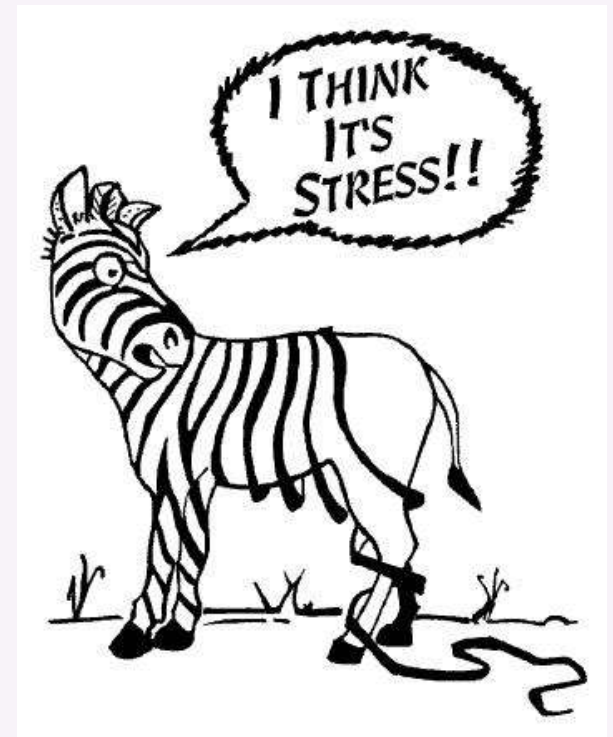
- Minimal levels of stress: increased risk = 1.7 times
- Moderate/high levels: increased risk = 2.4 times
- Moderate/high levels of stress was a greater predictor of arthritis onset than obesity

Perceived stress and arthritis onset

Melissa Harris

A qualitative approach

- Allowed for the clarification and expansion of findings from the quantitative analysis
- 19 semi-structured telephone interviews



Perceived stress and arthritis onset

Melissa Harris

Main findings

- Women with arthritis have specific meanings for stress e.g. “anxiety”, “under pressure”, “worry”

“she was stressed because she was in tears and, and, yeah having panic attacks and things like that” [Participant 9]

- Stress can create chronic disease, but not arthritis

“I’m a firm believer that stress is very, very bad for your health ... I think it um just puts your body out of balance and when your body’s out of balance then it doesn’t function properly and things go wrong” [Participant 6]

- Coping with stress was often developed early in life and involved being ‘stoic’ and repressing emotion

Perceived stress and arthritis onset

Melissa Harris

Implications

- Public health education strategies required to dispel myths associated with joint symptoms and ageing
- Women with arthritis and stress vulnerabilities might benefit from targeted interventions aimed at increasing emotional expression and increasing coping flexibility
- Perceived stress should be considered alongside other modifiable risk factors e.g. obesity, physical activity
- Mental health needs to be included as part of a national chronic disease strategy
- General health campaigns are required to mitigate the negative health consequences of stress, particularly in childhood and adolescence
- Dissemination of materials to health professionals and consumers regarding stress and arthritis onset is lacking

Survey comments and drought?

Jane Rich

<u>Cohort</u>	<u>N comments</u>	<u>N Words</u>
1921-26 cohort	Over 18 400 comments from over 12 000 women	1159 061
1946-51 cohort	Over 13 700 comments from over 14 000 women	828 309
1973-78 cohort	Over 11 400 comments from over 14 000 women	560 022

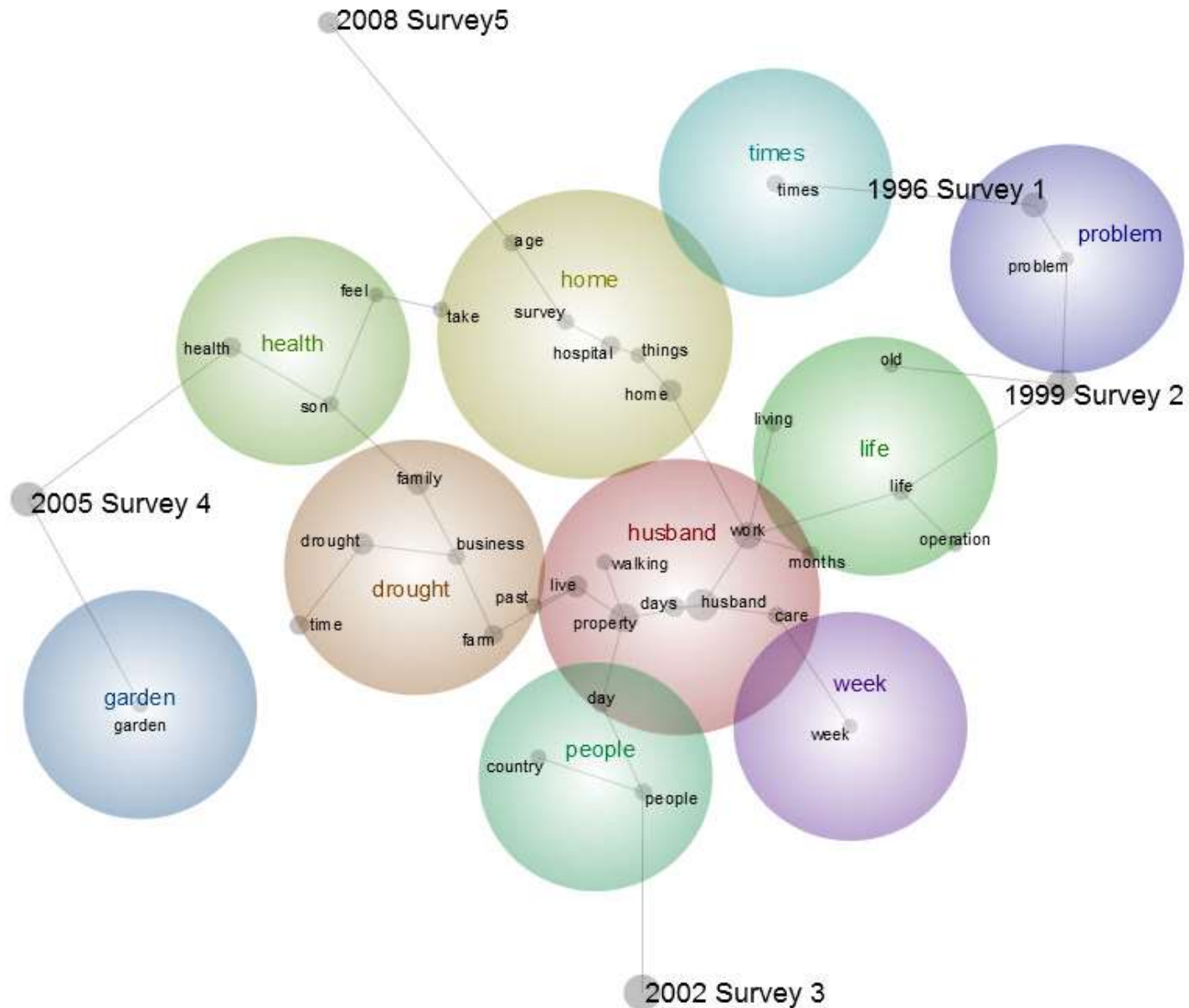
Have we missed anything? Is there anything you'd like to tell us?

1996 S1 Anne aged 70: "I lead a very busy life in my first marriage of 25 years I had to care for my late husband's father til he died in 1968, then my husband died after major operation in 1971 and I had to carry on working the property. Then took in a brother, who had an alcohol problem, when my mother was dying with cancer. After 4 years being widowed I decided to remarry but still had to help my brother. We have just had 5 years of drought and still not out of the woods yet, and now a collapse of the cattle market but we are still here..."

S2 1999 Anne aged 73: "I know I have to work too hard for my age because I have to manage the property. I have no family of my own and although my second husband tries hard he is still learning the ropes on the property. So I still have to shoulder a lot of responsibility to keep giving us a living after struggling through eight years of drought. I also have the added chore of sorting out a bachelor brother, who returns to me periodically. I love where my husband and I live and wouldn't leave here for anything. I built this place up and now have lived here nearly 50 years myself. I am getting too old to leave it now, so here's hoping"

S4 2005 Anne aged 79 : "...so I went home as soon as possible with the help of a walking frame & my husband & two casual men to help with the cattle work to keep things going with my husband. I had rather much to worry about to keep everything going and 15 years of drought to carry on from. I took very ill shortly after being home and nearly died from septicaemia. However, I lived to tell the tale and now I am going along quietly until I celebrate my 80th birthday then I will have to do some serious thinking to allow me to live on in my own home, that is for a little longer when the drought breaks & I will then retire. Best of luck to you all"

Pushing methodological boundaries



Findings:

Generational Differences in approaches to dealing with the drought:

- Younger women : Personal, heartbreaking reality...
- Mid-aged women : Concern for future, worn down over time
- Older women : Pragmatic and realistic

Ageing occurs in drought

- Raising families in drought
- Menopause and drought
- Planning to retire
- Returning to work at 79
- Selling the property that has been in the family since 1800's

Shared stories:

- Resilience erosion? Over time?
- What doesn't kill you makes you stronger? (More exposures > resilience)

Project Policy implications:

Generation Appropriate Responses is Key

- Internet and telecommunications (subsidised)
- E-health and tele-health
- Financial support not more red tape
- Property assistance for the elderly who choice to stay at home
- Security or insurance package so mid-aged women don't have to worry about future
- Continued emotional support and large scale publicity of this
- Access to female specific services (i.e. a gynaecologist)

Benefits of Working With ALSWH

- Large population-based dataset
- Prospective cohort studies
 - Strong level of evidence (NHMRC)
 - Temporality allows directional relationships when identifying predictors of behaviour
 - Assess changes over time
- Augment quantitative survey data with qualitative data, vice versa
- Linked with other population-based datasets
- Innovative methodological techniques

Contacting ALSWH

www.alswh.org.au

- Go to the “Information for Researchers” to find out more about collaborating with ALSWH
- General enquiries about accessing data:
 - Phone: +61-7- 3346 4723
 - Email: sph-wha@sph.uq.edu.au