

Research Symposium– Thursday 8 November 2012

North West Adelaide Health Study –

The NOBLE II STUDY

Australia's Baby Boomer Generation, Obesity and Work – Patterns, Causes and Implications

Rhiannon Pilkington BPsych(Hons) GDPH

PhD Candidate

Population Research & Outcome Studies, Discipline of Medicine



Outline

- NOBLE II background
- Significance
- Methodology
- Preliminary results
- Linkage with NWAHS
- PhD's with the project
- Preliminary results



NOBLE II Background

- Australian Research Council Linkage Project received funding commencing in 2009
- Aim: To achieve a deeper understanding of obesity, and its determinants, to develop effective policy and program interventions that reduce its scale and impact.

Baby Boomers (1946-1965)

Generation X (1966-1980)

NOBLE II Background

■ Chief Investigators;

- Graeme Hugo
- Gary Wittert
- Anne Taylor
- Helen Winefield
- Mark Daniel
- Robert Adams
- David Wilson
- Christopher Findlay
- Richard Ruffin
- Lynn Cobiac

■ Partner organisations;



Government of South Australia
Department of Health



University of
South Australia

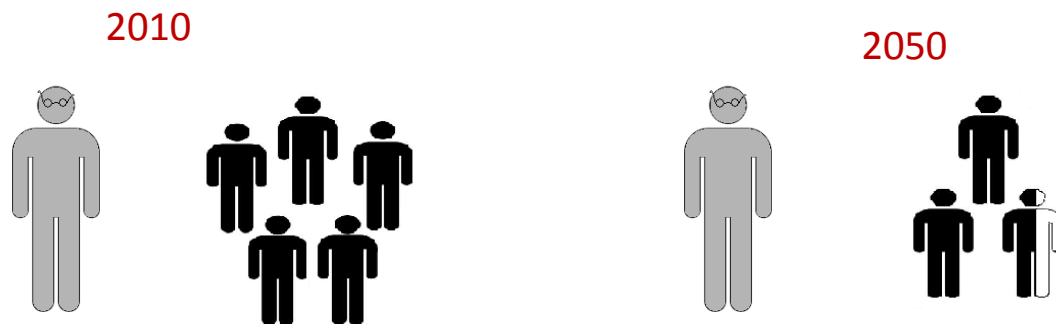


NOBLE II Background

Ageing population



Labour force participation





NOBLE II Background- Obesity

	Overweight	Obese
Baby Boomers		
Male	44%	32%
Female	34%	30%
Generation X		
Male	43%	23%
Female	30%	20%

Source: National Health Survey 2007/2008

- Cardiovascular disease, type II diabetes, osteoarthritis, cancer & mental wellbeing



NOBLE II Background

- 75% of Australia's working population
- The workplace is an environment where the majority of adults spend upwards of 50% of their awake time
- Healthy workers initiative
- The workplace; a pathway to health or ill health?

BUILT ENVIRONMENT

JOB

SEDENTARY

CONTROL

TIME

Peer or Supervisory SUPPORT

PSYCHOSOCIAL

Stress



NOBLE II Methodology

- Central to the NOBLE II Study is the NWAHS and FAMAS cohorts
- Recruitment of 874 Baby Boomers and 768 Gen Xers
- Collected information on;
 - Work status/organisation characteristics
 - Retirement status / intentions
 - Work stress
 - Work life balance
 - Physical activity at work
 - Psychosocial work environment
 - Work outcomes / options



NOBLE II – Initial results

The NOBLE II CATI Survey of the NWAHS and FAMAS Baby Boomers (n=874) and Generation X (n=768)

	Baby Boomers	Generation X
Work longer hours	↓	↑
'Very' concerned health will affect retirement	↓	↑
Take work home / more than normal hours	↓	↑
Job 'always' requires a lot of PA	↓	↑
High job strain	↓	↑
Miss day of work due to health	↑	↓
Healthy eating habits at work	↓	↑



NOBLE II – Linkage with NWAHS, FAMAS

■ Data linkage

- Self reported physical and psychological health status
- Family history of disease
- Health related behaviours
- Health service use and patterns
- Demographic variables
- Clinical medical assessment; spirometry, blood pressure, height, weight, allergy tests, fasting blood (glucose, cholesterol, HbA1c), lipids
- MBS and PBS data linkage at Stage II
- Questions on workforce, employment, family migration, lifecourse, nutrition, caring, friends, housing, environment and health status



NOBLE II – PhD projects

- PhD's with the NOBLE II project

- Examining topics as varied as;

- Sleep and work stress

- Psychosocial work environment

- Migrant health across the lifecourse

- Generational differences in health status, health related behaviours and the influence of workplace



Boomers and Gen X: health status, health related behaviours and the influence of workplace

- Aim

- health status
- health related behaviours
- influence of workplace

- Planned use of NWAHS and FAMAS data

Workplace & work type → health behaviours → obesity and co-morbidities → overall health → productivity/absenteeism



Preliminary results

- Weighted data
- Logistic regression analysis
- Karasek's Job control/demands model

↑ Psychological demands + ↓ Job control = High Job strain → risk of ill health

- Job strain, occupation and high waist circumference
(High WC \geq 95cm men & 80cm women)
- Analysis stratified by generation
- Job strain and occupation → NOBLE II
- Waist circumference → NWAHS & FAMAS



Preliminary results

Table 1: Associations between Job strain, occupation and a high waist circumference: logistic regression analysis of GENERATION X workers

	Model 1			Model 2 (adj. age and sex)		
	OR	(95% CI)	p value	OR	(95% CI)	p value
Job strain						
Active Job (High control high demands)	1.00	(ref)		1.00	(ref)	
Low Strain (High control low demands)	3.24	(2.00-5.25)	<0.001	3.09	(1.89-5.06)	0.000
Passive Job (Low control low demands)	1.98	(1.19-3.29)	0.008	2.02	(1.20-3.39)	0.008
High Strain (Low control high demands)	1.91	(1.17-3.13)	0.010	2.04	(1.24-3.38)	0.005
Occupation						
Managers	1.00	(ref)		1.00	(ref)	
Professionals	1.02	(0.56-1.87)	0.936	1.03	(0.56-1.91)	0.913
Technicians & Trades workers	0.68	(0.35-1.30)	0.243	0.68	(0.35-1.30)	0.243
Community & personal service workers	3.28	(1.43-7.51)	0.005	3.63	(1.52-8.63)	0.004
Clerical & administrative workers	1.20	(0.60-2.41)	0.604	1.28	(0.61-2.67)	0.516
Sales workers	1.30	(0.58-2.92)	0.525	1.26	(0.55-2.88)	0.587
Machinery operators & drivers	0.75	(0.32-1.74)	0.500	0.71	(0.31-1.67)	0.435
Labourers	2.15	(0.95-4.90)	0.067	2.30	(1.00-5.30)	0.051
Inadequately described	-	-		-	-	



Preliminary results

Table 2: Associations between Job strain, occupation and a high waist circumference: logistic regression analysis of BABY BOOMER workers

	Model 1			Model 2 (adj. age & sex)		
	OR	(95% CI)	p value	OR	(95% CI)	p value
Job strain						
Active Job (High control high demands)	1.00	(ref)		1.00	(ref)	
Low Strain (High control low demands)	0.58	(0.35-0.98)	0.041	0.56	(0.33-0.95)	0.033
Passive Job (Low control low demands)	0.82	(0.50-1.34)	0.420	0.76	(0.46-1.24)	0.271
High Strain (Low control high demands)	0.71	(0.41-1.22)	0.216	0.70	(0.41-1.20)	0.197
Occupation						
Managers	1.00	(ref)		1.00	(ref)	
Professionals	1.16	(0.66-2.05)	0.612	1.13	(0.64-2.03)	0.669
Technicians & Trades workers	0.91	(0.48-1.73)	0.771	0.92	(0.48-1.77)	0.808
Community & personal service workers	2.32	(1.16-4.66)	0.018	2.25	(1.10-4.63)	0.027
Clerical & administrative workers	1.61	(0.89-2.91)	0.118	1.58	(0.86-2.91)	0.141
Sales workers	1.74	(0.79-3.82)	0.167	1.70	(0.77-3.77)	0.188
Machinery operators & drivers	1.57	(0.68-3.61)	0.287	1.64	(0.71-3.81)	0.247
Labourers	1.23	(0.60-2.53)	0.574	1.14	(0.55-2.37)	0.718
Inadequately described	6.16	(0.32-119.59)	0.230	6.52	(0.33-127.66)	0.217



Preliminary results

Table 5: Specific occupations in the “Community and Personal Service Workers” category

Occupation	Examples
Health and Welfare Support Workers	Ambulance officers, paramedics; dental hygienists, technicians, therapists; Enrolled nurses; massage therapists
Carers and Aides	Child carers; education aides; personal carers and assistants
Hospitality Workers	Bar attendants; café workers; gaming workers; waiters
Protective Service Workers	Defence force members; Fire fighters; Police; Prison and security officers
Sports and Personal Service Workers	Fitness instructors; sports coaches or officials; sportspersons; personal care consultants; driving instructors; tour guides; tourism and travel advisors; sports and fitness workers

Source: Australian New Zealand Standard Classification of Occupations, First Edition

Karasek’s Job control/demands model

High psychological demands + Low Job Control = High Job strain → risk of ill health ??



Acknowledgments