

## dynopta studies

### ALSA

Australian Longitudinal Study of Ageing (South Australia)

### ALSWH

Australian Longitudinal Study of Women's Health (National)

### AusDiab

Australian Diabetes, Obesity and Lifestyle Study (National)

### BMES

Blue Mountains Eye Study (Blue Mountains)

### CLS

Canberra Longitudinal Study (Canberra)

### HILDA

Household, Income and Labour Dynamics (National)

### MELSHA

Melbourne Longitudinal Study of Ageing (Melbourne)

### PATH Through Life

Personality and Total Health Study (ACT and Queanbeyan)

### SOPS

Sydney Older Persons Study (Sydney)

Like other industrialized countries, Australia is facing major population ageing. From 2000 to 2025, the number of Australians aged 65 years and over will more than double, as a result of the ageing of the baby boom cohort and increasing life expectancy, while the number of people in working age groups will decline. DYNOPTA was developed to provide reliable information that can guide planning for this unprecedented demographic change. DYNOPTA has constructed a pooled dataset comprising information from nine Australian Longitudinal Studies of Ageing. Of the nine contributing studies, three are nationally representative, comprising 65% of participants at baseline. The remaining six studies are based in specific Australian cities or regions described below.

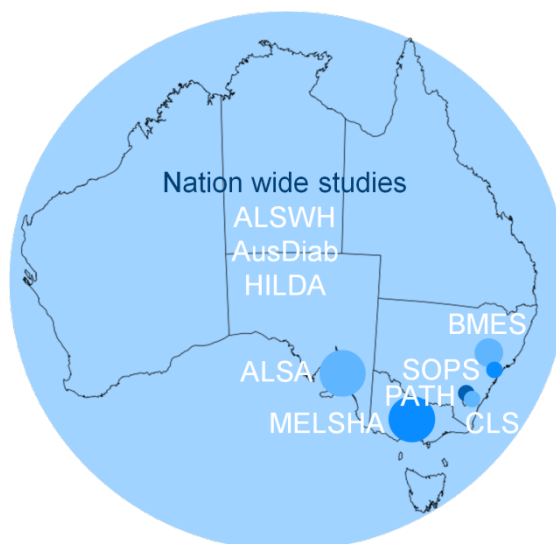


Figure 1 displays a geographic representation of study populations included in the Dynopta dataset.

## KEY FINDINGS

### Health outcomes

- Probable dementia and cognitive impairment
- Activities of daily living and current driving
- Depression and life satisfaction
- Vision and hearing impairment
- Age at death
- Predictors and correlates of health
- Age, sex, partner status, socioeconomic status
- Medical conditions e.g. cancer, stroke, arthritis, high blood pressure
- Smoking, alcohol use, physical activity
- Social support and networks
- Hospital visits, medical practitioner visits

DYNOPTA focuses on four outcomes that contribute greatly to the burden of disease and disability in Australia: dementia and cognitive impairment, mental health, sensory impairment and mobility/activity limitations. Mortality (date of death) is also included as a key outcome. The DYNOPTA dataset also includes key behaviours and circumstances that pose a risk to health, for example drinking and smoking, body mass index and physical activity levels.

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Figure 2 shows some of the baseline characteristics of the Dynopta dataset.

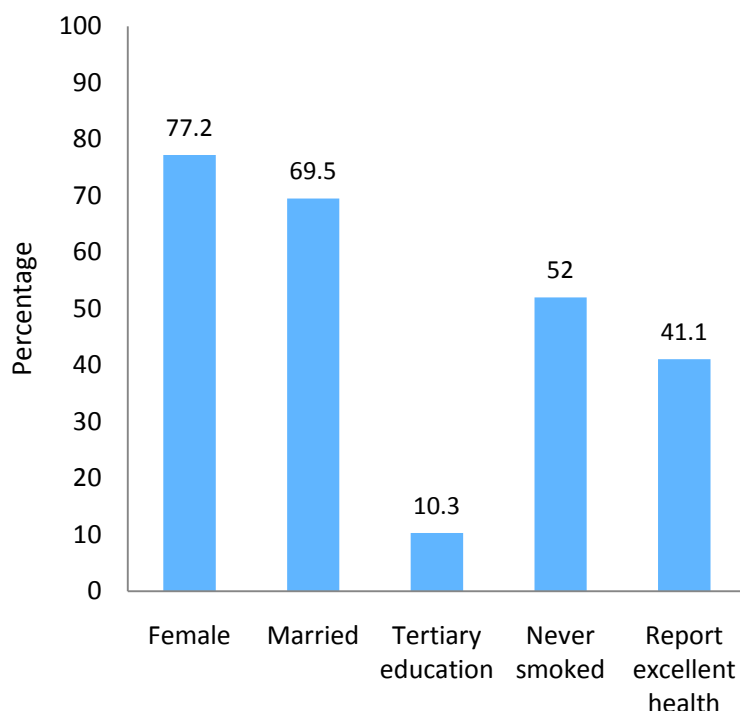
The sample comprises 50,652 baseline participants (participating between 1990 and 2001) aged between 45 and 103 years. Of these, 39,085 (77.2%) were female, reflecting inclusion of the all-female Australian Longitudinal Study of Women's Health and women's greater longevity. Further information about the contributing studies is available on the DYNOPTA website. At baseline, a total of 69.5% of participants were married or partnered, while 16.7% were widowed, with increasing proportions of widowed participants at older ages. About half of those with available data at baseline were in the workforce. Only 0.3% had no formal education, and 10.3% reported having attained tertiary education.

A major strength of DYNOPTA is the large sample size and multiple occasions of measurement. Studies have an average of 4 waves over an average period of 9.4 years. This enables more reliable analyses than have hitherto been possible in the Australian setting. The study also provides more complete data on some under-represented groups and less common conditions, for example those aged 85 years and older or those suffering from Parkinson's disease. Despite these advantages, a recent evaluation of the DYNOPTA dataset highlighted the lack of reliable longitudinal evidence about Indigenous health and ageing. Older Indigenous Australians are under-represented in DYNOPTA and their small numbers prevent detailed examination of their health and well-being using this dataset.

#### Publication details:

Anstey, K. J., Byles, J.E., Luszcz, M.A., et al. (2010) Cohort Profile: The Dynamic Analyses to Optimise Ageing (DYNOPTA) Project, *International Journal of Epidemiology*, 39, 44–51.

Anstey, K. J., Kiely, K. M., Booth, H. et al. (2011) Quantifying a gap in Australian epidemiological research: An analysis of sparse population-based data on Older Indigenous Australians, *Australian and New Zealand Journal of Public Health*, 35, 331-6.



## POLICY IMPLICATIONS

- DYNOPTA provides a unique opportunity to investigate ways to optimize ageing outcomes.
- We plan to establish the expected years of disability free life expectancy within each health outcome area.
- We will also identify key risk factors for the targeted health outcomes, as well as for mortality.
- DYNOPTA also provides an excellent platform for comparison with similar datasets from Europe, the United States and Asia.
- There remains an urgent need for a national longitudinal study of older Indigenous Australians.
- A number of findings from DYNOPTA have already been published and will become available through future fact sheets.