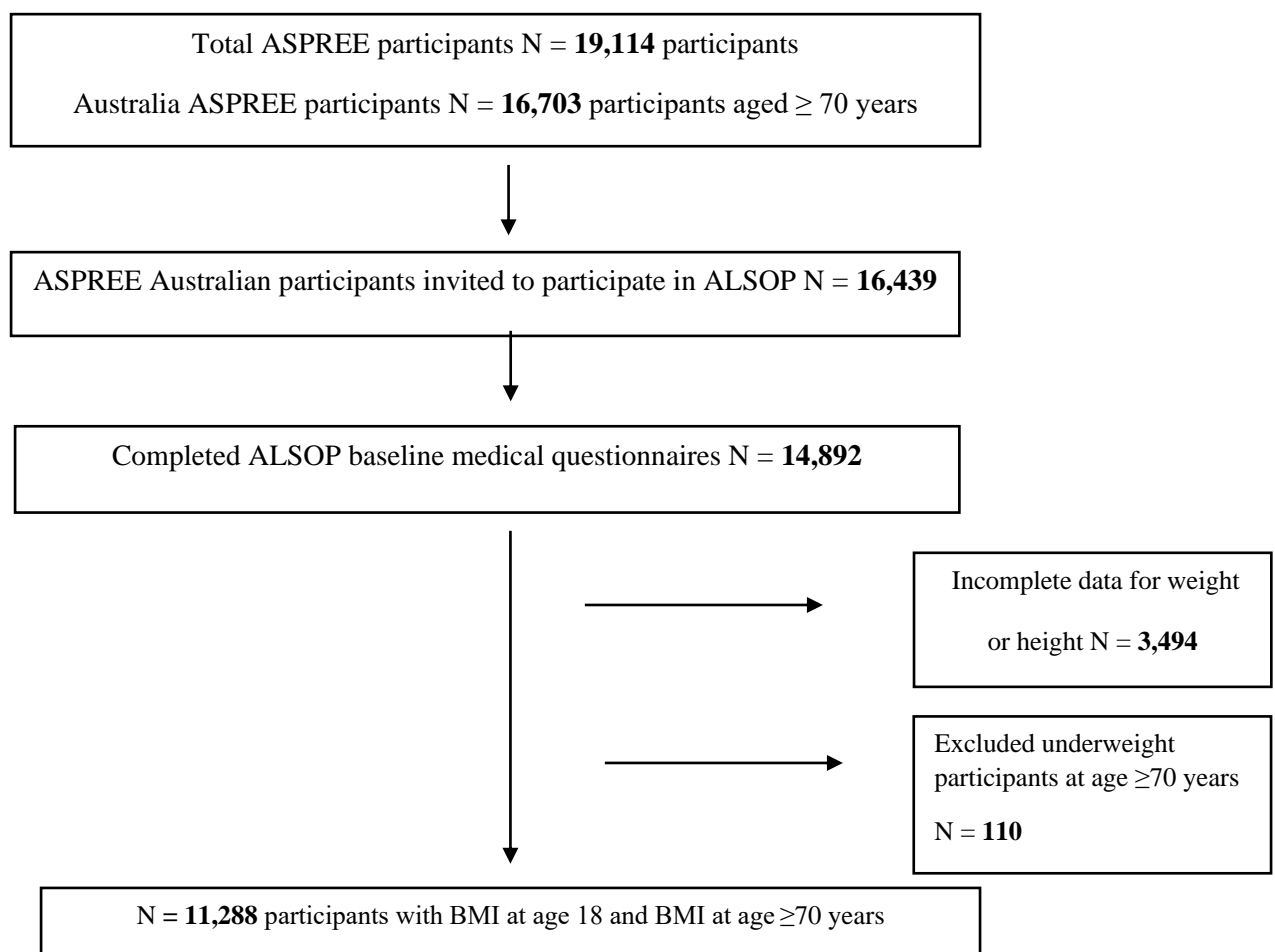


Socio-demographic, lifestyle, and clinical characteristics of early and later weight status in older adults: secondary analysis of the ASPREE trial and ALSOP sub-study

Supplementary Materials S1: Figure S1: Flow diagram of study participants included in this analysis



Supplementary Materials S2 Potential Associated Characteristics

Socio-demographic factors included age (years), living situation (living with others, living alone), partner status (partnered, unpartnered), years of education (< 12 years, ≥ 12 years), residential region (major city, inner region, outer/remote regional) the Socio-Economic Index For Areas (SEIFA, tertiles) [1], paid work (none, full-time/part-time) and volunteer work (not including child minding, baby sitting or caring; no, yes). Lifestyle behaviours included physical activity (no more than light intensity activity in a typical week, moderate or vigorous activity) in middle age and baseline (age ≥ 70), smoking status (never, former/current); alcohol intake (never, former/current – low risk, current– high risk) defined using Australian guidelines of ≤ 40 g pure ethanol (four standard drinks) on any one day, and ≤ 100 g pure ethanol in a week [2]; and social health (social isolated/low social support/lonely, none). Self-reported health measures included depressive symptoms assessed using the Center for Epidemiologic Studies Depression Scale [3] (CES-D 10: ≥ 8 , <8); and Health Related Quality of Life (HRQoL) assessed using the Medical Outcomes Study 12-item short form (SF-12) (version-2) [4], providing the physical (PCS) and mental (MCS) component scores [5]. Health measured collected during clinical examination included hypertension (high blood pressure measurement of systolic ≥ 140 mmHg or diastolic ≥ 90 mmHg or use of anti-hypertensive medications); diabetes mellitus (self-report of diabetes or fasting glucose ≥ 126 mg/dL or diabetes medications); dyslipidaemia (cholesterol-lowering medications or high serum cholesterol (total ≥ 212 mg/dL, or High Density Lipoprotein ≥ 240 mg/dL or Low Density Lipoprotein > 160 mg/dL); and cognitive function (global cognition, the Modified Mini-Mental State Examination (3MS) [6], verbal fluency: the Controlled Oral Word Association Test (COWAT) [7], attention and psychomotor speed: the Symbol Digit Modalities Test (SDMT) measured [8], and episodic memory: the delayed recall task from the Hopkins Verbal Learning Test—Revised (HVLT-R)) [6].

1. Australian Bureau of Statistics 2033.0.55.001—Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2016: The Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD). Available online: <https://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001> (accessed on 8 August 2022).
2. Australian Guidelines to Reduce Health Risks from Drinking Alcohol | NHMRC Available online: <https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-reduce-health-risks-drinking-alcohol> (accessed on 8 August 2022).
3. Radloff, L.S. The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Appl. Psychol. Meas.* **1977**, *1*, 385–401, doi:10.1177/014662167700100306.
4. Ware, J.; Kosinski, M.; Keller, S.D. A 12-Item Short-Form Health Survey: Construction of Scales and Preliminary Tests of Reliability and Validity. *Med. Care* **1996**, *34*, 220–233, doi:10.1097/00005650-199603000-00003.
5. User's Manual for the SF-12v2 Health Survey (with a Supplement Documenting SF-12 Health Survey) – ScienceOpen Available online: <https://www.scienceopen.com/document?vid=2afd0468-f217-4cf3-aab7-783e1c9c02f1> (accessed on 8 August 2022).
6. Ryan, J.; Woods, R.L.; Britt, C.; Murray, A.M.; Shah, R.C.; Reid, C.M.; Kirpach, B.; Wolfe, R.S.; Nelson, M.R.; Lockery, J.E.; et al. Normative Performance of Healthy Older Individuals on the Modified Mini-Mental State (3MS) Examination According to Ethno-Racial Group, Gender, Age, and Education Level. *Clin. Neuropsychol.* **2019**, *33*, 779–797, doi:10.1080/13854046.2018.1488996.
7. Nutter-Upham, K.E.; Saykin, A.J.; Rabin, L.A.; Roth, R.M.; Wishart, H.A.; Pare, N.; Flashman, L.A. Verbal Fluency Performance in Amnesic MCI and Older Adults with Cognitive Complaints. *Arch. Clin. Neuropsychol. Off. J. Natl. Acad. Neuropsychol.* **2008**, *23*, 229–241, doi:10.1016/j.acn.2008.01.005.
8. Smith, A. *Symbol Digit Modalities Test*; Western psychological services Los Angeles, 1973;

Supplementary Materials S3: Table S3: BMI at age 18 and at age 70 by early and later life weight status (n=11,288)

| | Early and later life weight status* | | | | | |
|---------------------------|-------------------------------------|---------------|------------------------|------------------------|------------------------------|---------|
| Characteristic | Healthy weight | Overweight | Non-obesity to obesity | Obesity to non-obesity | Early and later life obesity | P value |
| N (%) | 3,494 (30.9%) | 5,135 (45.5%) | 2,431 (21.6%) | 95 (0.8%) | 133 (1.2%) | |
| Mean ±SD | | | | | | |
| BMI (kg/m²) at age 18 | 20.8 ±2.1 | 22.3 ±2.8 | 23.1 ±3.1 | 34.2 ±7.1 | 32.7 ±3.2 | 0.0001 |
| BMI (kg/m²) at age ≥70 | 22.8 ±1.5 | 27.1 ±1.6 | 33.3 ±3.2 | 26.4 ±2.8 | 35.7 ±4.2 | 0.0001 |
| N (%) | | | | | | |
| BMI categories at age 18 | | | | | | |
| Underweight | 483 (13.8%) | 446 (8.7%) | 192 (7.9%) | 0 | 0 | <0.001 |
| Normal weight | 3,011 (86.2%) | 3,725 (72.5%) | 1,537 (63.2%) | 0 | 0 | |
| Overweight | | 964 (18.8%) | 702 (28.9%) | 0 | 0 | |
| Obese | 0 | 0 | 0 | 95 (100%) | 133 (100%) | |
| BMI categories at age ≥70 | | | | | | |
| Underweight | (Excluded) | | | | | <0.001 |
| Normal weight | 3,494 (100%) | 210 (4.1%) | 0 | 26 (27.4%) | 0 | |
| Overweight | 0 | 4,925 (95.9%) | 0 | 69 (72.6%) | 0 | |
| Obese | 0 | 0 | 2,431 (100%) | 0 | 133 (100%) | |

*Healthy weight (at both age 18 and ≥70y), overweight (at either or both times), obesity (age 18y) to non-obese (age ≥70), non-obese (age 18y) to obesity (age ≥70y), and early and later life obesity (at age 18 and ≥70y).

N=number of observations; SD= standard deviation; p values are from t-test and Wilcoxon rank-sum test (continuous variables) Chi-square tests (categorical variables).

BMI: body mass index; (BMI categories): underweight (<18.5), normal (18.5–25), overweight (25–30), obese (≥30)