

Diet quality and incident non-communicable disease in the 1946–51 cohort of the Australian Longitudinal Study on Women's Health

Supplementary file

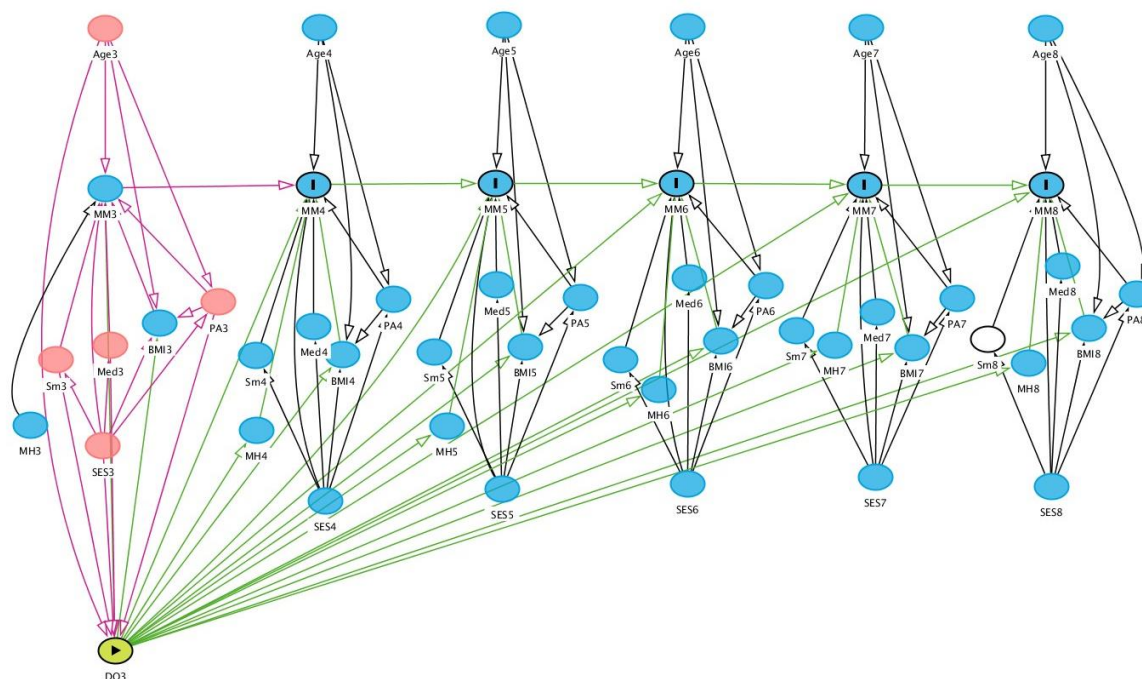


Figure S1. A Directed Acyclic Graph (DAG) used to identify potential confounders for non-communicable disease multimorbidity

The symbols in DAG indicate variables at each survey (from survey 3 to 8); BMI: body mass index; DQ: diet quality (measured using Healthy Eating Index for Australian Adults-2013, Mediterranean Diet Score, Alternative Healthy Eating Index-2010); Med: prescribed and over-the counter medicines taking; MH: history of mental health (depression and/or anxiety in previous surveys); MM: non-communicable disease multimorbidity; PA: physical activity; SES: socioeconomic status (marital status, residence, education, occupation and ability to manage income); Sm-smoking status

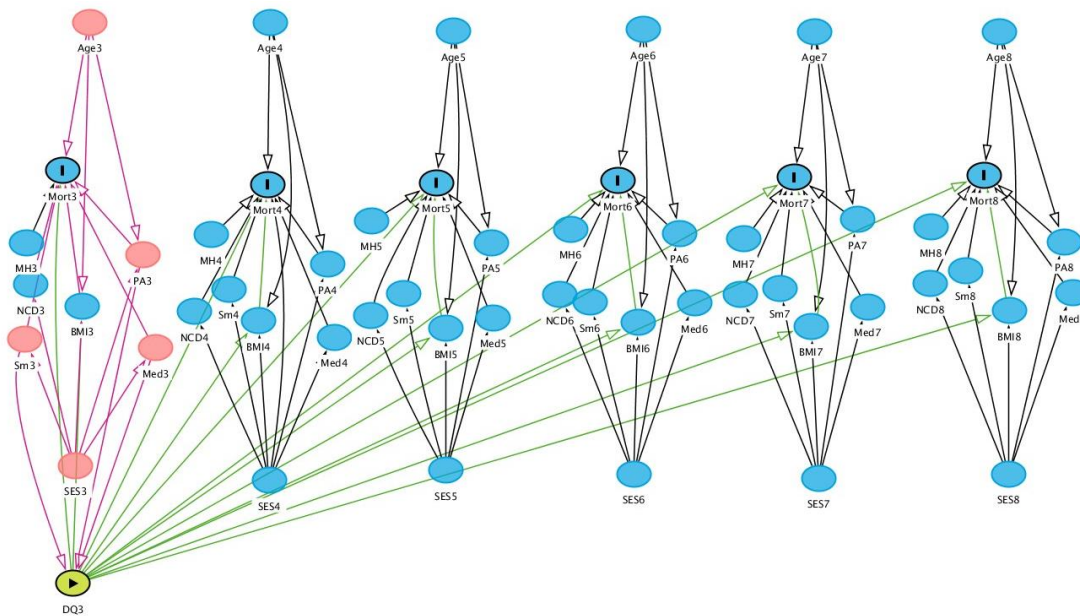


Figure S2. A Directed Acyclic Graph (DAG) used to identify potential confounders for all-cause mortality

The symbols in DAG indicate variables at each survey (from survey 3 to 8); BMI: body mass index; DQ: diet quality (measured using Healthy Eating Index for Australian Adults-2013, Mediterranean Diet Score, Alternative Healthy Eating Index-2010); Med: prescribed and over-the counter medicines taking; MH: history of mental health (depression and/ or anxiety in previous surveys); NCD: non-communicable disease; PA: physical activity; SES: socioeconomic status (residence, education, occupation and ability to manage income); Sm-smoking status

Supplementary Table S1. Respondents in each survey, from survey 4 to survey 8, based on our sample

| | Survey 4 | Survey 5 | Survey 6 | Survey 7 | Survey 8 |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Year | 2004 | 2007 | 2010 | 2013 | 2016 |
| Age (in years) | 53–58 | 56–61 | 59–64 | 62–67 | 65–70 |
| Mean age | 55.42 (1.44) | 58.43 (1.44) | 61.46 (1.45) | 64.71 (1.45) | 67.69 (1.45) |
| Deceased* | 16 | 48 | 76 | 125 | 180 |
| Loss to follow up* | 468 | 536 | 727 | 971 | 1144 |
| Respondents | 4866 | 4766 | 4547 | 4254 | 4026 |

* Numbers are in cumulative.

Supplementary Table S2. Criteria for optimal scoring for three diet quality indices used in the ALSWH study

| Index component | Diet quality index | | |
|--|--|--------------------------------|--|
| | HEIFA-2013 | MDS | AHEI-2010 |
| Extra foods per day | Male: < 3 serves Female: < 2.5 serves | | |
| Vegetables per day | Include legume M: ≥ 6 serves F: ≥ 5 serves Variety of vegetables: green, orange, cruciferous, tuber, or bulb and legumes | ≥ median (sex-specific) | ≥ 5 serves |
| Fruits per day | ≥ 2 serves Variety of fruits | ≥ median (sex-specific) | ≥ 4 serves |
| Cereals per day | M: ≥ 6 serves F: ≥ 6 serves Whole grains: 50% of total cereals | ≥ median (sex-specific) | M: 90 g F: 75 g |
| Legume per day | | ≥ median (sex-specific) | Legume and nuts: ≥ 1 serve |
| Fish and seafood per day | | ≥ median (sex-specific) | |
| Total protein foods per day (seafood and plant proteins, lean meat and meat alternatives) | M: ≥ 3 serves F: ≥ 2.5 serves | | |
| Meat and meat products per day | | < median (sex-specific) | Red and processed meat: 0 serve |
| Dairy foods/ alternatives per day | M: ≥ 2.5 serves F: ≥ 2.5 serves | < median (sex-specific) | |
| Saturated fat (% energy intake) Fatty acids (PUFA and MUFA) | <10 M: 4 serves F: 2 serves | | |
| Lipid ratios | | ≥ median (sex-specific) | |
| Trans-fat (% of energy) | | | ≤ 0.5 |
| Long-chain (n-3) fats (EPA+DHA) per day | | | 250 mg |
| PUFA (% of energy) | | | ≥ 10 |
| Sodium per day | 0-70 mmol (920–1610 mg) | | Lowest decile |
| Percentage of energy (% E) from sugar [§] | < 15% | | |
| Alcohol consumption per day | < 2.0 standard drinks | Male: 10–50 g Female: 5–25g | Male: 0.5–2.0 drinks Female: 0.5–1.5 drinks |
| Sugar-sweetened beverages and fruit juice per day | | | 0 serve |
| Fluids: proportion of water consumed relative to total beverages [‡] | ≥ 50% | | |

*Intermediate amount scored proportionately. AHEI-2010: Alternative Healthy Eating Index-2010, HEIFA-2013: Healthy Eating Index for Australian Adult-2013, MDS: Mediterranean Diet Score

Supplementary Table S3. Cumulative incidence of NCDs, multimorbidity and mortality from Survey 4 to Survey 8 (N=5350)

| NCDs | S4 | S5 | S6 | S7 | S8 |
|---------------------------------------|-------------|-------------|-------------|--------------|--------------|
| | n (%) | n (%) | n (%) | n (%) | n (%) |
| Diabetes mellitus | | | | | |
| DM* | 42 (0.79) | 106 (1.98) | 143 (2.67) | 167 (3.12) | 219 (4.09) |
| DM ^a | 42 (0.79) | 119 (2.22) | 206 (3.85) | 281 (5.25) | 375 (7.01) |
| Coronary heart disease | | | | | |
| CHD* | 58 (1.08) | 98 (1.83) | 110 (2.06) | 156 (2.92) | 171 (3.20) |
| CHD ^a | 58 (1.08) | 136 (2.54) | 214 (4.00) | 320 (5.98) | 409 (7.64) |
| Hypertension | | | | | |
| HT* | 244 (4.56) | 538 (10.06) | 686 (12.82) | 826 (15.44) | 883 (16.50) |
| HT ^a | 244 (4.56) | 604 (11.29) | 924 (17.27) | 1194 (22.32) | 1419 (26.52) |
| Asthma | | | | | |
| Asthma* | 76 (1.42) | 115 (2.15) | 143 (2.67) | 159 (2.97) | 165 (3.08) |
| Asthma ^a | 76 (1.42) | 159 (2.97) | 243 (4.54) | 314 (5.87) | 374 (6.99) |
| Cancer (excluding skin cancer) | | | | | |
| Cancer* | 86 (1.61) | 148 (2.77) | 150 (2.80) | 182 (3.40) | 228 (4.26) |
| Cancer ^a | 86 (1.61) | 199 (3.72) | 304 (5.68) | 417 (7.79) | 555 (10.37) |
| Depression and/or anxiety | | | | | |
| Depression and/or anxiety* | 622 (11.63) | 670 (12.52) | 644 (12.04) | 602 (11.25) | 559 (10.45) |
| Multimorbidity | | | | | |
| Multimorbidity ¹ | 133 (2.49) | 300 (5.61) | 473 (8.84) | 657 (12.28) | 857 (16.02) |
| All-cause mortality | | | | | |
| All-cause mortality ^b | 32 | 28 | 49 | 55 | 31 |

Details about ALSWH surveys are available on the study website (<http://www.alsw.org.au>).

CHD: coronary heart disease; DM: diabetes mellitus; HT: hypertension. Non-communicable diseases (except depression and/or anxiety) were considered as enduring condition. ¹ Multimorbidity was calculated by enduring condition of NCDs (except depression and/or anxiety). *Numbers in these rows were participants who had that disease at the time of data collection; ^aNumbers in these rows were participants who had that disease considered as enduring conditions; ^bNumber of deaths in each survey.

Supplementary Table S4. Comparison of socio-demographic and lifestyle characteristics of participants those included and excluded in the study sample (at Survey 1, 1996)

| Characteristics | Participants at Survey 1 | Participants at Survey 3 | | | P value ^a |
|--|--------------------------|---|---|---|----------------------|
| | N=13714 [n (%)] | Included at Survey 3 (n=5350) [n (%)] | NCDs before or at Survey 3 (n=5278) [n (%)] | Missing FFQ at Survey 3 (n=593) [n (%)] | |
| Marital status | | | | | 0.001 |
| Never married | 445 (3.3) | 163 (3.1) | 160 (3.1) | 23 (3.9) | |
| Married/de facto | 11311 (82.9) | 4564 (85.6) | 4379 (83.3) | 473 (80.7) | |
| Separated/divorced/widowed | 1890 (13.9) | 605 (11.3) | 716 (13.6) | 90 (15.4) | |
| Area of residence | | | | | 0.014 |
| Urban | 4999 (36.5) | 1963 (36.7) | 1793 (34.0) | 205 (34.6) | |
| Inner regional | 5214 (38.0) | 2048 (38.3) | 2113 (40.0) | 216 (36.4) | |
| Outer regional/ rural | 3498 (25.5) | 1338 (25.0) | 1372 (26.0) | 172 (29.0) | |
| Education | | | | | <0.001 |
| No formal education | 2482 (18.3) | 780 (14.7) | 927 (17.7) | 151 (26.0) | |
| Certificate (intermediate/high school) | 6603 (48.6) | 2588 (48.7) | 2549 (48.7) | 275 (47.3) | |
| Certificate (apprenticeship/ diploma) | 2599 (19.1) | 1098 (20.7) | 1026 (19.6) | 95 (16.4) | |
| University/ higher degree | 1892 (14.0) | 850 (16.0) | 733 (14.0) | 60 (10.3) | |
| Occupation | | | | | <0.001 |
| No paid job | 4615 (34.1) | 1559 (29.4) | 1848 (35.4) | 234 (40.3) | |
| Paid job | 8926 (65.9) | 3746 (70.6) | 3367 (64.6) | 347 (59.7) | |
| Ability to manage income | | | | | <0.001 |
| Easy/ not bad | 7677 (56.3) | 3356 (63.0) | 2808 (53.5) | 319 (54.6) | |
| Sometimes/ always difficult | 5951 (43.7) | 1973 (37.0) | 2443 (46.5) | 265 (45.4) | |
| Smoking status | | | | | 0.67 |
| Never smoked | 7049 (53.1) | 2849 (54.8) | 2772 (54.0) | 319 (56.6) | |
| History of smoking | 3776 (28.5) | 1488 (28.6) | 1513 (29.5) | 151 (26.8) | |
| Currently smoke | 2443 (18.4) | 864 (16.6) | 851 (16.5) | 94 (16.6) | |
| Physical activity | | | | | <0.001 |
| Nil/ sedentary | 2009 (17.9) | 739 (15.3) | 905 (19.1) | 100 (20.2) | |
| Low | 3225 (28.7) | 1345 (27.7) | 1372 (29.0) | 157 (31.8) | |
| Moderate | 2574 (22.9) | 1176 (24.2) | 1073 (22.7) | 98 (19.8) | |
| High | 3418 (30.5) | 1592 (32.8) | 1380 (29.2) | 139 (28.2) | |
| Self-rated health | | | | | <0.001 |
| Excellent | 1759 (13.0) | 980 (18.4) | 479 (9.2) | 75 (12.8) | |
| Very good | 4857 (35.8) | 2179 (41.1) | 1761 (33.7) | 188 (32.1) | |
| Good | 5378 (39.7) | 1833 (34.6) | 2282 (43.6) | 231 (39.5) | |
| Fair/ poor | 1560 (11.5) | 311 (5.9) | 705 (13.5) | 91 (15.6) | |
| Taking prescribed medicine | | | | | <0.001 |
| Not taken | 6366 (47.0) | 3110 (59.0) | 1887 (36.1) | 264 (45.5) | |
| Taken | 7179 (53.0) | 2165 (41.0) | 3338 (63.9) | 316 (54.5) | |
| Taking over-the-counter medicine | | | | | <0.001 |
| Not taken | 5331 (39.4) | 2022 (38.4) | 1935 (37.1) | 263 (45.4) | |
| Taken | 8199 (60.6) | 3248 (61.6) | 3286 (62.9) | 316 (54.6) | |

Due to missing data, the sum for each characteristic may not equal n. ^aP values from chi-squared tests.

Supplementary Table S5. Associations between diet quality indices and risk of common NCDs (including multimorbidity, Survey 4 to Survey 7) among women who remained at Survey 8 (N=4026)

| | S4 (n=3439) ^b | S5 (n=3485) ^b | S6 (n=3513) ^b | S7 (n=3632) ^b |
|--------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Number of missing values | 587 | 541 | 513 | 394 |
| Diet quality index | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| DM | n=42 | n=119 | n=206 | n=281 |
| HEIFA-2013 – Univariate | 0.31 (0.08–1.15) | 0.66 (0.34–1.29) | 0.78 (0.48–1.26) | 0.73 (0.49–1.11) |
| - Multivariate | 0.57 (0.14–2.29) | 0.78 (0.36–1.68) | 0.77 (0.45–1.34) | 0.83 (0.53–1.29) |
| MDS – Univariate | 1.07 (0.27–4.14) | 0.66 (0.29–1.54) | 0.88 (0.49–1.57) | 0.69 (0.41–1.14) |
| - Multivariate | 1.64 (0.31–8.63) | 0.96 (0.40–2.29) | 1.14 (0.60–2.15) | 0.91 (0.52–1.57) |
| AHEI-2010 – Univariate | 0.42 (0.11–1.69) | 0.24 (0.10–0.56)* | 0.35 (0.20–0.62)* | 0.35 (0.21–0.56)* |
| - Multivariate | 0.97 (0.22–4.29) | 0.35 (0.14–0.84)* | 0.46 (0.25–0.87)* | 0.44 (0.26–0.75)* |
| CHD | n=58 | n=136 | n=214 | n=320 |
| HEIFA-2013 – Univariate | 1.11 (0.49–2.49) | 1.18 (0.65–2.13) | 0.64 (0.40–1.03) | 0.91 (0.62–1.34) |
| - Multivariate | 1.11 (0.46–2.67) | 1.10 (0.59–2.06) | 0.70 (0.41–1.20) | 1.23 (0.80–1.87) |
| MDS – Univariate | 0.77 (0.28–2.12) | 0.48 (0.22–1.02) | 0.56 (0.32–0.99)* | 0.74 (0.48–1.15) |
| - Multivariate | 0.59 (0.16–2.09) | 0.48 (0.21–1.10) | 0.67 (0.36–1.23) | 0.97 (0.60–1.55) |
| AHEI-2010 – Univariate | 0.85 (0.33–2.14) | 0.58 (0.31–1.06) | 0.49 (0.30–0.80)* | 0.58 (0.39–0.84)* |
| - Multivariate | 1.07 (0.39–2.89) | 0.59 (0.30–1.16) | 0.59 (0.34–1.02) | 0.71 (0.47–1.08) |
| HT | n=244 | n=604 | n=924 | n=1194 |
| HEIFA-2013 – Univariate | 0.96 (0.61–1.50) | 0.86 (0.64–1.17) | 0.83 (0.64–1.07) | 0.76 (0.60–0.95)* |
| - Multivariate | 1.11 (0.68–1.81) | 0.88 (0.63–1.24) | 0.85 (0.64–1.13) | 0.75 (0.58–0.97)* |
| MDS – Univariate | 0.98 (0.60–1.58) | 0.93 (0.67–1.29) | 0.71 (0.54–0.93)* | 0.68 (0.53–0.87)* |
| - Multivariate | 1.13 (0.67–1.91) | 1.19 (0.83–1.70) | 0.74 (0.54–1.00) | 0.75 (0.57–1.00) |
| AHEI-2010 – Univariate | 0.54 (0.34–0.86)* | 0.61 (0.45–0.83)* | 0.66 (0.51–0.85)* | 0.68 (0.54–0.85)* |
| - Multivariate | 0.65 (0.39–1.07) | 0.71 (0.50–1.00) | 0.83 (0.62–1.10) | 0.78 (0.60–1.01) |
| Asthma | n=76 | n=159 | n=243 | n=314 |
| HEIFA-2013 – Univariate | 0.66 (0.29–1.51) | 0.97 (0.57–1.66) | 0.96 (0.62–1.49) | 0.90 (0.61–1.32) |
| - Multivariate | 0.84 (0.34–2.10) | 0.95 (0.53–1.70) | 0.99 (0.61–1.62) | 1.08 (0.71–1.65) |
| MDS – Univariate | 0.65 (0.24–1.75) | 1.21 (0.66–2.22) | 0.90 (0.54–1.49) | 0.80 (0.51–1.25) |
| - Multivariate | 0.84 (0.30–2.34) | 1.43 (0.75–2.74) | 1.08 (0.63–1.84) | 0.94 (0.58–1.52) |
| AHEI-2010 – Univariate | 0.50 (0.22–1.16) | 0.57 (0.32–1.02) | 0.56 (0.35–0.89) | 0.53 (0.35–0.79)* |
| - Multivariate | 0.75 (0.29–1.91) | 0.66 (0.36–1.23) | 0.62 (0.38–1.01) | 0.60 (0.39–0.94)* |
| Cancer (excludes skin cancer) | n=86 | n=199 | n=304 | n=417 |
| HEIFA-2013 – Univariate | 0.87 (0.41–1.86) | 1.35 (0.83–2.22) | 1.22 (0.82–1.83) | 1.20 (0.84–1.71) |
| - Multivariate | 0.96 (0.42–2.19) | 1.62 (0.92–2.84) | 1.24 (0.79–1.96) | 1.31 (0.89–1.90) |
| MDS – Univariate | 0.54 (0.20–1.42) | 0.79 (0.44–1.40) | 0.88 (0.56–1.39) | 0.98 (0.66–1.44) |
| - Multivariate | 0.45 (0.15–1.33) | 0.88 (0.48–1.61) | 1.01 (0.62–1.67) | 1.08 (0.72–1.63) |
| AHEI-2010 – Univariate | 1.71 (0.76–3.82) | 1.18 (0.69–2.04) | 1.08 (0.69–1.68) | 1.19 (0.81–1.74) |
| - Multivariate | 1.49 (0.64–3.43) | 1.36 (0.75–2.45) | 1.06 (0.65–1.74) | 1.20 (0.80–1.81) |
| Depression/ anxiety | n=622 | n=670 | n=644 | n=602 |
| HEIFA-2013 – Univariate | 0.82 (0.60–1.12) | 0.90 (0.67–1.20) | 0.79 (0.59–1.05) | 0.81 (0.61–1.09) |
| - Multivariate ^a | 0.99 (0.68–1.44) | 1.03 (0.73–1.47) | 0.70 (0.49–1.00) | 0.79 (0.56–1.11) |
| MDS – Univariate | 1.02 (0.74–1.39) | 1.11 (0.83–1.48) | 1.01 (0.75–1.36) | 0.74 (0.54–1.01) |
| - Multivariate ^a | 1.14 (0.77–1.67) | 1.11 (0.77–1.59) | 0.90 (0.63–1.30) | 0.74 (0.51–1.08) |
| AHEI-2010 – Univariate | 1.00 (0.73–1.37) | 1.09 (0.81–1.46) | 1.06 (0.77–1.45) | 1.07 (0.79–1.44) |
| - Multivariate ^a | 1.16 (0.79–1.71) | 1.10 (0.77–1.59) | 1.05 (0.71–1.53) | 1.11 (0.77–1.58) |
| Multimorbidity | n=133 | n=300 | n=473 | n=657 |
| HEIFA-2013 – Univariate | 0.69 (0.39–1.23) | 0.74 (0.49–1.13) | 0.74 (0.54–1.03) | 0.70 (0.53–0.93)* |
| - Multivariate ^a | 0.93 (0.49–1.78) | 0.75 (0.47–1.19) | 0.74 (0.51–1.08) | 0.83 (0.61–1.15) |
| MDS – Univariate | 1.20 (0.61–2.35) | 0.90 (0.56–1.45) | 0.73 (0.50–1.07) | 0.65 (0.47–0.91)* |
| - Multivariate ^a | 1.25 (0.57–2.73) | 1.09 (0.64–1.86) | 0.82 (0.54–1.26) | 0.79 (0.55–1.14) |
| AHEI-2010 – Univariate | 0.84 (0.45–1.58) | 0.69 (0.45–1.07) | 0.77 (0.55–1.09) | 0.57 (0.43–0.76)* |
| - Multivariate ^a | 1.09 (0.54–2.19) | 0.78 (0.48–1.26) | 0.94 (0.64–1.38) | 0.66 (0.48–0.92)* |

CHD: coronary heart disease; CI: confidence interval; DM: diabetes mellitus; HT: hypertension; OR: odds ratio. OR (95% CI) described in the table is the odds of having NCDs (each disease and multimorbidity) compared to quintile 5 to quintile 1 of each diet quality index (HEIFA-2013, MDS and AHEI-2010). Adjusted covariates were age; socioeconomic status (marital status, residence, education, occupation and ability to manage income); lifestyle variables (smoking status, physical activity, taking prescribed and over-the-counter medicine) for all NCD outcomes. ^aHistory of depression and/or anxiety at any previous survey(s) was included as a covariate. ^b Number in parenthesis is number of women in each survey for multivariate analysis; Number in bold and italic are cumulative number of NCD cases (except depression/ anxiety) in each survey; *Statistically significant (p<0.05).

Supplementary Table S6. Associations between diet quality indices and risk of all-cause mortality among 1946-51 ALSWH cohort women who ever had NCD between Survey 3 and Survey 8 (n=3032)

| Diet quality index | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
|--|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
| <i>Number of deaths at each survey</i> | <i>n=32</i> | <i>n=28</i> | <i>n=49</i> | <i>n=55</i> | <i>n=31</i> |
| HEIFA-2013 | | | | | |
| | S4 (n=3029) ^c | S5 (n=3020) ^c | S6 (n=3016) ^c | S7 (n= 3003) ^c | S8 (n=2995) ^c |
| Univariate | 0.83 (0.20–3.48) | 0.49 (0.14–1.71) | 0.71 (0.30–1.67) | 0.63 (0.28–1.39) | 0.37 (0.13–1.06) |
| | S4 (n=1097) ^d | S5 (n=1251) ^d | S6 (n= 1809) ^d | S7 (n= 2375) ^d | S8 (n= 2354) ^d |
| Multivariate | 1.04 (0.17–6.34) | 0.23 (0.04–1.28) | 0.48 (0.15–1.53) | 0.78 (0.30–2.00) | 0.52 (0.15–1.82) |
| MDS | | | | | |
| | S4 (n=3029) ^c | S5 (n=3020) ^c | S6 (n=3016) ^c | S7 (n= 3003) ^c | S8 (n=2995) ^c |
| Univariate | 0.42 (0.04–4.02) | 0.62 (0.19–2.08) | 0.33 (0.11–1.00) | 0.79 (0.30–2.04) | 0.44 (0.16–1.24) |
| | S4 (n=1365) ^d | S5 (n=1251) ^d | S6 (n= 1454) ^d | S7 (n= 2375) ^d | S8 (n= 2354) ^d |
| Multivariate | 0.91 (0.08–11.04) | 0.23 (0.03–2.10) | 0.29 (0.08–1.04) | 0.79 (0.25–2.51) | 0.61 (0.18–2.03) |
| AHEI-2010 | | | | | |
| | S4 (n=3029) ^c | S5 (n=3020) ^c | S6 (n=3016) ^c | S7 (n= 3003) ^c | S8 (n=2995) ^c |
| Univariate | 0.33 (0.05–1.96) | 0.82 (0.19–3.43) | 0.54 (0.23–1.27) | 1.39 (0.55–3.55) | 0.44 (0.17–1.14) |
| | S4 (n=1365) ^d | S5 (n=1251) ^d | S6 (n= 1809) ^d | S7 (n= 2375) ^d | S8 (n= 2354) ^d |
| Multivariate | 1.21 (0.10–14.14) | 0.20 (0.02–2.07) | 0.39 (0.12–1.24) | 2.36 (0.65–8.58) | 1.04 (0.33–3.27) |

OR: odds ratio. OR (95% CI) described in the table is the odds of mortality compared to the highest category to the lowest category of diet quality indices (HEIFA-2013, MDS and AHEI-2010). Quintile 4 and 5 were collapsed due to their small sample sizes. Adjusted covariates at each survey were age; socioeconomic status (residence, education, occupation and ability to manage income); lifestyle variables (smoking status, physical activity, taking prescribed and over-the-counter medicine), and history of depression and/or anxiety at any previous survey (s). ^c Number in parenthesis is number of women who ever had any NCD from Survey 3 to Survey 8 for univariate analysis; ^d Number in parenthesis is number of women who ever had any NCD from Survey 3 to Survey 8 for multivariate analysis; Number in bold and italic are number of all-cause mortality in each survey.

Supplementary Table S7. Associations between diet quality indices and total deaths across Survey 4 to Survey 8 among 1946-51 ALSWH cohort women (n=5350)

| Diet quality index | OR (95% CI) |
|--|-------------------|
| <i>Total number of deaths across Survey 4-Survey 8</i> | <i>n=195</i> |
| HEIFA-2013 | |
| Univariate | n=5350 |
| | 0.67 (0.47–0.98)* |
| Multivariate | n=4869 |
| | 0.80 (0.54–1.20) |
| MDS | |
| Univariate | n=5350 |
| | 0.54 (0.36–0.81)* |
| Multivariate | n=4869 |
| | 0.68 (0.44–1.05) |
| AHEI-2010 | |
| Univariate | n=5350 |
| | 0.64 (0.44–0.93)* |
| Multivariate | n=4869 |
| | 0.77 (0.51–1.17) |

OR: odds ratio. OR (95% CI) described in the table is the odds of mortality compared to the highest category to the lowest category of diet quality indices (HEIFA-2013, MDS and AHEI-2010). Quintile 4 and 5 were collapsed due to their small sample sizes. Adjusted covariates were age; socioeconomic status (residence, education, occupation and ability to manage income); lifestyle variables (smoking status, physical activity, taking prescribed and over-the-counter medicine), and history of depression and/or anxiety at baseline (Survey 3). * Statistically significant (p<0.05).