

Table 1. The nine Mediterranean diet components by tertile of Mediterranean diet score in the WACS Cognitive Cohort (n=2504)

| <i>Age-adjusted mean or percentage</i> | Mediterranean diet score |                        |                     | p-value* |
|--|--------------------------|------------------------|---------------------|----------|
|  | Low [0-3]<br>n=889       | Middle [4-5]<br>n=1012 | High [6-9]<br>n=603 |          |
| Monounsaturated / saturated fat ratio  | 1.0                      | 1.1                    | 1.2                 | <0.001   |
| Vegetable (serving/day)                | 2.6                      | 3.8                    | 4.7                 | <0.001   |
| Fruit (serving/day)                    | 1.9                      | 2.5                    | 3.0                 | <0.001   |
| Legumes (serving/day)                  | 0.3                      | 0.5                    | 0.6                 | <0.001   |
| Fish (serving/day)                     | 0.2                      | 0.3                    | 0.3                 | <0.001   |
| Grain (serving/day)                    | 1.5                      | 2.0                    | 2.3                 | <0.001   |
| Meat (serving/day)                     | 1.3                      | 1.2                    | 1.0                 | <0.001   |
| Dairy (serving/day)                    | 4.0                      | 3.1                    | 2.3                 | <0.001   |
| Alcohol intake (% consumers 5-25g/day) | 9%                       | 17%                    | 30%                 | <0.001   |

\*From Chi<sup>2</sup> test or variance analysis depending on the covariate type (categorical or numeric)

Table 2. Age-adjusted characteristics of WACS Cognitive Cohort by tertile of Mediterranean diet score  
(n=2504)

|  | Mediterranean diet score  |                           |                           | p- |
|--|---------------------------|---------------------------|---------------------------|----|
|  | Low [0-3]                 | Middle [4-5]              | High [6-9]                |    |
| Age at initial cognitive assessment** (y): Mean+/- SD<br>(range) | 71.9+/-3.9<br>(66.1-91.2) | 72.5+/-4.3<br>(66.1-90.5) | 72.6+/-4.0<br>(66.1-90.1) |    |
| <i>Cognitive score at initial cognitive assessment: Mean</i>     |                           |                           |                           |    |
| Global cognitive score† (standard unit)                          | 0.005                     | -0.026                    | 0.025                     |    |
| TICS (point)   | 34.4                      | 34.3                      | 34.6                      |    |
| Verbal memory† (standard unit)                                   | 0.002                     | -0.022                    | 0.039                     |    |
| Category fluency (point)   | 16.5                      | 16.4                      | 16.7                      |    |
| <i>Health and lifestyle characteristics: Mean or %</i>           |                           |                           |                           |    |
| Master's or a doctoral degree (%)                                | 8%                        | 10%                       | 15%                       | <  |
| Married (%)  | 58%                       | 61%                       | 64%                       |    |
| Physical activity‡ (mean kcal/wk)                                | 707                       | 949                       | 1138                      | <  |
| Use of multivitamin supplements (%)                              | 29%                       | 28%                       | 32%                       |    |
| Current smoker (%)   | 13%                       | 10%                       | 5%                        | <  |
| Body Mass Index (mean kg/m <sup>2</sup> )                        | 29.1                      | 28.8                      | 27.6                      | <  |
| History of depression (%)  | 16%                       | 16%                       | 12%                       |    |
| History of myocardial Infarction (%)                             | 20%                       | 22%                       | 21%                       |    |
| History of stroke (%)  | 8%                        | 8%                        | 9%                        |    |
| History of revascularization surgery (%)                         | 20%                       | 20%                       | 24%                       |    |
| History of angina (%)  | 43%                       | 46%                       | 47%                       |    |
| History of transient ischemic attack (%)                         | 15%                       | 15%                       | 14%                       |    |
| History of diabetes (%)  | 17%                       | 18%                       | 16%                       |    |

|                               | Mediterranean diet score |              |            | p- |
|-------------------------------|--------------------------|--------------|------------|----|
|                               | Low [0-3]                | Middle [4-5] | High [6-9] |    |
| History of hypertension (%)   | 78%                      | 78%          | 75%        |    |
| History of hyperlipidemia (%) | 72%                      | 76%          | 79%        |    |

SD: standard deviation; TICS: Telephone Interview of Cognitive Status

\*From Chi<sup>2</sup> test or variance analysis depending on the covariate type (categorical or numeric)

\*\*Not age-adjusted

†Global cognitive score is a composite score of the z-scores of the TICS, immediate and delayed recalls of the East Boston Memory Test, category fluency, and delayed recall of the TICS 10-word list; Verbal memory score is a composite score of the z-scores of the immediate and delayed recalls of both the TICS 10-word and the East Boston Memory Test

‡Weekly calories expended from exercise and climbing the stairs

Table 3. Adjusted mean differences (95% confidence intervals) in annual rates of cognitive decline by tertiles of Mediterranean Diet score (n=2504)

|   | Mediterranean Diet score |                    |                     | p-value for trend |
|---|--------------------------|--------------------|---------------------|-------------------|
|   | Low [0-3]                | Middle [4-5]       | High [6-9]          |                   |
| <i>Global cognitive score* (n=2504)</i> |                          |                    |                     |                   |
| Basic-adjusted model†                   | 0 (Reference)            | 0.01 ( 0.00, 0.02) | 0.00 (-0.01, 0.02)  | 0.67              |
| Multivariable-adjusted model‡           | 0 (Reference)            | 0.01 (-0.01, 0.02) | 0.00 (-0.02, 0.01)  | 0.88              |
| <i>TICS (n=2504)</i>                    |                          |                    |                     |                   |
| Basic-adjusted model†                   | 0 (Reference)            | 0.03 (-0.04, 0.10) | -0.01 (-0.09, 0.06) | 0.81              |
| Multivariable-adjusted model‡           | 0 (Reference)            | 0.02 (-0.05, 0.08) | -0.03 (-0.11, 0.05) | 0.53              |
| <i>Verbal memory* (n=2504)</i>          |                          |                    |                     |                   |
| Basic-adjusted model†                   | 0 (Reference)            | 0.01 (-0.01, 0.02) | 0.00 (-0.01, 0.02)  | 0.54              |
| Multivariable-adjusted model‡           | 0 (Reference)            | 0.00 (-0.01, 0.02) | 0.00 (-0.02, 0.02)  | 0.97              |
| <i>Category fluency (n=2499)</i>        |                          |                    |                     |                   |
| Basic-adjusted model†                   | 0 (Reference)            | 0.01 (-0.08, 0.11) | -0.03 (-0.14, 0.08) | 0.67              |
| Multivariable-adjusted model‡           | 0 (Reference)            | 0.01 (-0.08, 0.11) | -0.03 (-0.14, 0.08) | 0.64              |

TICS: Telephone Interview of Cognitive Status

\*Global cognitive score is a composite score of the z-scores of the TICS, immediate and delayed recalls of the East Boston Memory Test, category fluency, and delayed recall of the TICS 10-word list; Verbal memory score is a composite score of the z-scores of the immediate and delayed recalls of both the TICS 10-word and the East Boston Memory Test

†Adjusted for age (years), education (licensed practical nurse, vocational nurse or associate's degree; registered nurse degree or bachelor's degree; master's or doctoral degree) and energy from diet (quartiles)

‡Further adjusted for marital status (married, divorced, widowed, single), physical activity (quartiles of weekly calories expended from exercise and climbing the stairs), use of multivitamin supplements (no,

yes), smoking status (never, past, current), body mass index (quartiles), postmenopausal hormone therapy use (never, past, current), aspirin use exceeding 10 days in the previous month (no, yes), non-steroidal anti-inflammatory drug use exceeding 10 days in the previous month (no, yes), history of depression (no, yes), cardiovascular profile at baseline (myocardial infarction, stroke, revascularization procedures, symptomatic angina pectoris, transient cerebral ischemia, no clinical disease), diabetes (no, yes), hypertension (no, yes on pharmaceutical treatment, yes without pharmaceutical treatment), hyperlipidemia (no, yes on pharmaceutical treatment, yes without pharmaceutical treatment), and randomization assignment for vitamin E (placebo, active), vitamin C (placebo, active), beta-carotene (placebo, active), and folate (not assigned, placebo, active)