Supplementary material

Life expectancy with and without dementia in persons with mild cognitive impairment

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Supplementary Figure S1. Flow diagram of the study population

*4448 (63%) had subjective cognitive complaints, 698 (10%) had objective cognitive impairment. The overlapping 655 participants met the criteria for mild cognitive impairment (MCI).
### Supplementary Table S1. Baseline characteristics by MCI subtype

| Characteristic                                | Amnestic MCI          | Non-amnestic MCI | P-value |
|-----------------------------------------------|-----------------------|------------------|---------|
| N                                             | 243                   | 405              |         |
| Age at study entry*                           | 70.46                 | 72.16            | .029    |
|                                               | [65.08, 76.29]        | [64.93, 79.86]   |         |
| Age at dementia                               | 80.33 (6.37)          | 81.88 (6.76)     | .179    |
| Women                                         | 104 (42.8)            | 245 (60.5)       | <.001   |
| Education                                     |                       |                  | .004    |
| Primary education                             | 30 (12.4)             | 90 (22.4)        |         |
| Further education                             | 173 (71.8)            | 268 (66.7)       |         |
| Higher education                              | 38 (15.8)             | 44 (10.9)        |         |
| *APOE genotype                                |                       |                  | .291    |
| ε4 non-carrier                                | 150 (65.8)            | 260 (70.3)       |         |
| ε4 carrier                                    | 78 (34.2)             | 110 (29.7)       |         |
| Smoking status                                |                       |                  | .002    |
| Never smoker                                  | 47 (19.9)             | 127 (32.8)       |         |
| Former smoker                                 | 134 (56.8)            | 176 (45.5)       |         |
| Current smoker                                | 55 (23.3)             | 84 (21.7)        |         |
| Systolic blood pressure, mmHg                 | 148.69 (23.71)        | 147.43 (21.29)   | .499    |
| Diastolic blood pressure, mmHg                | 79.84 (12.24)         | 80.89 (10.45)    | .265    |
| Antihypertensive medication                   | 103 (43.8)            | 193 (50.9)       | .104    |
| Body mass index, kg/m²                        | 28.25 (4.03)          | 27.92 (4.42)     | .366    |
| Type 2 diabetes                               | 36 (15.3)             | 64 (17.2)        | .603    |
| History of stroke                             | 27 (11.1)             | 41 (10.1)        | .791    |
| Serum total cholesterol, mmol/L               | 5.48 (1.02)           | 5.36 (1.04)      | .227    |
| Serum high-density lipoprotein cholesterol, mmol/L | 1.43 (0.40)         | 1.40 (0.40)      | .506    |
| MMSE                                          | 27.39 (2.22)          | 27.08 (2.56)     | .439    |
| MMSE*                                         | 28 [26-29]            | 28 [26-29]       | .627    |

Values are counts (%) or means (standard deviation), unless specified differently.

*Values expressed as at entry (median [interquartile range]).

MCI, mild cognitive impairment; IQR, interquartile range; *APOE*, Apolipoprotein E; MMSE, mini-mental state examination.
Supplementary Table S2. Characteristics of eligible participants who were included versus who were not included in the study

| Characteristic                        | Included       | Excluded      | P-value |
|---------------------------------------|----------------|---------------|---------|
| N                                     | 7058           | 842           |         |
| Age at study entry*                   | 68.2 [63.5-75.2]| 77.6 [60.1-100.1]| <.001   |
| Women                                 | 4032 (57.1)    | 546 (64.8)    | <.001   |
| Education                             |                |               |         |
| Primary education                     | 774 (11.1)     | 187 (22.4)    | <.001   |
| Further education                     | 5030 (72.1)    | 560 (67.1)    |         |
| Higher education                      | 1177 (16.9)    | 88 (10.5)     |         |
| APOE genotype                         |                |               | .115    |
| ε4 non-carrier                        | 4793 (72.5)    | 491 (69.9)    |         |
| ε4 carrier                            | 1816 (27.5)    | 214 (30.4)    |         |
| Smoking status                        |                |               | .101    |
| Never smoker                          | 2171 (31.4)    | 268 (35.1)    |         |
| Former smoker                         | 3495 (50.6)    | 370 (48.5)    |         |
| Current smoker                        | 1245 (18.0)    | 125 (16.4)    |         |
| Type 2 diabetes                       | 772 (11.3)     | 141 (22.2)    | <.001   |
| History of stroke                     | 296 (4.2)      | 62 (7.4)      | <.001   |
| Systolic blood pressure, mmHg         | 148 (22)       | 152.2 (24.5)  | .001    |
| Diastolic blood pressure, mmHg        | 80 (11)        | 80.1 (11.5)   | .069    |
| Body mass index, kg/m²                | 28.1 (4.3)     | 28.1 (4.3)    | .214    |
| Serum total cholesterol, mmol/L       | 5.59 (1.01)    | 5.57 (1.04)   | .772    |
| Serum high-density lipoprotein cholesterol, mmol/L | 1.46 (0.40)     | 1.44 (0.41)   | .447    |
| MMSE, score                           | 26.75 (3.43)   | 26.28 (3.32)  | .014    |
| MMSE, score*                          | 28 [26-29]     | 27 [25-29]    | <.001   |

842 participants were eligible for the current study but had no data on either subjective cognitive complaints or objective cognitive impairment (required for assessment of mild cognitive impairment). Values are counts (%) or means (standard deviation), unless specified differently.

* Values expressed as median [interquartile range].

Abbreviations: APOE, Apolipoprotein E; MMSE, mini-mental state examination.
**Supplementary Table S3. Life expectancy with and without dementia at age 70, 80 and 90**

|                  | Age 70                                      | Age 80                                      | Age 90                                      |
|------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
|                  | Total life expectancy (95% CI) | Years with dementia (95% CI) | Years of life lost (95% CI) | Total life expectancy (95% CI) | Years with dementia (95% CI) | Years of life lost (95% CI) | Total life expectancy (95% CI) | Years with dementia (95% CI) | Years of life lost (95% CI) |
| **Overall Sex**  |                                |                                |                                 |                                |                                |                                 |                                |                                |                                 |
| Men              | 12.2 (9.9; 14.5)                  | 2.0 (1.0; 3.1)                   | 3.5 (1.1; 5.8)                    | 6.8 (4.8; 8.8)                   | 1.7 (0.6; 2.8)                   | 1.8 (-0.2; 3.9)                  | 3.3 (1.5; 5.1)                   | 1.0 (-0.2; 2.2)                 | 0.4 (-1.4; 2.3)                 |
| Women            | 15.4 (13.2; 17.6)                 | 3.8 (2.2; 5.0)                   | 3.6 (1.2; 5.8)                    | 8.9 (7.0; 10.9)                  | 3.1 (1.6; 4.6)                   | 2.1 (0.1; 4.2)                   | 4.3 (2.5; 6.2)                   | 1.9 (0.4; 3.5)                  | 0.9 (-1.5; 3.3)                 |
| **Education**    |                                |                                |                                 |                                |                                |                                 |                                |                                |                                 |
| Primary          | 14.2 (13.7; 14.6)                 | 2.3 (2.0; 2.5)                   | 2.9 (2.3; 3.5)                    | 8.3 (7.8; 8.9)                   | 2.0 (2.0; 2.5)                   | 1.5 (0.9; 2.2)                   | 4.3 (3.3; 5.3)                   | 1.4 (0.7; 2.1)                  | 0.4 (-0.8; 1.5)                 |
| Further          | 13.7 (13.3; 14.2)                 | 2.9 (2.6; 3.2)                   | 3.8 (3.2; 4.3)                    | 8.0 (7.4; 8.5)                   | 2.5 (2.1; 2.9)                   | 2.1 (1.5; 2.8)                   | 4.1 (3.0; 5.1)                   | 1.8 (0.9; 2.6)                  | 0.7 (-0.5; 1.8)                 |
| Higher           | 14.3 (13.8; 14.8)                 | 4.1 (3.7; 4.5)                   | 4.6 (3.9; 5.2)                    | 8.3 (7.6; 8.9)                   | 3.5 (2.9; 4.0)                   | 2.9 (2.2; 3.7)                   | 4.2 (3.0; 5.4)                   | 2.4 (1.3; 3.5)                  | 1.2 (-0.1; 2.5)                 |
| **MCI subtype**  |                                |                                |                                 |                                |                                |                                 |                                |                                |                                 |
| Amnestic MCI     | 13.8 (11.6; 16.1)                 | 3.4 (1.9; 5.0)                   | -                                | 8.0 (5.9; 10.0)                  | 2.8 (1.3; 4.4)                   | -                                | 4.1 (2.3; 5.9)                   | 2.0 (0.4; 3.6)                  | -                               |
| Non-amnestic MCI | 13.9 (11.5; 16.2)                 | 2.6 (1.4; 3.8)                   | -                                | 8.2 (6.2; 10.1)                  | 2.3 (1.1; 3.6)                   | -                                | 4.3 (2.5; 6.1)                   | 1.8 (0.3; 3.2)                  | -                               |