Supplementary figure 1. Flowchart

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| **Supplementary figure 1. Flowchart** |
| **Table  Description automatically generated** |

Supplementary Table 1. Baseline characteristics of included and excluded offspring

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| **Supplementary Table 1. Baseline characteristic of included and excluded offspring** | | | |
|  | **Group** | |  |
| **Offspring Variables** | **Included offspring** | **Excluded offspring** | **P-value** |
| **No of children** | 13,478 | 12,272 |  |
| **Sex** |  |  | <0.01 |
| **Male** | 36% | 59% |  |
| **Female** | 64% | 41% |  |
| **Age in 2010†, years, mean (SD)** | 18.98 (1.87) | 19.15 (1.87) | 0.6 |
| **Maternal Variables** |  |  |  |
| **Maternal antidepressant use at baseline, yes** | 21% | 24% | 0.34 |
| **Lifestyle factors** |  |  |  |
| **Alternate healthy eating index 2010, diet score, mean (SD)** | 24.49 (6.67) | 24.36 (6.85) | 0.44 |
| **Body mass index, kg/m2, mean (SD)** | 23.74 (4.51) | 24.06 (4.62) | <0.01 |
| **Moderate/vigorous-intensity exercise, hour/week, mean (SD)** | 2.382 (3.355) | 2.296 (3.209) | 0.86 |
| **Alcohol intake, g/day, mean (SD)** | 2.714 (5.231) | 2.701 (5.068) | 0.53 |
| **Smoking status, (%)** |  |  | <0.01 |
| **Never smoker** | 72% | 68% |  |
| **Former smoker** | 21% | 23% |  |
| **Current smoker** | 7% | 9% |  |

Supplementary Table 2. Correlations between CESD scores at four-time points

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| **Supplementary Table 2. Correlations between CESD scores at four time points** | | | | |
|  | 1. | 2. | 3. | 4. |
| 1. CESD scores in 2010/2011 | 1.00 |  |  |  |
| 1. CESD scores in 2013 | 0.51\*\* | 1.00 |  |  |
| 1. CESD scores in 2014 | 0.49\*\* | 0.58\*\* | 1.00 |  |
| 1. CESD scores in 2016 | 0.45\*\* | 0.52\*\* | 0.54\*\* | 1.00 |
| Note. \*\* p-value <0.001. | | | | |

Supplementary Table 3. Modification of the effect of maternal healthy lifestyle scores on offspring depression scores by offspring age

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| **Supplementary Table 3. Modification of the effect of maternal healthy lifestyle scores on offspring depression scores by offspring age** | | |
|  | **Estimate** | **P- value** |
| **Offspring age > 18 years** | **0.18 (-0.09, 0.45)** | **0.19** |
| **Maternal healthy lifestyle scores** | **-0.15 (-0.09, -0.21)** | **<0.001** |
| **Offspring age > 18 years\* Maternal healthy lifestyle scores** | **-0.14 (-0.06, -0.22)** | **<0.001** |

Supplementary Table 4. Modification of the effect of maternal healthy lifestyle scores on offspring depression scores by offspring sex

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| **Supplementary Table 4. Modification of the effect of maternal healthy lifestyle scores on offspring depression scores by offspring sex** | | |
|  | **Estimate** | **P- value** |
| **Offspring female** | **0.63 (0.24, 1.02)** | **0.002** |
| **Maternal healthy lifestyle scores** | **0.02 (-0.08, 0.12)** | **0.73** |
| **Offspring female\* Maternal healthy lifestyle scores** | **-0.18 (-0.30, -0.06)** | **0.004** |

Supplementary Table 5. Association of offspring healthy lifestyle score with offspring depression score (CESD-10†)

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| Supplementary Table 5. Association of offspring healthy lifestyle score with offspring depression score (CESD-10†) | | | | | |
| The offspring healthy lifestyle score | | | | | |
|  | | **Offspring depression score (CESD-10)** | | | |
| Unadjusted model | | Adjusted model | |
| Estimate (95% CI) | P-value | Estimate (95% CI) | P-value |
| Healthy lifestyle score | 1 | 0 (Ref.) | - | 0 (Ref.) | - |
|  | 2 | -0.53 (-0.74, -0.33) | <0.001 | -0.55 (-0.74, -0.36) | <0.001 |
|  | 3 | -0.97 (-1.17, -0.78) | <0.001 | -1.01 (-1.20, -0.83) | <0.001 |
|  | 4 | -1.27 (-1.48, -1.48) | <0.001 | -1.31 (-1.50, -1.11) | <0.001 |
|  | 5 (most healthy) | -1.73 (-2.06, -2.06) | <0.001 | -1.78 (-2.11, -1.45) | <0.001 |
| The adjusted model adjusted for race/ethnicity, offspring age, and sex (boy/girl).  †Center for Epidemiological Studies Depression Scale-10 (CESD-10) | | | | | |