**Supplementary Table 2** Descriptives of cohort studies included in the pooled analysis (total *n* = 32 487)a

| Target sample | NEMESIS-2 (*n* = 6381) | HELIUS (*n* = 4634) | NTR (*n* = 11 388) | NESDA (*n* = 2472) | HOORN (*n* = 2667) | LASA (*n* = 1893) | NL-SH (*n* = 1575) | Generations2 (*n* = 1477) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| General population | General urban population | Twins, spouses and relatives in general population | Psychiatric cohort | Diabetes cohort in general population | Aging cohort in general population | Hearing cohort in general population | Pregnancy cohort in general population |
| Cohort assessment | 2007–2009 | 2011–2015 | 2009–2010 | 2004–2007 | 2006–2007 | 2005–2006 | 2006–2008 | 2009–2015 |
| Linked GIS data | ±2008 | ±2012 | ±2009 | ±2006 | ±2006 | ±2006 | ±2006 | ±2009 and ±2012 |
| Person-level sociodemographic factors |
|  Age, mean years (s.d.) | 44 (13) | 46 (14) | 47 (13) | 42 (13) | 53 (7) | 71 (9) | 46 (12) | 35 (47) |
|  Women, % | 55 | 54 | 62 | 66 | 53 | 55 | 64 | 100 |
|  Education, mean years (s.d.) | 13 (3) | 14 (3) | 13 (2) | 12 (3) | 11 (7) | 10 (3) | 13 (3) | 14 (2) |
|  (Household) income (€ net/month), % |
|   Low | 23 | n.a. | n.a. | 265 | n.a. | 31 | 45 | 9 |
|   Medium | 41 | n.a. | n.a. | 60 | n.a. | 47 | 38 | 52 |
|   High | 25 | n.a. | n.a. | 13 | n.a. | 19 | 7 | 27 |
|   Unknown | 11 | n.a. | n.a. | 0.2 | n.a. | 3 | 10 | 12 |
| Neighbourhood characteristics |
|  Number of municipalities (m) or neighbourhoods (n) | 193 (m) | 1 (m)46 (n) | 438 (m) | 205 (m) | 1 (m)10 (n) | 83 (m) | 346 (m) | 267 (m) |
|  Urbanisation grade % |
|   Not urbanised (<500 addresses/km2) | 18 | 0.3 | 19 | 8 | 0 | 16 | 14 | 10 |
|   Hardly urbanised (500–1000 addresses/km2) | 22 | 0.1 | 22 | 8 | 11 | 27 | 17 | 14 |
|   Moderate (1000–1500 addresses/km2) | 18 | 0.2 | 21 | 19 | 28 | 8 | 23 | 18 |
|   Strong (1500–2500 addresses/km2) | 24 | 11 | 23 | 23 | 60 | 28 | 25 | 26 |
|   Extreme (≥2500 addresses/km2) | 18 | 87 | 15 | 42 | 0 | 21 | 21 | 29 |
|  *Neighbourhood socioeconomic characteristics* |
|   Socioeconomic status score, median [IQR] | 0.3 [−0.4, 0.7] | −0.6 [−1.3, 0.9] | 0.3 [−0.3, 0.9] | 0.1 [−0.9, 0.6] | −0.04 [−0.1, 0.2] | 0.3 [−0.2, 0.5] | 0.3 [−0.4, 0.7] | 0.4 [−0.6, 1.0] |
|   Home value (in k€), median [IQR] | 233 [193, 281] | 238 [181, 277] | 249 [205 297] | 204 [156, 248] | 181 [168, 191] | 208 [186, 234] | 205 [168, 250] | 233 [190, 285] |
|   Social security beneficiaries (/1000 households), median [IQR] | 25 [14, 44] | 80 [48, 125] | 19 [10–35] | 45 [23, 75] | 43 [37, 56] | 22 [16, 56] | 33 [18, 57] | 26 [13, 63] |
|   % non-Dutch origin, median [IQR] | 15 [9, 24] | 42 [37, 56] | 13 [8, 21] | 21 [13, 34] | 17 [15, 26] | 11 [6, 27] | 17 [11, 25] | 20 [12, 35] |
|  *Neighbourhood physical characteristics* |
|   Air pollution: PM2.5 absorbance (10−5/m), mean(s.d.) | 1.3 (0.2) | 1.6 (0.3) | 1.3 (0.2) | 1.4 (0.3) | 1.2 (0.03) | 1.2 (0.2) | 1.3 (0.2) | 1.3 (0.6) |
|   Traffic noise (Lden in dB/24 h), mean (s.d.) | 55 (3.3) | 60 (2.5) | 54 (5.0) | 55 (3.2) | 54 (2.3) | 53 (3.3) | 54 (3.6) | 56 (5.0) |
|   % Green space, mean (s.d.) | 37 (26) | 13 (12) | 39 (26) | 26 (23) | 22 (8) | 38 (24) | 33 (25) | 31 (24) |
|   % Water, median [IQR] | 2.1 [0.6, 5.2] | 10 [6.1, 17] | 1.9 [0.5, 4.9] | 4.5 [1.8, 7.1] | 1.9 [1.8–2.2] | 4.9 [1.3, 9.9] | 2.1 [0.6, 5.1] | 4.2 [1.3, 8.4] |
|  *Neighbourhood social characteristics* |
|   Social cohesion score, mean (s.d.) | −0.03 (13) | −6.5 (12) | 2.5 (12.8) | −5.1 (14) | −5.6 (7) | 2.2 (13.1) | −1.8 (13) | −1.7 (13) |
|   Safety score, median [IQR] | 9.9 [−16, 30] | −42 [−44, −37] | 15 [−10,32] | −21 [−39, 5.9] | −32 [−38, −30] | 8.0 [−24, 29] | −0.6 [−28, 20] | 3.1 [−28, 24] |
| Depression |
|  Depressed cases, % | CIDI: 6.4 | PHQ-9 ≥ 10: 7.3 | HADS-D ≥ 8: 6.3 | CIDI: 52 | CESD ≥ 23: 5.1 | CESD ≥ 23: 5.0 | 4DSQ ≥ 6: 5.8 | BDI-II ≥ 20: 4.0 |
|  Depressive symptoms, mean score (s.d.) | n.a. | PHQ-9: 3.6 (3.8) | HADS-D: 2.9 (2.7) | IDS: 22 (15) | CESD: 7.4 (8) | CESD: 8.3 (7.3) | 4DSQ: 1.0 (2.3) | BDI-II: 10 (4.8) |

NEMESIS-2, Netherlands Mental Health Survey and Incidence Study-2; HELIUS, Healthy Life in an Urban Setting study; NTR, Netherlands Twin Register; NESDA, Netherlands Study of Depression and Anxiety; Hoorn, New Hoorn Study; LASA, Longitudinal Aging Study Amsterdam; NL-SH, Netherlands Longitudinal Study on Hearing.

a. Details on geographic information system data linkage and categories used for income are described in supplementary Appendix 1.