**SUPPLEMENTARY MATERIAL**

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| --- |
| **Table S1.** Number of participants (and number of total person-observations) by age, time period, and birth cohort (n=30224 unique individuals). |
|   | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85+ | Total |
| Time period |  |  |  |  |  |  |  |  |  |
| 1991-1994 | 2573; 5777 | 2933; 7661 | 2516; 6584 | 2209; 6584 | 1569; 4167 | 1429; 3940 | 782; 2043 | 193; 411 | 14204; 36455 |
| 1995-1999 | 3182; 7704 | 3642; 9946 | 3255; 9398 | 2796; 8301 | 2072; 5724 | 1854; 5204 | 1205; 3202 | 348; 816 | 18354; 50295 |
| 2000-2004 | 4572; 11195 | 4784; 13962 | 5052; 16031 | 4220; 12962 | 3503; 11122 | 2637; 8254 | 1845; 5458 | 464; 1141 | 27077; 80125 |
| 2005-2009 | 2567; 6607 | 3302; 8683 | 3682; 10494 | 3210; 8932 | 2847; 8173 | 2022; 5699 | 1379; 3749 | 423; 992 | 19432; 53329 |
| Birth Cohort |  |  |  |  |  |  |  |  |  |
| 1894-1919 |  |  |  |  |  | 236; 430 | 1036; 4452 | 751; 2886 | 2023; 7768 |
| 1920-1929 |  |  |  |  | 360; 664 | 1767; 8737 | 1672; 8838 | 232; 474 | 4031; 18713 |
| 1930-1939 |  |  |  | 408; 733 | 1810; 9047 | 2047; 12311 | 495; 1162 |  | 4760; 23253 |
| 1940-1949 |  |  | 615; 1088 | 2621; 13762 | 2883; 17474 | 695; 1619 |  |  | 6814; 33853 |
| 1950-1959 |  | 621; 1118 | 2808; 14421 | 3266; 19183 | 849; 2001 |  |  |  | 9394; 44695 |
| 1960-1969 | 610; 1032 | 3611; 16670 | 4104; 24514 | 1069; 2479 |  |  |  |  | 8882; 36315 |
| 1970-1979 | 3779; 13386 | 4053; 20445 | 1050; 2484 |  |  |  |  |  | 5211; 18884 |
| 1980-1989 | 4285; 16865 | 926; 2019 |  |  |  |  |  |  |  |
| Total | 8674; 31283 | 9211; 40252 | 8577; 42507 | 7364; 36067 | 5902; 29186 | 4745; 23097 | 3203; 14452 | 983: 3360 | 30224; 220204 |

**Fig. S1.** Age trajectories for each of the 12 GHQ items (fitted with multilevel logistic regressions similar to the regression model described in Table 1, Model 3). All items are coded so that 0=no symptom (response options “not at all” and “no more than usual”) and 1=symptom of psychological distress present (response options “rather more than usual” and “much more than usual”), so higher item probability indicates higher psychological distress. For clarity, the item labels in the legend are ordered following the item’s prevalence at age 15-24.



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | 1991-1994 | 1995-1999 | 2000-2004 | 2005-2009 |   | OR (95% CI); p |
| 15-24 | 25.8 | 26.6 | 26.4 | 27.8 |   | 1.01 (0.98-1.04); p=.44 |
| 25-34 | 27.4 | 27.1 | 25.9 | 26.1 |  | 0.98 (0.95-1.00); p=.04 |
| 35-44 | 28.3 | 28.5 | 27.2 | 26.7 |  | 0.97 (0.95-1.00); p=.03 |
| 45-54 | 28.8 | 28.5 | 27.4 | 27.1 |  | 0.97 (0.95-1.00); p=.06 |
| 55-64 | 24.7 | 26.1 | 25.2 | 24.6 |  | 0.99 (0.97-1.02); p=.72 |
| 65-74 | 22.0 | 23.6 | 24.4 | 24.1 |  | 1.04 (1.01-1.08); p=.01 |
| 75-84 | 29.5 | 29.1 | 31.5 | 32.2 |  | 1.07 (1.03-1.11); p<.001 |
| 85+ | 34.2 | 34.9 | 40.7 | 43.3 |   | 1.18 (1.09-1.28); p<.001 |

**Fig. S2.** Common mental disorders (GHQ caseness; %) according to age and time period, adjusted for sex, race/ethnicity, subsample, and age deviation from age group median. Error bars are 95% confidence intervals. The table reproduces the figure in numbers, and gives the model-implied odds ratios for period effects by age groups (calculated from age group by time period interaction effects).



|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | 1980s | 1970s | 1960s | 1950s | 1940s | 1930s | 1920s | ≤1910s | OR (95% CI); p |
| 15-24 | 26.0 | 26.6 | 28.6 |   |   |   |   |   | 1.07 (1.01-1.13); p=.01 |
| 25-34 | 25.7 | 25.6 | 28.3 | 26.1 |  |  |  |  | 1.07 (1.03-1.11); p<.01 |
| 35-44 |  | 26.9 | 27.6 | 28.3 | 28.8 |  |  |  | 1.03 (0.99-1.08); p=.10 |
| 45-54 |  |  | 27.8 | 27.6 | 28.6 | 24.1 |  |  | 1.00 (0.96-1.04); p=.94 |
| 55-64 |  |  |  | 26.5 | 24.9 | 23.9 | 23.6 |  | 0.95 (0.90-1.00); p=.03 |
| 65-74 |  |  |  |  | 22.5 | 22.8 | 23.8 | 23.3 | 1.00 (0.95-1.06); p=.96 |
| 75-84 |  |  |  |  |  | 27.3 | 31.9 | 30.6 | 1.02 (0.94-1.09); p=.67 |
| 85+ |   |   |   |   |   |   | 40.6 | 40.0 | 1.00 (0.82-1.21); p=.97 |

**Fig. S3.** Common mental disorders (GHQ caseness; %) according to age and birth cohort, adjusted for sex, race/ethnicity, subsample, and age deviation from age group median. Error bars are 95% confidence intervals. The table reproduces the figure in numbers, and gives the model-implied odds ratios for cohort effects by age groups (calculated from age group by birth cohort interaction effects).



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | 1991-1994 | 1995-1999 | 2000-2004 | 2005-2009 | OR (95% CI); p |
| 15-24 | 1.5 | 2.1 | 2.1 | 2.0 | 1.07 (0.97-1.17); p=.16 |
| 25-34 | 2.1 | 2.6 | 2.6 | 2.5 | 1.04 (0.97-1.11); p=.29 |
| 35-44 | 2.6 | 3.2 | 2.9 | 2.4 | 0.94 (0.88-1.00); p=.04 |
| 45-54 | 2.4 | 3.0 | 2.8 | 2.7 | 1.00 (0.94-1.07); p=.94 |
| 55-64 | 1.3 | 1.7 | 2.0 | 2.3 | 1.17 (1.07-1.29); p<.001 |
| 65-74 | 1.0 | 1.2 | 1.1 | 0.8 | 0.94 (0.82-1.08); p=.41 |
| 75-84 | 1.0 | 1.0 | 1.0 | 0.6 | 0.85 (0.70-1.03); p=.09 |
| 85+ | 0.3 | 0.7 | 0.5 | 1.2 | 1.44 (0.90-2.32); p=.13 |

**Fig. S4.** Psychotherapy treatment utilization during the last year (%) according to age and time period, adjusted for sex, race/ethnicity, subsample, age deviation from age group median, and follow-up interval length. Error bars are 95% confidence intervals. The table reproduces the figure in numbers, and gives the model-implied odds ratios for period effects by age groups (calculated from age group by time period interaction effects).



|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | 1980s | 1970s | 1960s | 1950s | 1940s | 1930s | 1920s | ≤1910s | OR (95% CI); p |
| 15-24 | 2.1 | 1.8 | 1.3 |   |   |   |   |   | 0.84 (0.70-1.00); p=.05 |
| 25-34 | 1.8 | 2.6 | 2.5 | 2.8 |  |  |  |  | 1.07 (0.95-1.20); p=.29 |
| 35-44 |  | 1.8 | 3.0 | 2.9 | 1.9 |  |  |  | 1.10 (0.99-1.22); p=.09 |
| 45-54 |  |  | 3.3 | 2.7 | 2.8 | 2.3 |  |  | 1.00 (0.89-1.12); p=.97 |
| 55-64 |  |  |  | 2.6 | 2.2 | 1.4 | 0.9 |  | 0.72 (0.62-0.84); p<.01 |
| 65-74 |  |  |  |  | 1.0 | 1.1 | 0.9 | 0.7 | 0.97 (0.77-1.23); p=.82 |
| 75-84 |  |  |  |  |  | 0.8 | 0.7 | 1.1 | 1.26 (0.88-1.82); p=.21 |
| 85+ |   |   |   |   |   |   | 1.1 | 0.6 | 0.54 (0.20-1.46); p=.22 |

**Fig. S5.** Psychotherapy treatment utilization during the last year (%) according to age and birth cohort, adjusted for sex, race/ethnicity, subsample, age deviation from age group median, and follow-up interval length. Error bars are 95% confidence intervals. The table reproduces the figure in numbers, and gives the model-implied odds ratios for cohort effects by age groups (calculated from age group by birth cohort interaction effects).