**Supplementary Content**

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| **eTable 1: Diagnostic Codes based on International Classification Diseases Codes (ICD-codes)** |
|  | **ICD-8** | **ICD-10** |
| **Mild Traumatic Brain Injury (concussions)** | 850.99 | S06.0 |
| **Skull or spine fracture (without documented structural brain injury)** | 800, 801, 803 | S02.0, S02.1, S02.7, S02.9 |
| **Severe Traumatic Brain Injury (with evidence of structural brain injury)** | 851-854 | S06.1-S06.9 |
| **Suicide Attempt** | 950-959 | X60-X84 |
| **Fractures not involving the skull or spine**  | 807-829 | S12.8A-S12.8D, S22.2-S22.5, S22.8, S22.9, S32.3-S32.5, S42.0-S42.7, S52.0-S52.9, S62.0-S62.8, S72.0-S72.4, S72.7-S72.9, S82.0-S82.9, S92.0-S92.5, S92.7, S92.9, T10, T12 |
| **Epilepsy**  | 345 | G40-G41 |
| **Psychiatric Diagnoses**  | 290-315 | F00-99 |
| **CHARLSON comorbidity index1** *Disorder (weight1)*  |  |  |
|  Acute myocardial infarction (1)  | 410 | I21, I22, I252 |
|  Congestive heart failure (1)  | 427.0, 427.1 | I50 |
|  Peripheral vascular disease (1)  | 441, 443.9, 445 | I71, I739, I790, R02, Z958, Z959 |
|  Cerebral vascular accident (1)  | 430-438 | G450 - G452, G454, G458, G459, G46, I60 - I66, I670 - I672, I674, I675 - I679, I681, I682, I688, I69 |
|  Dementia (1)  | 290 | F00 - F02, F051 |
|  Pulmonary disease (1)  | 490-493 | J40 - J47, J60 - J67 |
|  Connective tissue disorder (1)  | 695.4, 712.1 - 712.3, 712.5, 716, 734.0, 734.1 | M050 - M053, M058 - M060, M063, M069, M32,M332, M34, M353 |
|  Peptic ulcer (1)  | 531-534 | K25 - K28 |
|  Liver disease (1)  | 571, 572, 573.0 | K702, K703, K717, K73, K740, K742 - K746 |
|  Diabetes (1)  | 250 | E101, E105, E109, E111, E115, E119, E131,E135, E139, E141, E145, E149 |
|  Diabetes complications (2)  |  | E102 - E104, E112 - E114, E132 - E134,E142 - E144 |
|  Paraplegia (2)  | 344.1, 344.2 | G041, G81 G820 - G822 |
|  Renal disease (2)  | 582, 583, 593.0, 593.2 | N01, N03, N052 - N056, N072 - N074, N18,N19, N25 |
|  Cancer (2)  | 140 - 172, 174, 180 - 195, 200 - 207 | C0 - C3, C40, C41, C43, C45 - C49, C5, C6, C70 - C76, C81 - C85, C883, C887, C889, C900, C901, C91 - C93, C940 - C943, C9451, C947, C95, C96 |
|  Metastatic cancer (3)  | 196 - 199 | C77 - C80 |
|  Severe liver disease (3)  |  | K721, K729, K766, K767 |
|  HIV (6)  |  | B20 - B24 |
| 1The Charlson comorbidity index is a measure of chronic comorbidity, rated by a weighted score (ranging from 1, 2, 3, or 6) based on the relative risk of 1-year mortality. |

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| **eTable 2: Criminal codes1**  |
| **Sexual crimes** | 1110, 1120, 1130, 1131, 1140, 1141, 1145, 1150, 1160, 1172, 1174, 1176 |
| **Violence** | 1210, 1220, 1230, 1240, 1252, 1255, 1258, 1260 1270, 1280, 1283, 1286, 1289, 1292 |
| **Homicide and Attempted Homicide** | 1230, 1240 |
| **Arson** | 1312 |
| **Robbery** | 1380 |
| **Vandalism** | 1390 |
| **Driving Accidents and Drunk Driving** | 1460, 2110, 2210, 2220 |
| **Possession of weapon in public space** | 3410 |
| **Terrorism** | 1410364 ,1410367,1410368, 1410370, 1410379 |
| 1 From <https://www.dst.dk/da/Statistik/dokumentation/Times/kriminalstatistik/afg-ger7> (in Danish). |

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| **eTable 3:** **Numbers and Incidence Rates of Suicide Attempt Among Females With or Without a TBI diagnosis** |
|   | **No TBI** | **TBI** |
| Characteristics | n  | PY | IR per 100.000 PY (95%CI) | n  | PY | IR per 100.000 PY (95%CI) |
| Total |  63,368  |  83,783,988  |  75.6 (75.0-76.2)  |  7,701  |  3,583,065  | 214.9 (210.1-219.7) |
| *Age-group (yrs)* |   |   |   |   |   |
| 10-19 |  14,534  |  11,592,035  |  125.4 (123.3-127.4)  |  1,775  |  584,405  |  303.7 (289.6-317.9)  |
| 20-29 |  12,150  |  12,159,819  |  99.9 (98.1-101.7)  |  1,813  |  740,453  |  244.9 (233.6-256.1)  |
| 30-39 |  10,263  |  13,072,257  |  78.5 (77.0-80.0)  |  1,524  |  660,977  |  230.6 (219.0-242.1)  |
| 40-49 |  10,033  |  12,957,783  |  77.4 (75.9-78.9)  |  1,294  |  511,219  |  253.1 (239.3-266.9)  |
| 50-59 |  6,461  |  11,600,314  |  55.7 (54.3-57.1)  |  698  |  366,560  |  190.4 (176.3-204.5)  |
| 60-69 |  4,122  |  10,105,110  |  40.8 (39.5-42.0)  |  300  |  285,326  |  105.1 (93.2-117.0)  |
| 70-79 |  3,521  |  7,570,864  |  46.5 (45.0-48.0)  |  173  |  219,625  |  78.8 (67.0-90.5)  |
| 80+ |  2,284  |  4,725,805  |  48.3 (46.3-50.3)  |  124  |  214,500  |  57.8 (47.6-68.0)  |
|  *Educational level*  |   |   |   |   |   |
|  Elementary school  |  26,178  |  25,341,732  |  103.3 (102.0-104.6)  |  2,760  |  926,320  |  298.0 (286.8-309.1)  |
|  Vocational training  |  15,671  |  23,260,279  |  67.4 (66.3-68.4)  |  1,968  |  1,005,216  |  195.8 (187.1-204.4)  |
|  High school  |  3,512  |  5,523,298  |  63.6 (61.5-65.7)  |  286  |  205,831  |  138.9 (122.8-155.1)  |
|  University degree  |  8,756  |  18,022,759  |  48.6 (47.6-49.6)  |  1,011  |  722,811  |  139.9 (131.2-148.5)  |
|  Ongoing/missing  |  9,251  |  11,635,920  |  79.5 (77.9-81.1)  |  1,676  |  722,888  |  231.8 (220.7-242.9)  |
|  *Socioeconomic status*  |   |   |   |   |   |
|  Working  |  16,602  |  30,950,460  |  53.6 (52.8-54.5)  |  2,085  |  1,091,252  |  191.1 (182.9-199.3)  |
|  Unemployed  |  3,922  |  2,408,442  |  162.8 (157.7-167.9)  |  221  |  57,421  |  384.9 (334.1-435.6)  |
|  Disability pension  |  3,582  |  2,633,192  |  136.0 (131.6-140.5)  |  214  |  66,527  |  321.7 (278.6-364.8)  |
|  Early retirement  |  354  |  1,769,036  |  20.0 (17.9-22.1)  |  16  |  25,346  |  63.1 (32.2-94.1)  |
|  Retired  |  3,625  |  10,224,695  |  35.5 (34.3-36.6)  |  214  |  186,967  |  114.5 (99.1-129.8)  |
|  Student/other  |  1,665  |  1,618,402  |  102.9 (97.9-107.8)  |  135  |  44,624  |  302.5 (251.5-353.6)  |
|  Missing1  |  2,871  |  2,466,833  |  116.4 (112.1-120.6)  |  243  |  65,952  |  368.4 (322.1-414.8)  |
|  *Cohabitation status*  |   |   |   |   |   |
|  Not cohabiting  |  32,104  |  28,878,926  |  111.2 (110.0-112.4)  |  3,390  |  1,271,536  |  266.6 (257.6-275.6)  |
|  Cohabiting  |  31,042  |  54,334,646  |  57.1 (56.5-57.8)  |  4,290  |  2,304,705  |  186.1 (180.6-191.7)  |
|  Missing  |  222  |  570,415  |  38.9 (33.8-44.0)  |  21  |  6,825  |  307.7 (176.1-439.3)  |
|  *Charlson comorbidity index*  |   |   |   |   |
|  0  |  54,771  |  74,313,194  |  73.7 (73.1-74.3)  |  7,076  |  3,337,351  |  212.0 (207.1-217.0)  |
|  1  |  5,579  |  5,264,499  |  73.7 (73.1-74.3)  |  456  |  166,412  |  274.0 (248.9-299.2)  |
|  2  |  2,183  |  3,185,015  |  106.0 (103.2-108.8)  |  130  |  60,217  |  215.9 (178.8-253.0)  |
|  3  |  543  |  656,461  |  68.5 (65.7-71.4)  |  21  |  13,188  |  159.2 (91.1-227.3)  |
|  4+  |  292  |  364,818  |  82.7 (75.8-89.7)  |  18  |  5,896  |  305.3 (164.2-446.3)  |
|  *Non-CNS fractures*  |   |   |   |   |   |
|  No  |  53,472  |  74,005,111  |  72.3 (71.6-72.9)  |  6,612  |  3,157,850  |  209.4 (204.3-214.4)  |
|  1  |  6,059  |  5,861,317  |  72.3 (71.6-72.9)  |  705  |  289,610  |  243.4 (225.5-261.4)  |
|  2  |  2,332  |  2,535,840  |  103.4 (100.8-106.0)  |  240  |  88,610  |  270.9 (236.6-305.1)  |
|  3+  |  1,505  |  1,381,720  |  92.0 (88.2-95.7)  |  144  |  46,996  |  306.4 (256.4-356.5)  |
|  *Epilepsy*  |   |   |   |   |   |
|  No  |  61,574  |  82,901,282  |  74.3 (73.7-74.9)  |  7,388  |  3,504,430  |  210.8 (206.0-215.6)  |
|  Yes  |  1,794  |  882,706  |  74.3 (73.7-74.9)  |  313  |  78,635  |  398.0 (353.9-442.1)  |
|  *Psychiatric illness*  |   |   |  |   |   |
|  No  |  33,613  |  79,106,788  |  42.5 (42.0-42.9)  |  6,074  |  3,395,274  |  178.9 (174.4-183.4)  |
|  Yes  |  29,755  |  4,677,199  |  42.5 (42.0-42.9)  |  1,627  |  187,792  |  866.4 (824.3-908.5)  |
| Abbreviation: IR = incidence rate, PY = person-years, TBI = traumatic brain injury. |
| 1Missing before start of registration in 1992: n = 30,707 without TBI, n = 4,573 with TBI. |

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| **eTable 4: Numbers and Incidence Rates of Suicide Attempt Among Males With or Without a TBI diagnosis** |
|   | **No TBI** | **TBI** |
| Characteristics | n  | PY | IR per 100.000 PY (95% CI) | n  | PY | IR per 100.000 PY(95% CI) |
| Total |  43,316  |  79,614,432  | 54.4 (53.9-54.9) |  9,917  |  5,416,783  | 183.1 (179.5-186.7) |
| *Age-group (yrs)* |   |  |   |   |  |
|  10-19  | 5,705 | 12,010,086 | 47.5 (46.3-48.7) | 959 | 811,921 | 118.1 (110.6-125.6) |
|  20-29  | 10,607 | 12,314,718 | 86.1 (84.5-87.8) | 2,935 | 1,194,210 | 245.8 (236.9-254.7) |
|  30-39  | 9,169 | 13,105,339 | 70.0 (68.5-71.4) | 2,813 | 1,146,935 | 245.3 (236.2-254.3) |
|  40-49  | 7,203 | 12,980,830 | 55.5 (54.2-56.8) | 1,861 | 913,437 | 203.7 (194.5-213.0) |
|  50-59  | 4,538 | 11,414,339 | 39.8 (38.6-40.9) | 816 | 603,777 | 135.1 (125.9-144.4) |
|  60-69  | 2,815 | 9,359,042 | 30.1 (29.0-31.2) | 306 | 396,608 | 77.2 (68.5-85.8) |
|  70-79  | 2,081 | 5,923,702 | 35.1 (33.6-36.6) | 148 | 233,544 | 63.4 (53.2-73.6) |
|  80+  | 1,198 | 2,506,377 | 47.8 (45.1-50.5) | 79 | 116,350 | 67.9 (52.9-82.9) |
|  *Educational level*  |   |  |   |   |  |
|  Elementary school  | 17,766 | 20,443,698 | 86.9 (85.6-88.2) | 3,821 | 1,426,838 | 267.8 (259.3-276.3) |
|  Vocational training  | 3,061 | 28,392,882 | 46.0 (45.2-46.8) | 2,550 | 1,765,672 | 144.4 (138.8-150.0) |
|  High school  | 1,942 | 4,855,613 | 40.0 (38.2-41.8) | 228 | 236,458 | 96.4 (83.9-108.9) |
|  University degree  | 4,623 | 16,616,483 | 27.8 (27.0-28.6) | 754 | 876,552 | 86.0 (79.9-92.2) |
|  Ongoing/missing  | 5,924 | 9,305,755 | 63.7 (62.0-65.3) | 2,564 | 1,111,263 | 230.7 (221.8-239.7) |
|  *Socioeconomic status*  |   |  |   |   |  |
|  Working  | 10,284 | 33,771,060 | 30.5 (29.9-31.0) | 1,859 | 1,660,388 | 112.0 (106.9-117.1) |
|  Unemployed  | 2,770 | 1,800,050 | 153.9 (148.2-159.6) | 281 | 81,665 | 344.1 (303.9-384.3) |
|  Disability pension  | 2,628 | 1,885,869 | 139.4 (134.0-144.7) | 251 | 74,602 | 336.5 (294.8-378.1) |
|  Early retirement  | 266 | 1,397,038 | 19.0 (16.8-21.3) | 18 | 29,733 | 60.5 (32.6-88.5) |
|  Retired  | 2,121 | 7,329,676 | 28.9 (27.7-30.2) | 128 | 146,085 | 87.6 (72.4-102.8) |
|  Student/other  | 753 | 1,263,446 | 59.6 (55.3-63.9) | 130 | 51,838 | 250.8 (207.7-293.9) |
|  Missing1  | 2,437 | 1,933,436 | 126.0 (121.0-131.0) | 352 | 92,777 | 379.4 (339.8-419.0) |
|  *Cohabitation status*  |   |  |  |   |  |
|  Not cohabiting  | 24,251 | 24,829,732 | 97.7 (96.4-98.9) | 5,660 | 2,194,000 | 258.0 (251.3-264.7) |
|  Cohabiting  | 18,904 | 54,081,959 | 35.0 (34.5-35.5) | 4,228 | 3,211,305 | 131.7 (127.7-135.6) |
|  Missing  | 161 | 702,741 | 22.9 (19.4-26.4) | 29 | 11,477 | 252.7 (160.7-344.6) |
|  *Charlson comorbidity index*  |  |   |   |  |
|  0  | 36,220 | 70,470,418 | 51.4 (50.9-51.9) | 9,116 | 5,084,989 | 179.3 (175.6-183.0) |
|  1  | 4,692 | 5,806,056 | 80.8 (78.5-83.1) | 653 | 258,641 | 252.5 (233.1-271.8) |
|  2  | 1,519 | 2,271,658 | 66.9 (63.5-70.2) | 106 | 53,135 | 199.5 (161.5-237.5) |
|  3  | 502 | 651,838 | 77.0 (70.3-83.7) | 27 | 12,664 | 213.2 (132.8-293.6) |
|  4+  | 383 | 414,461 | 92.4 (83.2-101.7) | 15 | 7,354 | 204.0 (100.7-307.2) |
|  *Non-CNS fractures*  |   |  |   |   |  |
|  No  | 35,014 | 69,267,620 | 50.5 (50.0-51.1) | 8,187 | 4,639,519 | 176.5 (172.6-180.3) |
|  1  | 4,815 | 6,504,650 | 50.5 (50.0-51.1) | 1,086 | 533,345 | 203.6 (191.5-215.7) |
|  2  | 2,015 | 2,538,099 | 74.0 (71.9-76.1) | 381 | 161,542 | 235.9 (212.2-259.5) |
|  3+  | 1,472 | 1,304,062 | 79.4 (75.9-82.9) | 263 | 82,377 | 319.3 (280.7-357.9) |
|  *Epilepsy*  |   |  |   |   |  |
|  No  | 41,976 | 78,747,031 | 53.3 (52.8-53.8) | 9,540 | 5,304,631 | 179.8 (176.2-183.5) |
|  Yes  | 1,340 | 867,401 | 154.5 (146.2-162.8) | 377 | 112,151 | 336.2 (302.2-370.1) |
|  *Psychiatric illness*  |   |  |  |   |  |
|  No  | 24,658 | 76,086,229 | 32.4 (32.0-32.8) | 8,078 | 5,178,281 | 156.0 (152.6-159.4) |
|  Yes  | 18,658 | 3,528,202 | 528.8 (521.2-536.4) | 1,839 | 238,502 | 771.1 (735.8-806.3) |
| Abbreviation: IR = incidence rate, PY = person-years, TBI = traumatic brain injury. |
| 1Missing before start of registration in 1992: n = 22,057 without TBI, n = 6,898 with TBI. |

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| **eTable 5: Numbers and Incidence Rates of Violent Crime Among Females With or Without a TBI diagnosis** |
|   | **No TBI** | **TBI** |
| Characteristics | n  | PY | IR per 100.000 PY (95% CI) | n  | PY | IR per 100.000 PY (95% CI) |
| Total | 50,160 | 83,926,782 | 59.8 (59.2-60.3) | 6,498 | 3,611,474 | 180.0 (175.6-184.4) |
| *Age-group (yrs)* |   |   |   |   |   |   |
| 10-19 | 8,930 | 11,613,917 | 76.9 (75.3-78.5) | 1,056 | 588,004 | 179.6 (168.8-190.4) |
| 20-29 | 12,083 | 12,192,930 | 99.1 (97.3-100.9) | 1,814 | 748,241 | 242.4 (231.3-253.6) |
| 30-39 | 11,988 | 13,081,430 | 91.6 (90.0-93.3) | 1,645 | 664,587 | 247.5 (235.6-259.5) |
| 40-49 | 10,187 | 12,946,225 | 78.7 (77.2-80.2) | 1,214 | 511,510 | 237.3 (224.0-250.7) |
| 50-59 | 4,854 | 11,605,495 | 41.8 (40.6-43.0) | 555 | 368,333 | 150.7 (138.1-163.2) |
| 60-69 | 1,745 | 10,131,522 | 17.2 (16.4-18.0) | 175 | 289,684 | 60.4 (51.5-69.4) |
| 70-79 | 346 | 7,603,360 | 4.6 (4.1-5.0) | 39 | 223,573 | 17.4 (12.0-22.9) |
| 80+ | 27 | 4,751,903 | 0.6 (0.4-0.8) | ≤3 | 217,541 | 0.9 (-0.4-2.2) |
| *Educational level* |   |   |   |   |   |   |
| Elementary school | 22,991 | 25,405,944 | 90.5 (89.3-91.7) | 2,599 | 934,162 | 278.2 (267.5-288.9) |
| Vocational training | 13,649 | 23,283,733 | 58.6 (57.6-59.6) | 1,708 | 1,013,234 | 168.6 (160.6-176.6) |
| High school | 2,895 | 5,537,343 | 52.3 (50.4-54.2) | 252 | 207,232 | 121.6 (106.6-136.6) |
| University degree | 7,213 | 18,034,737 | 40.0 (39.1-40.9) | 756 | 726,535 | 104.1 (96.6-111.5) |
| Ongoing/missing | 3,412 | 11,665,025 | 29.2 (28.3-30.2) | 1,185 | 730,311 | 162.3 (153.0-171.5) |
| *Socioeconomic status* |   |   |   |   |   |   |
| Working | 16,656 | 30,933,769 | 53.8 (53.0-54.7) | 1,724 | 1,096,609 | 157.2 (149.8-164.6) |
| Unemployed | 5,204 | 2,395,244 | 217.3 (211.4-223.2) | 270 | 56,095 | 481.3 (423.9-538.7) |
| Disability pension | 2,863 | 2,696,650 | 106.2 (102.3-110.1) | 175 | 71,284 | 245.5 (209.1-281.9) |
| Early retirement | 380 | 1,768,092 | 21.5 (19.3-23.7) | 19 | 25,410 | 74.8 (41.2-108.4) |
| Retired | 1,522 | 10,277,412 | 14.8 (14.1-15.6) | 145 | 188,834 | 76.8 (64.3-89.3) |
| Student/other | 1,235 | 1,625,927 | 76.0 (71.7-80.2) | 123 | 45,883 | 268.1 (220.7-315.4) |
| Missing1 | 3,217 | 2,463,721 | 130.6 (126.1-135.1) | 355 | 64,003 | 554.7 (497.0-612.4) |
| *Cohabitation status* |   |   |   |   |   |   |
| Not cohabiting | 27,620 | 28,954,023 | 95.4 (94.3-96.5) | 3,042 | 1,278,842 | 237.9 (229.4-246.3) |
| Cohabiting | 22,274 | 54,402,214 | 40.9 (40.4-41.5) | 3,438 | 2,325,622 | 147.8 (142.9-152.8) |
| Missing | 266 | 570,545 | 46.6 (41.0-52.2) | 20 | 7,010 | 285.3 (160.3-410.3) |
| *Charlson Comorbidity index* |   |   |   |   |   |
| 0 | 46,091 | 74,392,377 | 46.6 (41.0-52.2) | 6,171 | 3,359,870 | 183.7 (179.1-188.3) |
| 1 | 46,091 | 74,392,377 | 62.0 (61.4-62.5) | 254 | 170,758 | 148.7 (130.5-167.0) |
| 2 | 2,822 | 5,302,885 | 53.2 (51.3-55.2) | 60 | 61,269 | 97.9 (73.1-122.7) |
| 3 | 933 | 3,200,249 | 29.2 (27.3-31.0) | 6 | 13,571 | 44.2 (8.8-79.6) |
| 4+ | 168 | 663,565 | 25.3 (21.5-29.1) | 9 | 6,006 | 149.9 (51.9-247.8) |
| *Non-CNS fractures* |   |   |   |   |   |   |
| No | 146 | 367,705 | 39.7 (33.3-46.1) | 5,575 | 3,182,530 | 175.2 (170.6-179.8) |
| 1 | 42,254 | 74,114,406 | 57.0 (56.5-57.6) | 608 | 291,383 | 208.7 (192.1-225.2) |
| 2 | 4,764 | 5,878,970 | 81.0 (78.7-83.3) | 197 | 89,576 | 219.9 (189.2-250.6) |
| 3+ | 1,983 | 2,543,289 | 78.0 (74.5-81.4) | 120 | 47,985 | 250.1 (205.3-294.8) |
| *Epilepsy* |   |   |   |   |   |   |
| No  | 1,159 | 1,390,117 | 83.4 (78.6-88.2) | 6,309 | 3,529,009 | 178.8 (174.4-183.2) |
| Yes | 49,188 | 83,025,485 | 59.2 (58.7-59.8) | 191 | 82,465 | 231.6 (198.8-264.5) |
| *Psychiatric illness* |   |   |   |   |   |   |
| No | 972 | 901,297 | 107.8 (101.1-114.6) | 5,372 | 3,393,869 | 158.3 (154.1-162.5) |
| Yes | 38,544 | 78,922,601 | 48.8 (48.4-49.3) | 1,128 | 217,605 | 518.4 (488.1-548.6) |
| Abbreviation: IR = incidence rate, PY = person-years, TBI = traumatic brain injury. |
| 1Missing before start of registration in 1992: n = 19,083 without TBI, n = 3,689 with TBI. |

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| **eTable 6: Numbers and Incidence Rates of Violent Crime Among Males With or Without a TBI diagnosis** |
|   | **No TBI** | **TBI** |
| Characteristics | n  | PY | IR per 100.000 PY (95% CI) | n  | PY  | IR per 100.000 PY (95% CI) |
| Total | 391,737 | 73,764,789 | 531.1 (529.4-532.7) | 45,951 | 4,189,081 | 1,096.9 (1,086.9-1,107.0) |
| *Age-group (yrs)* |   |   |   |   |   |
| 10-19 | 98,280 | 11,848,174 | 829.5 (824.3-834.7) | 12,534 | 783,211 | 1,600.3 (1,572.3-1,628.4) |
| 20-29 | 117,249 | 11,143,134 | 1,052.2 (1,046.2-1,058.2) | 16,792 | 923,917 | 1,817.5 (1,790.0-1,845.0) |
| 30-39 | 71,807 | 11,721,944 | 612.6 (608.1-617.1) | 7,978 | 807,973 | 987.4 (965.7-1,009.1) |
| 40-49 | 55,576 | 11,610,594 | 478.7 (474.7-482.6) | 5,020 | 615,372 | 815.8 (793.2-838.3) |
| 50-59 | 32,164 | 10,402,224 | 309.2 (305.8-312.6) | 2,414 | 422,456 | 571.4 (548.6-594.2) |
| 60-69 | 13,215 | 8,804,460 | 150.1 (147.5-152.7) | 970 | 315,074 | 307.9 (288.5-327.2) |
| 70-79 | 3,173 | 5,749,767 | 55.2 (53.3-57.1) | 225 | 208,414 | 108.0 (93.9-122.1) |
| 80+ | 273 | 2,484,494 | 11.0 (9.7-12.3) | 18 | 112,665 | 16.0 (8.6-23.4) |
| *Educational level* |   |   |   |   |   |
| Elementary school | 147,359 | 18,019,430 | 817.8 (813.6-822.0) | 13,717 | 956,702 | 1,433.8 (1,409.8-1,457.8) |
| Vocational training | 139,888 | 26,017,551 | 537.7 (534.9-540.5) | 14,644 | 1,374,910 | 1,065.1 (1,047.8-1,082.3) |
| High school | 19,473 | 4,608,594 | 422.5 (416.6-428.5) | 1,498 | 204,475 | 732.6 (695.5-769.7) |
| University degree | 45,302 | 16,030,874 | 282.6 (280.0-285.2) | 5,323 | 782,012 | 680.7 (662.4-699.0) |
| Ongoing/missing | 39,715 | 9,088,341 | 437.0 (432.7-441.3) | 10,769 | 870,982 | 1,236.4 (1,213.1-1,259.8) |
| *Socioeconomic status* |   |   |   |   |   |
| Working | 137,498 | 30,842,876 | 445.8 (443.4-448.2) | 13,583 | 1,351,292 | 1,005.2 (988.3-1,022.1) |
| Unemployed | 14,986 | 1,299,545 | 1,153.2 (1,134.7-1,171.6) | 620 | 38,263 | 1,620.4 (1,492.8-1,747.9) |
| Disability pension | 7,934 | 1,465,512 | 541.4 (529.5-553.3) | 381 | 44,721 | 852.0 (766.4-937.5) |
| Early retirement | 2,441 | 1,280,820 | 190.6 (183.0-198.1) | 86 | 24,990 | 344.1 (271.4-416.9) |
| Retired | 10,284 | 6,986,219 | 147.2 (144.4-150.0) | 982 | 128,677 | 763.2 (715.4-810.9) |
| Student/other | 7,874 | 1,184,703 | 664.6 (650.0-679.3) | 671 | 39,060 | 1,717.9 (1,587.9-1,847.8) |
| Missing1 | 14,828 | 1,630,566 | 909.4 (894.7-924.0) | 1,081 | 47,011 | 2,299.5 (2,162.4-2,436.5) |
| *Cohabitation status* |   |   |   |   |   |
| Not cohabiting | 211,143 | 21,964,597 | 961.3 (957.2-965.4) | 21,194 | 1,514,202 | 1,399.7 (1,380.8-1,418.5) |
| Cohabiting | 177,951 | 51,098,604 | 348.3 (346.6-349.9) | 24,616 | 2,665,611 | 923.5 (911.9-935.0) |
| Missing | 2,643 | 701,588 | 376.7 (362.4-391.1) | 141 | 9,268 | 1,521.4 (1,270.3-1,772.5) |
| *Charlson comorbidity index* |   |   |   |   |
| 0 | 367,026 | 65,390,797 | 561.3 (559.5-563.1) | 43,812 | 3,922,355 | 1,117.0 (1,106.5-1,127.4) |
| 1 | 19,444 | 5,302,614 | 366.7 (361.5-371.8) | 1,873 | 206,684 | 906.2 (865.2-947.3) |
| 2 | 3,817 | 2,102,217 | 181.6 (175.8-187.3) | 206 | 43,424 | 474.4 (409.6-539.2) |
| 3 | 876 | 596,309 | 146.9 (137.2-156.6) | 36 | 10,692 | 336.7 (226.7-446.7) |
| 4+ | 574 | 372,852 | 153.9 (141.4-166.5) | 24 | 5,926 | 405.0 (242.9-567.0) |
| *Non-CNS fractures* |   |   |   |   |   |
| No | 326,104 | 64,896,382 | 502.5 (500.8-504.2) | 38,420 | 3,628,555 | 1,058.8 (1,048.2-1,069.4) |
| 1 | 40,428 | 5,691,352 | 710.3 (703.4-717.3) | 5,156 | 397,318 | 1,297.7 (1,262.3-1,333.1) |
| 2 | 15,920 | 2,152,555 | 739.6 (728.1-751.1) | 1,582 | 111,647 | 1,417.0 (1,347.1-1,486.8) |
| 3+ | 9,285 | 1,024,500 | 906.3 (887.9-924.7) | 793 | 51,561 | 1,538.0 (1,430.9-1,645.0) |
| *Epilepsy* |   |   |   |   |   |
| No  | 387,035 | 72,984,731 | 530.3 (528.6-532.0) | 44,919 | 4,098,607 | 1,096.0 (1,085.8-1,106.1) |
| Yes | 4,702 | 780,059 | 602.8 (585.5-620.0) | 1,032 | 90,474 | 1,140.7 (1,071.1-1,210.3) |
| *Psychiatric illness* |   |   |   |   |   |
| No | 356,180 | 70,838,118 | 502.8 (501.2-504.5) | 43,125 | 4,046,546 | 1,065.7 (1,055.7-1,075.8) |
| Yes | 35,557 | 2,926,671 | 1,214.9 (1,202.3-1,227.6) | 2,826 | 142,535 | 1,982.7 (1,909.6-2,055.8) |
| Abbreviation: IR = incidence rate, PY = person-years, TBI = traumatic brain injury. |
| 1Missing before start of registration in 1992: n = 195,892 without TBI, n = 28,547 with TBI. |

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| **eTable 7: Suicide Attempt Incidence Rates and Incidence Rate Ratios by Measure of Traumatic Brain Injury** |
|   | n | IR per 100,000 PY (95%CI) | Basic Adjusted IRR (95% CI)1 | Fully Adjusted IRR (95% CI)2 |
| **Females** |
| **Number of medical contacts for TBI** |  |  |  |
|  No TBI  | 63,368 | 75.6 (75.0-76.2) | 1 [Reference] | 1 [Reference] |
|  1  | 6,277 | 196.7 (191.8-201.5) | 2.65 (2.58-2.72) | 2.57 (2.50-2.64) |
|  2  | 1,020 | 330.2 (309.9-350.4) | 4.74 (4.46-5.05) | 4.18 (3.93-4.45) |
|  3  | 255 | 444.8 (390.2-499.4) | 6.62 (5.85-7.49) | 4.95 (4.38-5.60) |
|  4  | 89 | 600.7 (475.9-725.5) | 9.11 (7.40-11.22) | 6.97 (5.66-8.58) |
|  ≥5  | 60 | 576.0 (430.2-721.7) | 8.58 (6.66-11.05) | 6.48 (5.02-8.34) |
|  **Time since last TBI**  |  |  |  |  |
|  No TBI  | 63,368 | 75.6 (75.0-76.2) | 1 [Reference] | 1 [Reference] |
|  0-6 months  | 661 | 619.8 (572.5-667.0) | 7.76 (7.19-8.38) | 4.84 (4.48-5.23) |
|  >6-12 months  | 518 | 510.6 (466.7-554.6) | 6.33 (5.81-6.91) | 4.11 (3.77-4.48) |
|  >1-2 year  | 804 | 408.7 (380.5-437.0) | 5.04 (4.70-5.40) | 3.45 (3.21-3.70) |
|  >2-3 year  | 699 | 365.0 (337.9-392.0) | 4.46 (4.14-4.81) | 3.25 (3.01-3.50) |
|  >3-4 year  | 616 | 330.5 (304.4-356.6) | 4.04 (3.73-4.37) | 3.10 (2.86-3.35) |
|  >4-5 year  | 483 | 268.1 (244.2-292.0) | 3.29 (3.01-3.60) | 2.66 (2.43-2.91) |
|  >5-6year  | 426 | 244.4 (221.2-267.6) | 3.02 (2.74-3.32) | 2.56 (2.33-2.82) |
|  >6-7year  | 392 | 232.0 (209.0-254.9) | 2.88 (2.61-3.18) | 2.56 (2.32-2.83) |
|  >7years  | 3,102 | 136.2 (131.4-141.0) | 1.94 (1.87-2.01) | 2.19 (2.10-2.27) |
|  **Admission to hospital for TBI**  |  |  |  |
|  No TBI  | 63,368 | 75.6 (75.0-76.2) | 1 [Reference] | 1 [Reference] |
|  No (ER or outpatient) | 1,407 | 181.3 (171.8-190.7) | 2.61 (2.47-2.76) | 2.73 (2.59-2.88) |
|  Yes (inpatient) | 6,294 | 224.2 (218.7-229.8) | 2.99 (2.92-3.07) | 2.79 (2.71-2.87) |
|  **Injury Type**  |  |  |  |  |
|  No TBI or fracture  | 53,472 | 72.3 (71.6-72.9) | 1 [Reference] | 1 [Reference] |
|  Non-CNS fracture  | 9,896 | 101.2 (99.2-103.2) | 1.89 (1.85-1.93) | 1.44 (1.41-1.48) |
|  TBI  | 7,701 | 214.9 (210.1-219.7) | 3.24 (3.16-3.32) | 2.94 (2.87-3.02) |
| **Males** |
| **Number of medical contacts for TBI** |  |  |  |
|  No TBI  | 43,316 | 54.4 (53.9-54.9) | 1 [Reference] | 1 [Reference] |
|  1  | 7,099 | 153.7 (150.1-157.3) | 2.95 (2.87-3.03) | 2.61 (2.54-2.68) |
|  2  | 1,791 | 303.0 (289.0-317.0) | 6.03 (5.75-6.33) | 4.57 (4.35-4.80) |
|  3  | 588 | 447.3 (411.1-483.5) | 9.16 (8.45-9.94) | 6.18 (5.69-6.72) |
|  4  | 241 | 575.8 (503.1-648.5) | 11.77 (10.37-13.36) | 7.27 (6.40-8.26) |
|  ≥5  | 198 | 592.3 (509.8-674.8) | 11.93 (10.38-13.72) | 7.21 (6.27-8.30) |
|  **Time since last TBI**  |  |  |  |  |
|  No TBI  | 43,316 | 54.4 (53.9-54.9) | 1 [Reference] | 1 [Reference] |
|  0-6 months  | 919 | 575.2 (538.0-612.4) | 10.27 (9.62-10.97) | 5.70 (5.34-6.09) |
|  >6-12 months  | 660 | 437.4 (404.0-470.7) | 7.74 (7.16-8.36) | 4.50 (4.16-4.86) |
|  >1-2 year  | 955 | 325.3 (304.6-345.9) | 5.69 (5.34-6.07) | 3.51 (3.29-3.75) |
|  >2-3 year  | 849 | 294.3 (274.5-314.1) | 5.09 (4.75-5.45) | 3.37 (3.15-3.61) |
|  >3-4 year  | 739 | 262.0 (243.1-280.9) | 4.53 (4.21-4.87) | 3.18 (2.95-3.42) |
|  >4-5 year  | 629 | 230.2 (212.2-248.2) | 4.01 (3.71-4.34) | 2.95 (2.73-3.19) |
|  >5-6year  | 561 | 211.8 (194.3-229.4) | 3.74 (3.44-4.06) | 2.86 (2.63-3.11) |
|  >6-7year  | 516 | 200.8 (183.5-218.1) | 3.59 (3.29-3.92) | 2.86 (2.62-3.12) |
|  >7years  | 4,089 | 118.6 (115.0-122.3) | 2.37 (2.29-2.45) | 2.30 (2.22-2.39) |
| **Admission to hospital for TBI** |  |  |  |
|  No TBI  | 43,316 | 54.4 (53.9-54.9) | 1 [Reference] | 1 [Reference] |
|  No  | 1,091 | 107.1 (100.8-113.5) | 2.47 (2.33-2.63) | 2.58 (2.43-2.74) |
|  Yes  | 8,826 | 200.7 (196.5-204.8) | 3.71 (3.62-3.79) | 3.08 (3.00-3.16) |
|  **Injury Type**  |  |  |  |  |
|  No TBI or fracture  | 35,014 | 50.5 (50.0-51.1) | 1 [Reference] | 1 [Reference] |
|  Non-CNS fracture  | 8,302 | 80.2 (78.5-82.0) | 2.06 (2.01-2.11) | 1.55 (1.51-1.59) |
|  TBI  | 9,917 | 183.1 (179.5-186.7) | 4.06 (3.97-4.16) | 3.26 (3.18-3.35) |
| 1Basic adjusted: Adjusted for calendar period, and age group. |
| 2Fully adjusted: Adjusted for calendar period, age group, educational level, socioeconomic status, cohabitation status, non-CNS fractures, epilepsy, Charlson comorbidity index, and psychiatric illness. |
| Abbreviation: CI, confidence interval; IR, incidence rate; IRR, incidence rate ratio; PY, person-years; TBI, traumatic brain injury. |

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| **eTable 8:** **Violent Crime Incidence Rates and Incidence Rate Ratios by Measure of Traumatic Brain Injury** |
|   | n  | IR per 100,000 PY (95%CI) | Basic Adjusted IRR (95% CI)1 | Fully Adjusted IRR (95% CI)2 |
| **Females** |
| **Number of medical contacts for TBI** |  |  |  |
| No TBI | 50,160 | 59.8 (59.2-60.3) |  | 1 [Reference] | 1 [Reference] |
| 1 | 5,319 | 165.7 (161.3-170.2) |  | 2.46 (2.39-2.53) | 2.26 (2.20-2.33) |
| 2 | 867 | 275.9 (257.5-294.2) |  | 4.12 (3.86-4.41) | 3.50 (3.27-3.75) |
| 3 | 215 | 360.9 (312.7-409.1) |  | 5.51 (4.82-6.30) | 4.24 (3.71-4.86) |
| 4 | 56 | 348.1 (256.9-439.3) |  | 5.35 (4.12-6.96) | 3.97 (3.05-5.16) |
| ≥5 | 43 | 369.6 (259.2-480.1) |  | 5.55 (4.12-7.48) | 3.98 (2.95-5.37) |
| **Time since last TBI** |  |  |  |  |  |
| No TBI | 50,160 | 59.8 (59.2-60.3) |  | 1 [Reference] | 1 [Reference] |
| 0-6 months  | 383 | 355.6 (320.0-391.2) |  | 5.99 (5.42-6.62) | 4.21 (3.80-4.65) |
| >6-12 months | 340 | 331.8 (296.5-367.1) |  | 5.49 (4.93-6.10) | 3.94 (3.54-4.38) |
| >1-2 year | 577 | 290.4 (266.7-314.1) |  | 4.73 (4.35-5.13) | 3.49 (3.21-3.79) |
| >2-3 year | 497 | 257.0 (234.4-279.6) |  | 4.10 (3.75-4.48) | 3.13 (2.87-3.42) |
| >3-4 year | 429 | 227.9 (206.3-249.4) |  | 3.57 (3.25-3.93) | 2.82 (2.56-3.10) |
| >4-5 year | 407 | 223.6 (201.9-245.3) |  | 3.44 (3.12-3.79) | 2.80 (2.54-3.09) |
| >5-6year | 347 | 197.1 (176.4-217.9) |  | 2.98 (2.68-3.31) | 2.50 (2.25-2.78) |
| >6-7year | 338 | 198.1 (177.0-219.2) |  | 2.95 (2.65-3.29) | 2.55 (2.29-2.84) |
| >7years | 3,182 | 138.8 (134.0-143.6) |  | 1.98 (1.91-2.05) | 1.88 (1.81-1.96) |
| **Admission to hospital for TBI** |  |  |  |  |
| No TBI | 50,160 | 59.8 (59.2-60.3) |  | 1 [Reference] | 1 [Reference] |
| No (ER or outpatient) | 1,364 | 174.8 (165.6-184.1) |  | 2.44 (2.31-2.58) | 2.38 (2.25-2.51) |
| Yes (inpatient) | 5,136 | 181.4 (176.4-186.4) |  | 2.74 (2.66-2.82) | 2.44 (2.37-2.52) |
| **Injury Type** |  |  |  |  |  |
| No TBI or fracture | 42,254 | 57.0 (56.5-57.6) |  | 1 [Reference] | 1 [Reference] |
| Non-CNS fracture | 7,906 | 80.6 (78.8-82.3) |  | 1.92 (1.88-1.97) | 1.65 (1.60-1.69) |
| TBI | 6,500 | 180.0 (175.6-184.4) |  | 2.97 (2.90-3.05) | 2.00 (1.89-2.12) |
| **Males** |
| **Number of medical contacts for TBI** |  |  |  |
| No TBI | 391,737 | 531.1 (529.4-532.7) |  | 1 [Reference] | 1 [Reference] |
| 1 | 38,478 | 1,050.5 (1,040.1-1,061.0) |  | 1.85 (1.83-1.86) | 1.72 (1.70-1.74) |
| 2 | 5,637 | 1,404.9 (1,368.2-1,441.5) |  | 2.64 (2.57-2.71) | 2.33 (2.27-2.39) |
| 3 | 1,204 | 1,506.5 (1,421.4-1,591.6) |  | 3.07 (2.90-3.25) | 2.49 (2.35-2.63) |
| 4 | 379 | 1,525.2 (1,371.7-1,678.8) |  | 3.14 (2.84-3.47) | 2.37 (2.14-2.62) |
| ≥5 | 253 | 1,240.3 (1,087.5-1,393.1) |  | 2.52 (2.23-2.85) | 1.82 (1.61-2.06) |
| **Time since last TBI** |  |  |  |  |  |
| No TBI | 391,737 | 531.1 (529.4-532.7) |  | 1 [Reference] | 1 [Reference] |
| 0-6 months  | 2,726 | 2,157.4 (2,076.4-2,238.4) |  | 3.50 (3.37-3.64) | 2.83 (2.72-2.94) |
| >6-12 months | 2,371 | 1,984.8 (1,904.9-2,064.7) |  | 3.16 (3.03-3.29) | 2.59 (2.49-2.69) |
| >1-2 year | 4,481 | 1,922.7 (1,866.4-1,979.0) |  | 3.01 (2.92-3.10) | 2.51 (2.44-2.58) |
| >2-3 year | 4,030 | 1,757.2 (1,702.9-1,811.4) |  | 2.70 (2.62-2.79) | 2.29 (2.22-2.36) |
| >3-4 year | 3,537 | 1,580.0 (1,527.9-1,632.0) |  | 2.42 (2.34-2.50) | 2.09 (2.02-2.16) |
| >4-5 year | 3,035 | 1,405.1 (1,355.1-1,455.1) |  | 2.16 (2.09-2.24) | 1.91 (1.84-1.97) |
| >5-6year | 2,615 | 1,251.8 (1,203.8-1,299.8) |  | 1.94 (1.87-2.02) | 1.74 (1.68-1.81) |
| >6-7year | 2,436 | 1,203.1 (1,155.4-1,250.9) |  | 1.89 (1.81-1.97) | 1.72 (1.65-1.79) |
| >7years | 20,720 | 787.9 (777.2-798.7) |  | 1.51 (1.49-1.54) | 1.43 (1.41-1.45) |
| **Admission to hospital for TBI** |  |  |  |  |
| No TBI | 391,737 | 531.1 (529.4-532.7) |  | 1 [Reference] | 1 [Reference] |
| No | 8,023 | 963.0 (941.9-984.0) |  | 1.88 (1.84-1.92) | 1.93 (1.88-1.97) |
| Yes | 37,928 | 1,130.2 (1,118.8-1,141.6) |  | 1.96 (1.94-1.98) | 1.77 (1.75-1.79) |
| **Injury Type** |  |  |  |  |  |
| No TBI or fracture |  326,104  | 502.5 (500.8-504.2) |  | 1 [Reference]  | 1 [Reference]  |
| Non-CNS fracture |  65,633  | 734.4 (734.4-745.7) |  | 1.69 (1.68-1.71) | 1.57 (1.56-1.59) |
| TBI |  45,951  | 1,096.9 (1,086.9-1,107.0) |  | 2.14 (2.12-2.17) | 1.93 (1.91-1.96) |
| 1Basic adjusted: Adjusted for calendar period, and age group. |
| 2Fully adjusted: Adjusted for calendar period, age group, educational level, socioeconomic status, cohabitation status, non-CNS fractures, epilepsy, Charlson comorbidity index, and psychiatric illness. |
| Abbreviation: CI, confidence interval; IR, incidence rate; IRR, incidence rate ratio; PY, person-years; TBI, traumatic brain injury |

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| **eTable 9:** **Suicide Attempt and Violent Crime in Individuals Born After 1976 (a birth cohort with lifetime coverage of register data)** |
|   | *Males* |  | *Females* |
|   | No TBI | TBI |  | No TBI | TBI |
| **Attempted suicide** |   |   |   |   |   |
| n | 7,550 | 1,879 |  | 16,284 | 2,380 |
| IR per 100,000 PY (95% CI) | 57.0 (55.7-58.3) | 138.3 (132.0-144.5) |  | 125.0 (123.0-126.9) | 246.7 (236.8-256.6) |
| IRR (95%CI) basic adjustment1 | 1 [Reference]  | 2.33 (2.22-2.45) |  | 1 [Reference]  | 2.08 (2.00-2.18) |
| IRR (95%CI) after adjustment2 | 1 [Reference]  | 3.20 (3.04-3.38) |  | 1 [Reference]  | 3.13 (2.99-3.27) |
| IRR (95%CI) after adjustment3 | 1 [Reference]  | 3.27 (3.10-3.45) |  | 1 [Reference]  | 3.22 (3.08-3.37) |
| **Violent crime** |   |   |   |   |   |
| n | 96,081 | 15,699 |  | 12,194 | 1,924 |
| IR per 100,000 PY (95% CI) | 770.3 (765.4-775.2) | 1,366.9 (1,345.5-1,388.3) |  | 93.3 (91.6-94.9) | 197.3 (188.5-206.2) |
| IRR (95%CI) basic adjustment1 | 1 [Reference]  | 2.01 (1.98-2.03) |  | 1 [Reference]  | 2.07 (1.98-2.18) |
| IRR (95%CI) after adjustment2 | 1 [Reference]  | 2.20 (2.17-2.23) |  | 1 [Reference]  | 2.43 (2.31-2.55) |
| IRR (95%CI) after adjustment4 | 1 [Reference]  | 3.27 (3.10-3.45) |   | 1 [Reference]  | 2.55 (2.46-2.65) |
| Abbreviation: CI, confidence interval; IR, incidence rate; IRR, incidence rate ratio; PY, person-years; TBI, traumatic brain injury. |
| 1Adjusted for age and calendar period. |
| 2Adjusted for age, calendar period, educational level, cohabitation status, socioeconomic status, Charlson comorbidity index, fractures (non-CNS), epilepsy, and psychiatric illness. |
| 3Adjusted for age, calendar period, educational level, cohabitation status, socioeconomic status, Charlson comorbidity index, fractures (non-CNS), epilepsy, psychiatric illness, parent socioeconomic status, parent educational level, parent history of psychiatric illness, and parent history of suicide. |
| 4Adjusted for age, calendar period, educational level, cohabitation status, socioeconomic status, Charlson comorbidity index, fractures (non-CNS), epilepsy, psychiatric illness, parent socioeconomic status, parent educational level, parent history of psychiatric illness, and parent history of crime. |