Table 1. Distribution of study variables by immigration (n = 218,187)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   |   | **Immigrants (N=99,037)**  | **Non-immigrants (N=119,150)**  | **p-exact sig (2-sided)**  | **Percentage missing**  |
| % Women  |   | 52.3%  | 46.9%  | <0.001  | 0.00%  |
| Average age at beginning of follow-up period (s.d)  |   | 47.40 (4.34)  | 47.30 (4.20)  | <0.001  | 0.00%  |
| % Married men  |   | 83.8%  | 77.0%  | <0.001  | 0.04%  |
| % Married women  |   | 69.1%  | 75.1%  | <0.001  | 0.02%  |
| Education level  | High | 55.3%  | 41.4%  | <0.001  | 15.1%  |
|  | Intermediate | 29.2%  | 48.8%  |   |   |
|  | Low | 15.5%  | 9.7%  |   |  |
| Socioeconomic status by residential area  | High | 10.2%  | 42.9%  | <0.001  | 0.60%  |
|  | Middle | 37.9%  | 38.8%  |   |   |
|  | Low | 51.9%  | 18.3%  |   |  |
| Income  | High | 21.0%  | 41.9%  | <0.001  | 0.00%  |
|  | Middle | 57.7%  | 25.7%  |   |   |
|  | Low | 21.4%  | 32.4%  |   |  |

Table 2. Distribution of mortality rates by study variables. NAHR (Non Adjusted Hazard Ratio) and AHR (Adjusted Hazard Ratio).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |   | % Mortality  | Non Adjusted Hazard Ratio (NAHR)  | Adjusted Hazard Ratio (AHR)  |
|   |   |   | NAHR (99%CI)  | p  | AHR (99%CI)  | P  |
| Total  |   | 9.4%  |   |   |   |   |
| Immigration  | Non-immigrants  | 8.3%  | 1.00  |   | \*\*1.00  |   |
|   | Immigrants  | 10.7%  | 1.321 (1.275-1.370)  | <0.001  | \*\*1.337 (1.290-1.386)  | <0.001  |
| Gender  | Female  | 7.6%  | 1.00  |   | \*1.00  |   |
|   | Male  | 11.2%  | 1.531 (1.476-1.589)  | <0.001  | \*1.563 (1.506-1.621)  | <0.001  |
| Marital status  | Married  | 8.9%  | 1.00  |   | \*\*1.00  |   |
|  | Unmarried  | 11.2%  | 1.309 (1.258-1.362)  | <0.001  | \*\*1.337 (1.285-1.392)  | <0.001  |
| Education level  | High  | 7.1%  | 1.00  |   | \*\*1.00  |   |
|  | Intermediate  | 10.0%  | 1.392 (1.332-1.455)  | <0.001  | \*\*1.362 (1.303-1.424)  | <0.001  |
|  | Low  | 17.6%  | 2.559 (2.431-2.694)  | <0.001  | \*\*2.277 (2.162-2.397)  | <0.001  |
| Socioeconomic status by residential area  | High  | 7.7%  | 1.00  |   | \*\*1.00  |   |
|  | Middle  | 9.1%  | 1.180 (1.125-1.238)  | <0.001  | \*\*1.159 (1.105-1.216)  | <0.001  |
|  | Low  | 11.3%  | 1.487 (1.419-1.559)  | <0.001  | \*\*1.453 (1.386-1.524)  | <0.001  |
| Income  | High  | 5.5%  | 1.00  |   | \*\*1.00  |   |
|  | Middle  | 10.1%  | 1.912 (1.820-2.010)  | <0.001  | \*\*1.975 (1.878-2.077)  | <0.001  |
|  | Low  | 13.3%  | 2.883 (2.741-3.033)  | <0.001  | \*\*2.758 (2.618-2.904)  | <0.001  |

\* = Age adjusted Hazard Ratio

\*\* = Age and Gender adjusted Hazard Ratio

Table 3. Results of Cox models for predicting mortality by social variables and their interactions within the entire study population (N=218,187)

|  |  |  |
| --- | --- | --- |
|  **Model 1**  | **Model 2**  | **Model 3**  |
|  **HR (99%CI) p**  | **HR (99%CI) p**  | **HR (99%CI) P**  |
| Immigration  | Non-immigrants  | 1.00 |  | 1.00 |  | 1.00 |  |
|  | Immigrants  | 1.297 (1.248-1.348)  | <0.001 | 0.529 (0.469-0.597)  | <0.001 | 0.660 (0.535-0.815)  | <0.001 |
| Gender  |  Female  | 1.00  |   | 1.00  |   | 1.00  |   |
|  | Male  | 1.811 (1.745-1.880)  | <0.001  | 1.575 (1.430-1.735)  | <0.001  | 1.660 (1.492-1.847)  | <0.001  |
| Age  |  | 1.087 (1.082-1.091)  | <0.001  | 1.081 (1.076-1.085)  | <0.001  | 1.08 (1.077-1.086)  | <0.001  |
| Income level  | High | 1.00  |   | 1.00  |   | 1.00  |   |
|  | Middle | 1.780 (1.689-1.876)  | <0.001  | 1.573 (1.420-1.742)  | <0.001  | 1.570 (1.400-1.761)  | <0.001  |
|  | Low | 2.651 (2.513-2.796)  | <0.001  | 1.863 (1.683-2.061)  | <0.001  | 2.039 (1.824-2.279)  | <0.001  |
| Marital status  | Married  | 1.00  |   | 1.00  |   | 1.00  |   |
|  | Unmarried  | 1.112 (1.067-1.159)  | <0.001  | 1.165 (1.117-1.215)  | <0.001  | 1.170 (1.122-1.220)  | <0.001  |
| Immigration X Gender  |  |   |   | 1.362 (1.258-1.475)  | <0.001  | 1.025 (0.806-1.304)  | 0.792  |
| Gender X Income  | High income level  |  |   | 1.00  |   | 1.00  |   |
|  | Middle income level |  |   | 1.241 (1.104-1.396)  | <0.001  | 1.271 (1.103-1.465)  | <0.001  |
|  | Low income level |  |   | 0.870 (0.775-0.977)  | 0.002  | 0.751 (0.655-0.860)  | <0.001  |
| Immigration X Income  | High income level  |  |   | 1.00  |   | 1.00  |   |
|  | Middle income level |  |   | 1.508 (1.338-1.699)  | <0.001  | 1.297 (1.031-1.631)  | 0.004  |
|  | Low income level |  |   | 3.491 (3.094-3.940)  | <0.001  | 2.548 (2.032-3.196)  | <0.001  |
|  | High income level  |  |   |   |   | 1.00  |   |
|  | Middle income level |  |   |   |   | 1.177 (0.900-1.539)  | 0.118  |

Gender X Low income level

Immigration X  1.598 (1.222-2.089) <0.001

Income

Table 4. Analysis of mortality rates among immigrants compared to non-immigrants, adjusted for age and marital status, among women and men separately, focusing on the total study population and on each income level separately.

Non-immigrants  , Immigrants

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | Men  |  |  |  | Women   |  |
|   | N  |  | Kaplan Meier  survivor curve  | AHR  (99% CI)  | N  |  | Kaplan Meier survivor curve  | AHR  (99% CI)  |
| Total population  | 110,520  | Survival   |  Years  | 1.474 (1.407-1.545) p<0.001   | 107,667  | Survival   |  Years  | 1.167 (1.102-1.236) p<0.001  |
| Low income level  | 27,563  | Survival  |  Years  | 2.941 (2.704-3.199) p<0.001  | 32,220  | Survival   |  Years  | 1.756 (1.614-1.909) p<0.001  |
| Middle income level  | 37,094  | Survival  |  | 1.039 (0.963-1.121) p=0.200  | 50,959  | Survival  |   | 0.846 (0.772-0.927) p<0.001  |
|  |  |    |  Years  |  |  |  Years  |  |
| High income level  | 45,863  | Survival    |  Years  | 0.714 (0.635-0.804) p<0.001  | 24,852  | Survival   |  Years  | 0.738 (0.596-0.913) p<0.001  |