**Changes in smoking during retirement transition: A longitudinal cohort study**

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Supplemental Figure S1. Number of the Finnish Public Sector Study participants at each possible survey wave and illustration of the survey wave pairs included in the pseudo trial.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Wave** | **w-3** | **w-2** | **w-1** | **RETIREMENT** | **w+1** | **w+2** | **w+3** |
| N in smoking status analysis | 374 | 838 | 1,432 | 1,432 | 786 | 294 |
| N in smoking intensity analysis | 135 | 316 | 489 | 489 | 247 | 73 |
| Data collection years |   |   | 2000-2002 | 2005 | 2009 | 2013 |
|   | 2000-2002 | 2004 | 2009 | 2013 |   |
| 2000-2002 | 2004 | 2008 | 2013 |   |   |



Supplemental Figure S2. Flow chart of the selection of the study sample



Supplemental table S1. Model fit statistics of the latent class analysis (LCA) models with different one to five latent classes.

|  |  |
| --- | --- |
|  | Number of latent classes |
| Fit statistic  | 1 | 2 | 3 | 4 | 5 |
| **Smoking status** |  |  |  |  |  |
| Log-likelihood | -3046.5 | -1949.0 | -1887.7 | -1876.1 | -1875.4 |
| G2 | 2347.5 | 152.6 | 30.0 | 6.7 | 5.3 |
| Degrees of freedom | 57 | 50 | 43 | 36 | 29 |
| p (G2) | <0.001 | <0.001 | 0.93 | 1.00 | 1.00 |
| AIC | 2359.5 | 178.6 | 70.0 | 60.1 | 73.3 |
| BIC | 2391.1 | 247.1 | 175.4 | 202.9 | 252.3 |
| Entropy | 1 | 0.93 | 0.82 | 0.80 | 0.82 |
| Average posteriorprobabilities | 1 | 0.99/0.97 | 0.83/0.91/ 0.97 | 0.66/0.84/ 0.87/0.96 | 0.49/0.81/0.86/ 0.74/0.96 |
| **Smoking intensity** |  |  |  |  |  |
| Log-likelihood | -1159.7 | -960.5 | -1930.7 | -923.9 | -922.1 |
| G2 | 481.2 | 82.9 | 23.2 | 9.7 | 6.1 |
| Degrees of freedom | 57 | 50 | 43 | 36 | 29 |
| p (G2) | <0.001 | 0.002 | 0.99 | 1.00 | 1.00 |
| AIC | 493.2 | 108.9 | 63.2 | 63.7 | 74.1 |
| BIC | 518.4 | 163.4 | 147.0 | 176.9 | 216.7 |
| Entropy | 1 | 0.74 | 0.68 | 0.69 | 0.65 |
| Average posteriorprobabilities | 1 | 0.90/0.94 | 0.83/0.86/ 0.90 | 0.81/0.87/ 0.79/0.88 | 0.81/0.73/0.58/ 0.85/0.86 |

AIC, Akaike’s Information Criterion; BIC, Bayesian Information Criterion