**Table S8: Educational level and employment status of individuals by assigned classes in the age group 16-44 years**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **’No or few diseases’****90.3%** §**(n=189,202)** | **’Bone-, joint diseases’****3.8%****(n=7,962)** | **’Mental illness, epilepsy’****3.5%****(n=7,378)** | **’Asthma, allergy’****1.4%****(n=2,985)** | **’Diabetes, heart diseases’****1.0%****(n=2,079)** | ***p*** |
|  | n (%) | OR | n (%) | OR [95%CI]1 | n (%) | OR [95%CI]1 | n (%) | OR [95%CI]1 | n (%) | OR [95%CI]1 |  |
| **Educational level** Missing Elementary school Short education2 Medium/long educ.3 § | 10.128.838.922.2 | 1.01.01.01.0 | 3.429.044.023.7 | 0.5 [0.4;0.5]2.2 [2.1;2.4]1.4 [1.3;1.5]1.0 | 4.744.236.214.9 | 0.9 [0.8;1.1]4.5 [4.2;4.9]1.8 [1.7;1.9]1.0 | 2.631.339.626.5 | 0.2 [0.2;0.3]1.0 [0.9;1.2]0.9 [0.8;1.0]1.0 | 5.630.846.117.5 | 1.2 [1.0;1.5]4.0 [3.5;4.6]1.9 [1.7;2.2]1.0 | \*\*\* |
| **Employment status** Working § Unemployed Sick leave etc.4 Early retirement pens. Other Student | 59.35.61.31.310.022.5 | 1.01.01.01.01.01.0 | 56.816.02.88.14.711.7 | 1.03.1 [2.9;3.3]2.2 [1.9;2.5]6.3 [5.8;6.90.8 [0.7;0.9]1.0 [1.0;1.1] | 28.432.23.713.27.614.9 | 1.011.9 [11.2;12.6]5.3 [4.7;6.1]21.4 [19.6;23.3]1.9 [1.7;2.1]1.7 [1.6;1.9] | 57.76.01.71.87.125.7 | 1.01.1 [0.9;1.3]1.2 [0.9;1.7]1.5 [1.1;1.9]0.8 [0.7;0.9]1.3 [1.2;1.4] | 57.618.22.014.63.54.1 | 1.04.0 [3.6;4.5]2.4 [1.8;3.3]9.9 [8.6;11.3]1.1 [0.8;1.3]1.1 [0.9;1.5] | \*\*\* |

\*\*\*: p<0.001; §: reference group; OR: Odds ratio compared to the reference group of being in a multimorbidity class compared to the reference class; *p*: Chi2-test for univariate association between demographic variable and classes; 1Adjusted for age and sex. 2 Completed high school, vocational school, or short tertiary education. 3 Completed medium or long tertiary education (>3 years).4 Includes individuals on sick leave, maternity leave, or other types of leave related to for example training