

**Supplemental table 4:** Bivariate and multivariable analysis of the categorical determinants of fatigue as defined by a Fatigue Severity Scale  $\geq 5$  in the Cohorte Lausannoise (CoLaus) study, Lausanne, Switzerland, 2014-2017.

|                     | Bivariate   |            | Multivariable model 1 |                    | Multivariable model 2 |                    |         |
|---------------------|-------------|------------|-----------------------|--------------------|-----------------------|--------------------|---------|
|                     | No fatigue  | Fatigue    | p-value               | OR (95% CI)        | p-value               | OR (95% CI)        | p-value |
| Gender              |             |            | 0.011                 |                    |                       |                    |         |
| Man                 | 1210 (47.7) | 124 (40.0) |                       | 1 (ref)            |                       | 1 (ref)            |         |
| Woman               | 1328 (52.3) | 186 (60.0) |                       | 1.45 (1.05 - 1.99) | 0.024                 | 1.43 (1.04 - 1.95) | 0.027   |
| Age group           |             |            | <0.001                |                    |                       |                    |         |
| 45-54               | 758 (29.9)  | 121 (39)   |                       | 1 (ref)            |                       | 1 (ref)            |         |
| 55-64               | 829 (32.7)  | 104 (33.6) |                       | 0.70 (0.49 - 1.00) | 0.051                 | 0.70 (0.49 - 0.99) | 0.045   |
| 64-74               | 691 (27.2)  | 48 (15.5)  |                       | 0.42 (0.27 - 0.64) | <0.001                | 0.41 (0.26 - 0.63) | <0.001  |
| 75+                 | 260 (10.2)  | 37 (11.9)  |                       | 0.81 (0.48 - 1.35) | 0.416                 | 0.79 (0.48 - 1.32) | 0.370   |
| Educational level   |             |            | 0.106                 |                    |                       |                    |         |
| Primary             | 293 (11.5)  | 49 (15.8)  |                       | 1 (ref)            |                       |                    |         |
| Apprenticeship      | 905 (35.7)  | 110 (35.5) |                       | 1.03 (0.64 - 1.67) | 0.902                 | -                  |         |
| High school         | 720 (28.4)  | 88 (28.4)  |                       | 1.11 (0.67 - 1.82) | 0.687                 | -                  |         |
| University          | 620 (24.4)  | 63 (20.3)  |                       | 1.10 (0.65 - 1.86) | 0.728                 | -                  |         |
| Smoking categories  |             |            | 0.762                 |                    |                       |                    |         |
| Never               | 1028 (41.4) | 121 (40.2) |                       | -                  |                       | -                  |         |
| Former              | 1002 (40.4) | 128 (42.5) |                       | -                  |                       | -                  |         |
| Current             | 453 (18.2)  | 52 (17.3)  |                       | -                  |                       | -                  |         |
| BMI categories      |             |            | <0.001                |                    |                       |                    |         |
| Underweight         | 41 (1.6)    | 1 (0.3)    |                       | 0.22 (0.03 - 1.85) | 0.162                 | 0.22 (0.03 - 1.85) | 0.162   |
| Normal              | 1032 (40.7) | 107 (34.5) |                       | 1 (ref)            |                       | 1 (ref)            |         |
| Overweight          | 1041 (41.0) | 116 (37.4) |                       | 0.94 (0.66 - 1.34) | 0.742                 | 0.94 (0.66 - 1.33) | 0.715   |
| Obese               | 424 (16.7)  | 86 (27.7)  |                       | 1.40 (0.93 - 2.08) | 0.103                 | 1.38 (0.93 - 2.06) | 0.109   |
| Insomnia categories |             |            | <0.001                |                    |                       |                    |         |
| No insomnia         | 1972 (84.3) | 145 (54.9) |                       | 1 (ref)            |                       | 1 (ref)            |         |
| Subthreshold        | 288 (12.3)  | 59 (22.4)  |                       | 1.45 (0.98 - 2.16) | 0.064                 | 1.46 (0.98 - 2.15) | 0.060   |
| Clinical insomnia   | 79 (3.4)    | 60 (22.7)  |                       | 3.90 (2.41 - 6.33) | <0.001                | 3.82 (2.36 - 6.18) | <0.001  |
| Caffeinated drinks  |             |            | 0.278                 |                    |                       |                    |         |
| None                | 240 (9.7)   | 40 (13.3)  |                       | -                  |                       | -                  |         |

|                        |             |            |                    |        |                    |        |
|------------------------|-------------|------------|--------------------|--------|--------------------|--------|
| 1-3/day                | 1603 (64.9) | 189 (62.8) | -                  | -      | -                  | -      |
| 4-6/day                | 546 (22.1)  | 62 (20.6)  | -                  | -      | -                  | -      |
| 7+/day                 | 82 (3.3)    | 10 (3.3)   | -                  | -      | -                  | -      |
| Self-rated health      |             |            | <0.001             |        |                    |        |
| Very good              | 656 (25.9)  | 23 (7.4)   | 1 (ref)            |        | 1 (ref)            |        |
| Good                   | 1505 (59.3) | 112 (36.1) | 1.61 (0.98 - 2.64) | 0.062  | 1.58 (0.96 - 2.60) | 0.069  |
| Average                | 358 (14.1)  | 144 (46.5) | 5.80 (3.40 - 9.87) | <0.001 | 5.65 (3.34 - 9.58) | <0.001 |
| Bad + Very bad         | 19 (0.8)    | 31 (10.0)  | 17.7 (7.32 - 42.6) | <0.001 | 17.2 (7.16 - 41.1) | <0.001 |
| Cardiovascular disease |             |            | 0.617              |        |                    |        |
| No                     | 2322 (91.5) | 281 (90.7) | -                  |        | -                  |        |
| Yes                    | 216 (8.5)   | 29 (9.4)   | -                  |        | -                  |        |
| Diabetes               |             |            | 0.006              |        |                    |        |
| No                     | 2343 (92.5) | 273 (88.1) | 1 (ref)            |        | 1 (ref)            |        |
| Yes                    | 189 (7.5)   | 37 (11.9)  | 0.99 (0.58 - 1.70) | 0.975  | 0.99 (0.58 - 1.69) | 0.979  |
| Depression (CES-D)     |             |            | <0.001             |        |                    |        |
| No                     | 2260 (91.8) | 170 (57.4) | 1 (ref)            |        | 1 (ref)            |        |
| Yes                    | 203 (8.2)   | 126 (42.6) | 3.31 (2.28 - 4.79) | <0.001 | 3.34 (2.31 - 4.83) | <0.001 |
| Anemia                 |             |            | 0.325              |        |                    |        |
| No                     | 2444 (96.3) | 295 (95.2) | 1 (ref)            |        | -                  |        |
| Yes                    | 94 (3.7)    | 15 (4.8)   | 1.24 (0.60 - 2.59) | 0.557  | -                  |        |
| Ferritin categories    |             |            | 0.971              |        |                    |        |
| >50                    | 2294 (90.4) | 280 (90.3) | -                  |        | -                  |        |
| Normal + low           | 244 (9.6)   | 30 (9.7)   | -                  |        | -                  |        |
| TSH categories         |             |            | 0.842              |        |                    |        |
| High > 4.22            | 223 (8.8)   | 30 (9.7)   | 1.50 (0.92 - 2.44) | 0.105  | -                  |        |
| Normal 0.27-4.22       | 2294 (90.4) | 277 (89.4) | 1 (ref)            |        | -                  |        |
| Low < 0.27             | 21 (0.8)    | 3 (1.0)    | 0.63 (0.13 - 3.11) | 0.566  | -                  |        |
| Free T4 categories     |             |            | 0.636              |        |                    |        |
| High > 22              | 58 (2.3)    | 6 (1.9)    | -                  |        | -                  |        |
| Normal 12-22           | 2419 (95.3) | 294 (94.8) | -                  |        | -                  |        |
| Low < 12               | 61 (2.4)    | 10 (3.2)   | -                  |        | -                  |        |
| Anti-hypertensive      |             |            | 0.461              |        |                    |        |
| No                     | 1755 (69.2) | 208 (67.1) | -                  |        | -                  |        |

|                  |             |            |        |                    |       |                    |       |
|------------------|-------------|------------|--------|--------------------|-------|--------------------|-------|
| Yes              | 783 (30.9)  | 102 (32.9) |        | -                  |       | -                  |       |
| Anti-histaminics |             |            | 0.156  |                    |       |                    |       |
| No               | 2481 (97.8) | 299 (96.5) |        | 1 (ref)            |       | -                  |       |
| Yes              | 57 (2.3)    | 11 (3.6)   |        | 1.06 (0.47 - 2.42) | 0.882 | -                  |       |
| Antidepressants  |             |            | <0.001 |                    |       |                    |       |
| No               | 2330 (91.8) | 240 (77.4) |        | 1 (ref)            |       | 1 (ref)            |       |
| Yes              | 208 (8.2)   | 70 (22.6)  |        | 1.48 (0.97 - 2.25) | 0.070 | 1.46 (0.96 - 2.21) | 0.076 |
| Hypnotics        |             |            | 0.004  |                    |       |                    |       |
| No               | 2439 (96.1) | 287 (92.6) |        | 1 (ref)            |       | 1 (ref)            |       |
| Yes              | 99 (3.9)    | 23 (7.4)   |        | 0.61 (0.31 - 1.23) | 0.167 | 0.63 (0.31 - 1.26) | 0.190 |

BMI, body mass index; ref, reference; -, not retained. Results are expressed as number of participants (row percentage) for the bivariate analysis and as multivariable-adjusted odds ratio (95% confidence interval) for the multivariable analysis. Bivariate analysis performed using chi-square; multivariable analysis performed using logistic regression. Two multivariable models were applied: model 1 included all variables significantly ( $p < 0.05$ ) associated with fatigue using the threshold of  $\geq 4$  of the fatigue severity scale, while model 2 included only the variables significantly ( $p < 0.05$ ) associated with fatigue using the threshold of  $\geq 5$  of the fatigue severity scale.