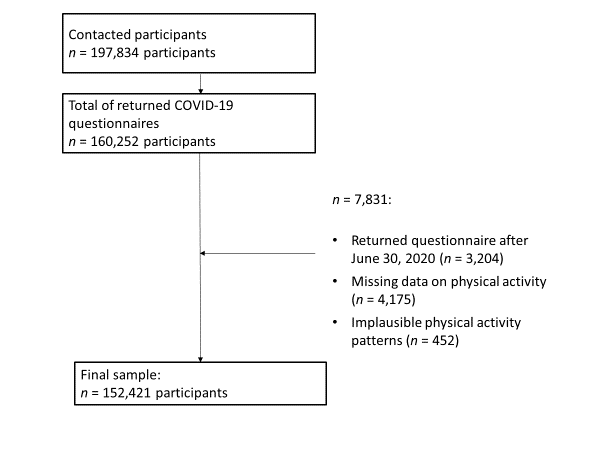
**Supplements**

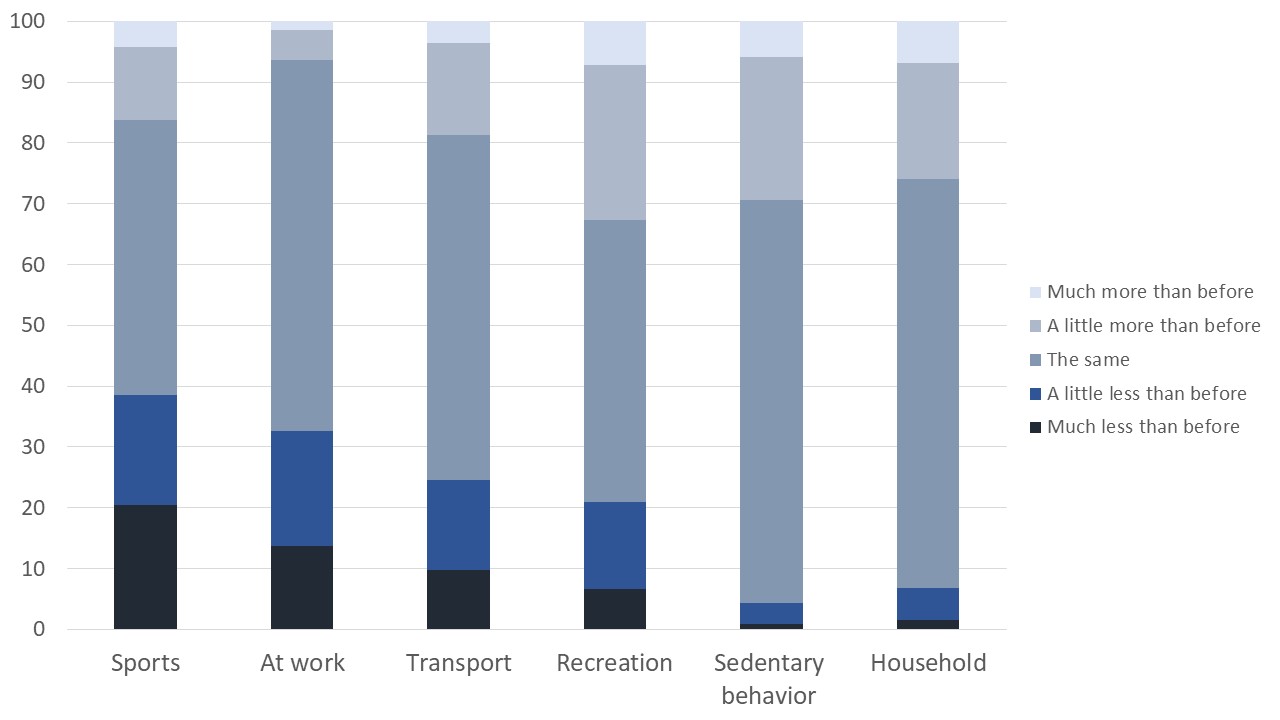
**Supplement 1. Flow diagram of the NAKO cohort study**

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**Supplement 2. Frequency of missing data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  | Missing | |  | Complete | |
|  | n | % |  | n | % |
| Self-reported PA change scores (COVID-19 survey) | 0 | 0 |  | 152,421 | 100 |
| Following PA guidelines (COVID-19 survey) |  |  |  |  |  |
| Before COVID-19 restrictions | 4,436 | 2.9 |  | 147,985 | 97.1 |
| With the onset of the restrictions | 5,385 | 3.5 |  | 147,036 | 96.5 |
| GPAQ (baseline survey) | 1,969 | 1.3 |  | 150,452 | 98.7 |
| Age (COVID-19 survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Sex (baseline survey) | 4 | 0.0 |  | 152,408 | 100.0 |
| Education (baseline survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Migrant background (baseline survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Altered working condition (COVID-19 survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Self-rated health (COVID-19 survey) | 736 | 0.5 |  | 151,685 | 99.5 |
| Changes in self-rated health (COVID-19 survey) | 716 | 0.5 |  | 151,705 | 99.5 |
| Anxiety (COVID-19 survey) | 492 | 0.3 |  | 151,929 | 99.7 |
| Depression (baseline survey) | 549 | 0.4 |  | 151,872 | 99.6 |
| Depression (COVID-19 survey) | 549 | 0.4 |  | 151,872 | 99.6 |
| Household with children (COVID-19 survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Feeling of loneliness (COVID-19 survey) | 352 | 0.2 |  | 152,069 | 99.8 |
| Member of a sports club (COVID-19 survey) | 9 | 0.0 |  | 152,412 | 100.0 |
| Living alone | 9 | 0.0 |  | 152,412 | 100.0 |
| Notes. n = number of respondents; GPAQ= Global physical activity questionnaire; | | | | | |

**Supplement 3. Changes in sedentary behavior and physical activity domains**



**Supplement 4. Interaction between age and the development of depressive symptoms on the change of physical activity and sedentary behavior at the onset of the COVID-19 restrictions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Sports | | | |  | At work | | | |  | Transport | | | |  | Recreation | | | |  | Sedentary behavior | | | |  | Household | | | |
|  | β | 95%-CI | | |  | β | 95%-CI | | |  | β | 95%-CI | | |  | β | 95%-CI | | |  | β | 95%-CI | | |  | β | 95%-CI | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age | -0.05 | (-.054 | -.042 | ) |  | 0.04 | (.037 | .048 | ) |  | 0.00 | (-.009 | .003 | ) |  | -0.03 | (-.033 | -.02 | ) |  | -0.07 | (-.073 | -.062 | ) |  | -0.08 | (-.081 | -.069 | ) |
| Δ depression (T2-T1) | -0.06 | (-.065 | -.053 | ) |  | -0.09 | (-.092 | -.08 | ) |  | -0.07 | (-.076 | -.064 | ) |  | -0.07 | (-.081 | -.069 | ) |  | 0.06 | (.058 | .07 | ) |  | -0.02 | (-.024 | -.012 | ) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interaction | 0.00 | (-.006 | .004 | ) |  | 0.00 | (-.004 | .005 | ) |  | 0.00 | (-.001 | .009 | ) |  | 0.00 | (-.004 | .006 | ) |  | -0.02 | (-.027 | -.017 | ) |  | 0.00 | (-.008 | .002 | ) |
| Age \* Δ depression (T2-T1) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Notes. *N* = 152,421; values of changes in sedentary behavior and all physical activity domains ranged from -2 to 2; additionally, adjusted for education, altered working conditions, self-rated health, anxiety, depression at baseline, living alone, feeling of loneliness, member of a sports club, physical activity at baseline, high regional number of COVID-19-cases, month of interview | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |