### Background:

The COVID-19 pandemic containment measures may affect lifestyle. We aimed to examine the changes in key lifestyle factors based on the data from same individuals before (2017) and during (2020) the COVID-19 pandemic.

# Methods:

The study is based on the FinHealth 2017 Study representing the Finnish adult population, and its follow-up questionnaire conducted in autumn 2020. A total of 4814 individuals aged 25 and older at baseline answered the same questions on lifestyle in both years. Regular leisure-time physical activity (LPA), daily use of vegetables and/or fruits, experience of adequate sleep, daily use of nicotine products and high-risk use of alcohol, were dichotomized (yes/no) for the analysis. Weighted prevalence (no/favorable/unfavorable change) for three age groups (25-49, 50-69, 70+ years) was analyzed using multinomial logistic regression, sampling design and non-response acknowledged.

## **Results:**

In general, the prevalence of total changes observed varied 6-27% between lifestyle factors. The changes were both unfavorable and favorable for health. About 14% (95% CI 11,17) and 12% (95% CI 9,16) of older women and men, respectively, had LPA in 2017 but not in 2020. Corresponding prevalence for favorable change in LPA were smaller, 6% (95% CI 4,8) in older women and 7% (95% CI 4,9) in men. In older women, the results concerning daily use of vegetables and fruits were parallel. In contrast, in older women the changes observed in the experience of adequate sleep were mainly favorable. In all age groups, high-risk use of alcohol slightly decreased especially in men but the changes in use of nicotine products were minor.

## **Conclusions:**

The results highlight unfavorable changes in LPA and vegetable consumption especially in older women during the COVID-19 pandemic. Part of the unfavorable changes may be explained by aging, but the pandemic containment measures may have accelerated them indicating the need for health promotion actions among the elderly.

# Key messages:

- The lifestyle changes observed during COVID-19 pandemic were complex, varying by sex and age groups and being both favorable and unfavorable for health.
- Special attention should be given to promotion of physical activity in the elderly during and after the pandemic.

# Individual level lifestyle changes during the COVID-19 pandemic – A Finnish population-based study

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