

Diet and physical activity during the first COVID-19 lockdown in France (March-May 2020)

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Background:

To counter the spread of COVID-19 and avoid overwhelmed health-care systems and numerous deaths, strict lockdown measures were adopted by many countries, causing an unprecedented disruption of daily life. Our objective was to explore the changes in dietary intakes, physical activity, body weight, and food supply occurring during the first lockdown in France (March-May 2020), in light of individual characteristics.

Methods:

37,252 adults from the French web-based NutriNet-Santé cohort completed lockdown-specific questionnaires. Nutrition-related changes and their sociodemographic and lifestyle correlates were investigated using multi-adjusted logistic regressions. Clusters of participants were defined combining multiple correspondence analyses and an ascending hierarchical classification.

Results:

During the lockdown, trends of unfavorable changes were observed: decreased physical activity (53% of the participants), increased sedentary time (63%), increased snacking, decreased consumption of fresh food (especially fruit and fish), and increased consumption of sweets, cookies, and cakes. Yet, the opposite trends were also observed: increased home cooking (40%) and increased physical activity (19%). Additionally, 35% of the participants gained weight (mean weight gain in these individuals: 1.8kg (SD:1.3) and 23% lost weight (2kg (SD:1.4)). All of these trends displayed associations with sociodemographic and lifestyle characteristics.

Conclusions:

These results suggest that nutrition-related changes occurred during the lockdown in both unfavorable and favorable directions, and differed according to individual characteristics.

Key messages:

- COVID-19-related lockdown in France led to nutritional changes in both unfavorable and favorable directions, linked to sociodemographic and lifestyle inequalities.
- Unfavorable changes should be considered to inform future lockdown decisions and monitored to prevent a future increase in the nutrition-related burden of disease.