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A new normal for healthy diet and lifestyle habits?

A first look at health behaviours post-lockdown

Lockdown restrictions introduced in response to the COVID-19 pandemic brought with them unprecedented changes to lives and livelihoods. Structural and social constraints forced dramatic behavioural change and led to technological, economic, and cultural shifts, bringing with them new ways of communicating, working, and socialising. In 2022, the world reopened its doors and individuals faced with this ‘fresh start’ had to once again adapt to a new normal. However, whilst a clearer picture of how behaviours changed upon entering lockdown is emerging, the question of how behaviours have changed upon reopening remains to be answered. Exploring this may help us navigate this new reality and identify the new challenges and opportunities it brings.

Lockdown behaviour: changes and challenges

During lockdown, physical activity levels declined in accordance with increases in sedentary time, which may have contributed to detrimental psychological outcomes.¹ Additionally, diet-related changes included increased snacking² and home cooking.³ However, while there appear to be some common trends, it has become increasingly clear that lockdown restrictions impacted different people in profoundly different ways, depending on factors including age, sex, occupation, and health status. For example, a study published in *BMJ Nutrition, Prevention and Health* (BMJ NPH), co-authored by multiple NNEdPro members, looked at changes in health behaviours in adults with type-1 and type-2 diabetes in the UK.⁴ Changes were observed in all participants, however their extent appeared to be dependent on participant’s health status. Participants with T2DM reported making less effort to get outside and exercise daily, and more individuals with T2DM reported consuming convenience foods and sugary foods, whilst also eating more fresh foods and drinking less alcohol than normal.

During the pandemic, understanding these patterns was key to providing effective support for different population groups, especially those subgroups who were disproportionately affected. However, the rapid pace of change of the emerging crisis made doing so a considerable challenge, and many vulnerable and marginalised people were not given the support they needed, as discussed in this *BMJ NPH* article.⁵ Then, as the health and economic burden of the virus lightened, restrictions were eased, and a new blend of challenges and opportunities emerged. The technological,

economic, and cultural shifts that had taken place during lockdown likely had significant impacts on the habits adopted upon reopening. For example, financial difficulties as a result of work-related challenges or redundancies may have impacted how people spend their time and money, influencing their health behaviours. Additionally, technologies which facilitate remote communication and shopping have rapidly progressed, which may have long-term impacts on how and how much people travel, eat, exercise and socialise. Capturing and comparing behavioural patterns post-lockdown can build on the knowledge gained during lockdown, and better support those most affected by the COVID-19 pandemic.

Health behaviours in a post-lockdown world

The pandemic accelerated the uptake of online grocery shopping, nearly doubling the fraction of grocery spending done online, which may positively influence the healthfulness of grocery shopping purchases⁶ and contribute to improving diet quality. Among US residents, 30% expected to grocery shop online at least a few times a month post-pandemic,⁷ and reports from the UK have revealed that food spending online is still higher than before the pandemic.⁸ However, some studies reveal that the preparation and consumption of food at home may have reduced post-lockdown.^{9,10} Other habits such as junk food consumption appear to have followed less clear trends, with both increases and decreases being recorded within and between studies.^{9,11} Interestingly, the authors of one study observed that while fruit, vegetable, and alcohol consumption had returned to pre-COVID levels, the sense of control over one’s life and level of psychological distress had not.¹²



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Multiple studies have reported an increase in physical activity levels when leaving lockdown.¹¹⁻¹³ However, as observed by Rousset *et al.* (2022),¹¹ this may be truer for certain types of physical activity, as only moderate-intensity activity duration increased after lockdown. Overall, the authors suggested that the decline in physical activity observed during lockdown was not sustained. However, as is the case with most of these studies, behaviours of the same population were not directly measured before lockdown, and therefore no direct comparisons can be made. Sleep is another behavioural factor that changed post-lockdown. Using the Oura ring, Massar *et al.* (2022) found that young adults had earlier, shorter bursts of sleep with an increase in sleep quality ratings.¹³ Similarly, one study observed less screen time for entertainment post-lockdown, and rates of students having good quality sleep rising by almost 10%.¹⁰

Importantly, as with the initiation of lockdown, it appears the changes in behaviour depend on a wide range of factors. For example shifts in physical activity, sleep, and wellbeing across the sample were associated with the degree to which individuals returned to in-person work after lockdown,¹³ and shifts in weight gain may have depended on living circumstances – i.e. living alone or with family.¹⁴ These and other factors may be related to income and socioeconomic status.

Why this matters

New technologies, ways of working, and social norms present new challenges for health that necessitate better preventative, management, and treatment strategies to mitigate health risks, especially for vulnerable populations. For example, the dramatic shift to online working, shopping and socialising increases the risk of digital exclusion for those who do not have access to or an understanding of smart devices and internet services. On the other hand, the digitalisation of our social infrastructure has contributed to rises in so-called ‘techno-anxiety’, ‘techno-phobia’, and ‘techno-addiction’.¹⁵

However, there remains a paucity of research looking at post-lockdown behaviours and the challenges and opportunities these new conditions bring. Even more troublingly, these studies are representative of limited populations, namely students in higher education, and insufficient attention has been paid to those most impacted by COVID-19 lockdowns.

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Moving forward

A YouGov survey found 85% of UK adults wanted some of the personal and social changes experienced during lockdown to continue afterwards, with only 9% wishing things to go back to the way they were.¹⁶ Similarly, a study on the ‘potential stickiness of pandemic-induced behaviour changes’ in American adults in 2020⁷ found that participants acknowledged potential benefits of restrictions, with 70% of respondents indicating there were aspects of pandemic life they would like to continue. For example, a move towards greater flexibility in working patterns was deemed a positive response, due to its direct impacts on quality of life, worker productivity, and commuting.

Benefits like these represent a handful of positives to come from lockdown restrictions, which deserve to be identified, understood and harnessed. For example, many cities provided temporary infrastructure for walking and biking during the pandemic, and more than 20% identified taking more walks as one of the top three aspects of pandemic life they enjoyed. To support a long-term shift, cities could make these changes permanent.⁷ Better education and awareness of the opportunities and challenges related to technology, as well as training on internet safety may also be valuable.

Final remarks

Despite the behavioural freedom afforded by the removal of lockdown restrictions, the new economic, social and technological conditions have brought unforeseen challenges for physical and mental health. Only through exploring and understanding these behavioural changes, as well as the impact they have on health risk, can we begin to identify and develop appropriate strategies for people to thrive in this new normal. The NNEdPro Nutrition and COVID-19 Taskforce has continuously synthesised and generated evidence relating to diet, nutrition and lifestyle factors relating to the pandemic and health outcomes, and will be presenting the sum total of 33 months of findings since March 2020 at the International Union of Nutritional Sciences in December 2022.^{17, 18} This includes a call to action to nutrition and health professionals worldwide to continue both knowledge generation and translation into practice based on emerging insights from the pandemic and beyond!



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