

A changed research landscape of youth's obesogenic behaviours and environments in the post-COVID-19 era

The 'Obesogenic Environment and Childhood Obesity' (OBECHO) project collected evidence (pre-January 2019) on built, food and natural environmental determinants of youths weight-related behaviours. The findings of the project have informed evidence for policy making and the establishment of a future research agenda to tackle the obesity pandemic among youths. Since the COVID-19 pandemic occurred immediately after the OBECHO project, the derived evidence has become an important guide for how youths interacted with the obesogenic environment in the pre-COVID-19 era. The use of lockdown measures worldwide have changed obesogenic environments and youth-environment interaction patterns. As a result of these changes, the authors argue that commonly used obesogenic environment research methods need to be updated.

First, youth's lifestyles have changed (increased consumption of unhealthy foods, more sedentary lifestyles). This means the use of smart-phone apps and over wearable devices to capture physical activity patterns are no longer useful for data collection methods. Instead, indoor behavioural data collection through tools such as the Internet of Things (smart furniture) and ecological momentary assessment (users report on behavior close in time to experience) are suggested as more appropriate. Second, food environments and the ways youths interact with them have changed since COVID-19. For example schools have been closed and online fast food has been ordered allowing purchase of food outside youths immediate food environment. Third, the way built environments are used has changed. Remote sensing used to capture the built environment needs to alter to more social sensing data such as use of public transport. Fourth, it must be considered that future obesogenic research must consider 2020 as an outlier when concluding findings. Going forward, high quality research will be required to ensure accuracy of cohort studies that are recommencing in the COVID-19 era.

The authors are concerned in general that the continuation of the COVID-19 pandemic and associated measures will cancel out existing efforts to improve obesogenic environments. There are particular concerns that those living in areas more greatly affected by COVID are living in more obesogenic environments. There is also opportunity to improve and update the methods used to provide evidence on obesogenic environments.

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World Obesity Federation Suite 406, 107-111 Fleet Street, London EC4A 2AB T: +44 (0)20 7936 9987 E: enquiries@worldobesity.org www.worldobesity.org Registered charity number 1076981. Registered in England and Wales, 3802726. A company limited by guarantee