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EDITORIAL

Five-minutes-to-twelve for implementation of early changes in dietary and lifestyle behaviour across Europe

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In Europe, as well as in the United States and many other affluent regions of the world, significant portions of the population are already overweight or obese, and obesity is increasing in many developing countries. Obesity is one of the main determinants of avoidable ill health and carries significant economic burden. Lack of long-term effective obesity treatment, as well as the diverse and sometimes irreversible health consequences of obesity, points strongly to increased focus on prevention.[1] Prevention needs to start early in life, as, by adolescence, young people who are already overweight are at high risk of becoming overweight adults, with the odds ratio for an overweight adolescent child becoming an overweight adult being 28.3 for 10- to 14-year olds compared with 10.3 for 6- to 9-year olds.[2] Although genetic factors may influence the susceptibility of individuals to gain weight, there is consensus that changes in lifestyle behaviours are driving the obesity epidemic, with energy input exceeding expenditure for many individuals leading to excess fat and weight gain. Prevention of unnecessary weight gain should thus target modifiable behaviours that influence energy intake and expenditure. Among children, these include dietary, physical activity and sedentary behaviours, all of which have been related to the development of obesity.[1]

Influences on dietary intake and physical activity linked to obesity are a complex interplay between social, environmental and biological processes. Research needs to match this complexity in both design and measurement. This is provided by the IDEFICS study (Identification and prevention of dietary- and lifestyle-induced health effects in children and infants). Longitudinal study from an early age is crucial to understand the trajectory of lifestyle behaviours, along with their determinants and consequences. The dearth of longitudinal data across this period means we know little about the tracking of health behaviours across key transition periods, from early years to school age and into adolescence. A major strength of the IDEFICS study is that it seeks to not only understand the developments of dietary habits and physical activity and their determinants[3] but also to develop and disseminate intervention strategies to influence unfavourable trajectories.[4] Uniquely within IDEFICS, there is also significant data collection in relation to ethical considerations beyond participant consent.[5] This is timely, as cohort and intervention studies demand considerable participant investment and little research has been carried out to capture the broader social and personal consequences of participation.

The European context of IDEFICS has been described as an 'ideal natural laboratory'[6] for dietary studies because of the heterogeneity in diet still present across the regions studied (Belgium, Cyprus, Estonia, Germany, Hungary, Italy, Spain and Sweden), as well as their different and evolving social contexts. Inequalities in society are reflected in behavioural differences including lifestyle and eating habits, which lead to significant health inequalities, both within countries and across the European Union, that undermine policies to reduce health inequality.[7] The diverse social groups included within the IDEFICS cohort will contribute to our understanding of the lifestyle trajectories of different social groups and their responsiveness to intervention strategies.

Investment in large cohort studies is substantial, and using the most rigorous measures available is key to justifying the effort. This supplement contains many studies carried out to ensure the quality and rigour of measures included in the IDEFICS study. This measurement rigour has been applied to diet[8,9] and physical activity,[10–12] as well as to measurement of social and biological determinants[13–15] and health consequences.[16–20] Furthermore, the detailed description of both the strengths and limitations with regard to measurement selection and development is an important resource for dissemination, given its potential for shaping future studies.[21]

All papers included in this supplement were reviewed not only by the guest editors and the editorial team of the International Journal of Obesity but also by a number of external expert reviewers. These efforts are gratefully acknowledged, as is the grant support of the European Commission that made the IDEFICS study possible. Cohort studies such as the IDEFICS study represent a valuable resource for the research and policy community. They offer the possibility of interdisciplinary applications to provide holistic representations of individuals across the early phases

of life to strengthen efforts to tackle the challenge of the rising incidence and prevalence of overweight and obesity in young people and related unhealthy lifestyles.[22]

Conflict of interest

The authors declare no conflict of interest.

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AS Page[1] and BM Winklhofer-Roob[2]
[1]*Centre for Exercise, Nutrition and Health Sciences, School of Policy Studies, University of Bristol, Bristol, UK and* [2]*Human Nutrition and Metabolism Research and Training Center, Institute of Molecular Biosciences, Karl Franzens University, Graz, Austria*
E-mail: brigitte.winklhoferroob@uni-graz.at

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