

Letters to the Editor

Food guides

A compromise solution

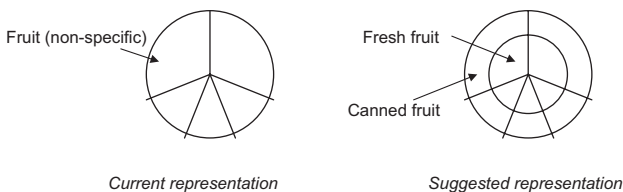
Madam

Carlos Monteiro's commentary⁽¹⁾ linking food guidance with food processing has special relevance for current public health nutrition challenges. As he explains, the degree of processing correlates with the amount of fat, salt and sugar added to foods, and the subsequent likelihood of dietary imbalances.

Also, processing can be a proxy for the relative environmental footprint of a food. As the degree of food processing increases, often so too does the requirement for energy inputs – directly in the processing itself and indirectly in packaging. Yet current food guides often are restricted simply to translating abstract nutrient recommendations into food serving (amount and variety) guidance.

Carlos Monteiro comments that his approach, which frames food guidance around the degree of processing, 'implies systematic revision of current official and authoritative dietary guidelines and graphic guides to food, nutrition and health.' Indeed. A suggestion for food guidance revision to capture degree of food processing, which also retains a conventional nutrient basis, follows. The key requirement is that the visual representation needs to be a shape that will enable the graphic to depict two distinct dimensions. The first dimension would, as now, portray the nutrient basis to food guidance – foods grouped in accordance to similar nutrient profiles, with recommendations for serving size, number and variety from each food group. The second dimension would provide an indication of the degree of food processing.

Thus, the plate shapes of the UK food guide⁽²⁾ and the Australian Guide to Healthy Eating⁽³⁾ could be adapted by overlaying an inner second circle (see figure below). Within the inner circle would be positioned minimally processed 'group 1' foods, for example fresh fruit. In the outer circle would be located the more highly processed 'group 2' foods that might still contribute the characteristic nutrients of a particular food group, for example canned fruit in syrup. External to the plate would be the 'ultra-processed' 'group 3'



Integrating a food processing dimension into a nutrient-based food guide

foods, indicating they make no contribution to a nutritious diet, for example fruit cordials containing minimal fruit.

This suggested guide has a number of advantages. It integrates nutrient and food processing considerations. It encourages people to discriminate on nutrition and environmental criteria by preferring food choices from the inner circle. Also, it could be used to set targets for changing dietary behaviour, by promoting an incremental shift in specific food choices within any food group from the outer circle to the inner circle of the plate.

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Obesity prevention in France

Yes, but how and why?

Madam

The report by Romon et al. describing a community-wide, multi-faceted intervention to prevent childhood overweight and obesity in France⁽¹⁾ asserts a substantial reduction over time in the prevalence of overweight and obesity in the intervention communities relative to two smaller comparison communities.

This novel approach to childhood obesity has been adopted by other European countries⁽²⁾ and will soon be implemented in South Australia⁽³⁾. It has been cited as a model for community-based solutions to obesity⁽⁴⁾. Reactions to this study have implications for public health worldwide.

We do not question the need for multi-level, multi-sector solutions to childhood obesity. We are, however, concerned about uncritical acceptance of the merits of this study, especially as the authors did not describe important elements of the intervention and its evaluation.

An intervention programme is a representation of a theoretical link between the known or perceived

determinants of a problem, the problem itself, and predicted changes in the problem situation⁽⁵⁾. The theoretical model underpinning this intervention study was not described. A theoretical model enables a systematic, evidence-based approach to planning and an explicit consideration of how change will be brought about and measured⁽⁶⁾. In this intervention, while the aim was to reduce the prevalence of overweight and obesity in the community, it is unclear how this was to be achieved, or whether any socio-behavioural theory was employed to guide strategies for individual and community change processes.

Specification of a programme or 'treatment' theory is required to make explicit the processes and pathways by which a project is to achieve its objectives⁽⁶⁾. In this study, the nature of the intervention components was not adequately described, nor the 'dose(s)', nor how community structures facilitated implementation, penetration and uptake of the intervention components.

Demonstrating beneficial change in potentially mediating variables such as diet and physical activity affecting overweight and obesity would have strengthened the conclusions that can be drawn from the study and thus indicate how the intervention worked. The authors note that data on diet and physical activity were collected in the Fleurbaix Laventie Ville Sante II study, but later state as a limitation that 'the absence of measurement of mediating variables prevents us from defining which aspects of the interventions were actually effective'. This is confusing. Behavioural data on potential mediators were available from 1997 onwards and could conceivably have been included in the longitudinal analyses reported in Table 1.

Regarding evaluation, information was not given on the selection process for intervention and control communities, or of important characteristics of communities such as population size and baseline prevalence of overweight and obesity across age groups.

The authors improved the sensitivity of their statistical analyses by correctly accounting for multiple within-subject measurements. They did not however account for the intra-class correlation of individuals within communities nor of students within schools. Only the latter point was conceded as a limitation; the authors state that school-level clustering could not be dealt with as they did not have data on the schools attended by students. This seems strange, as the interventions and measurements were entirely school-based. The impact of clustering is important to consider as it acts to reduce statistical power and any basis for inference.

These and other challenges to evaluating the effectiveness of community trials are well documented. They also include analytic inefficiencies, unbalanced data, attrition from longitudinal cohorts, differential representation in successive cross-sectional samples (relevant to the social class 'effects' noted in this study), and ecological and individual-level bias⁽⁷⁾. Threats to validity, and alternative explanations for the results reported, were not

adequately dealt with by the authors. It is not possible to assess whether factors other than the intervention could have yielded a changing prevalence of overweight and obesity between the intervention and control communities, or if the intervention is generalisable to different communities.

Given the potential significance of this study as a model for multi-level solutions to obesity among youth, and potential assumptions about the causal basis of its effects, we ask the authors to respond and also to publish a more detailed description to enable a transparent assessment of the intervention, basis for inference on its results and potential generalisability elsewhere.

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Moving in the same direction

Madam

We appreciate the opportunity to respond to the above letter regarding our findings on the downward trend in childhood obesity in the populations of Fleurbaix and Laventie in France⁽¹⁾.