

Letter to the Editor

Principles behind evaluations of national food and beverage taxes and other regulatory efforts

Dear Editor,

Considerable controversy surrounds taxes and other regulatory policies (such as restricting marketing to children and setting mandatory standards for foods available in schools) being implemented around the world to discourage unhealthy eating. Thus, it is imperative that, where implemented, these policies are evaluated to the highest standard, considering the specific elements of how the taxes and regulations are designed, existing consumption trends and any weaknesses in the available data used.

A crucial way to ensure a high-quality evaluation is to ensure that the evaluation team has the competency, skills and experience to conduct the evaluation. They must also be independent and have no conflicts of interest with regard to the findings. Another mechanism to support high-quality evaluations is to establish an independent advisory committee to provide oversight over the evaluation. Such mechanisms can (i) provide advice on the data utilized and the methods considered for each evaluation; (ii) review and provide rigorous feedback on preliminary results and methodologies and interpretation of results; (iii) review final papers and provide critical feedback; and (iv) provide credibility and transparency to the evaluation of implemented policies.

Such a committee has been put into place to provide guidance to and oversight of the evaluations of implemented taxes and regulations in Latin America (e.g. Mexico's sugary beverage and 'junk food' taxes; Chile's mandatory front-of-package labelling). The Mexico beverage tax Evaluation Advisory Committee comprises global experts with knowledge and skills in public health, economics, nutrition, epidemiology and marketing along with broader policy scholars who understand critical contextual issues. No members have conflicts of interest with regard to any entity that might be affected financially by evaluation results.

To guide our work, we have developed the following seven core principles to ensure that the evaluations are conducted to the highest possible standard.

- 1 Findings of the evaluations must be based on rigorous and well-accepted statistical methodologies.
- 2 Best practice methods must be used. Standard procedures in epidemiology and economics must be followed to allow for a reasonable baseline control period (e.g. ensure the pre-tax trends for products are known and

evaluate how the tax affects this trend line). Interrupted time series analyses/difference-in-difference analyses are an example of well-established methods. Experimental designs, while desirable when circumstances permit, are generally not feasible as there is no meaningful control. Analyses should adjust for variables at the individual or household level, as well as contextual variables that change over time and could be associated with the outcome of interest (e.g. demographic composition and inflation rates); this is particularly important in the absence of a true experimental design.

- 3 Data utilized in the evaluation must be of acceptable quality and representative of a meaningful population or subpopulations. National representativeness is ideal, but this must be balanced with what is available.
- 4 All studies should provide detailed descriptions of the methods used, sources of information, materials that describe the sample and the estimations (adjusted and unadjusted in tables or figures) and impact on minorities and/or lower income populations when possible.
- 5 The way in which the intermediate and final outcomes could change after a policy is implemented (e.g. change in prices or a change in marketing) must be clearly described and assessed. Intermediate measures of behaviour such as food purchasing behaviour should be assessed. Health impacts will take more years to achieve, so intermediate outcomes such as food purchases or dietary outcomes are critical.
- 6 All studies must have a description of the advantages as well as limitations of the datasets used, variables included, non-observable factors and the methods used. There must also be transparency requirements in the evaluation process, including funding sources and explanation of the source and treatment of the data. Source of funding matters: peer review by independent peers is critical but cannot prevent conflicts of interest from affecting results as has been shown (1–3).
- 7 Studies submitted for peer review and publication in established scientific journals must follow specific reporting guidelines (e.g. STROBE for observational studies and PRISMA for systematic reviews), as part of the Enhancing the QUALity and Transparency Of Health Research network.

As members of an Evaluation Advisory Committee, we take our role very seriously to ensure that contributions to the literature on what and how policies can help prevent the spread of obesity and non-communicable diseases across our globe are robust and valid. We have applied stringent standards to this end.

Conflict of interest statement

No conflict of interest was declared.

References

1. Lesser LI, Ebbeling CB, Goozner M, Wypij D, Ludwig DS. Relationship between funding source and conclusion among nutrition-related scientific articles. *PLoS Med.* 2007; 4: e5.
2. Vartanian LR, Schwartz MB, Brownell KD. Effects of soft drink consumption on nutrition and health: A systematic review and meta-analysis. *Am J Public Health.* 2007; 97: 667–675.
3. Brownell KD, Warner KE. The perils of ignoring history: Big Tobacco played dirty and millions died. How similar is Big Food? *Milbank Q.* 2009; 87: 259–294.

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