Evidence-based public health

Authors: Ross C. Brownson, Elizabeth A. Baker, Terry L. Leet, Kathleen N. Gillespie
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In the preface, the authors state that the aim of their book is “to provide practical guidance on how to choose, carry out and evaluate evidence-based programs and policies in public health settings”. Over the years I have seen many misguided efforts that have tried to apply rigid hierarchies of evidence to public health. In stark contrast this is probably the best reference book on evidence-based public health yet to have appeared.

The material for the book is based on training courses developed by the authors on evidence-based decision-making in public health. The very practical origins of the book are clear from its extremely coherent, logical and user-friendly structure. Its frequent use of examples, mostly from the USA, and its layout with inserted information boxes greatly facilitate the reader’s comprehension of the material. The book consists of nine chapters, the first of which sets the structure for the rest of the book as it provides an overview of the 6-step “sequential framework for enhancing evidence-based public health” expounded by the authors: develop an initial statement of the issue; quantify the issue; search the scientific literature and organize information; develop and prioritize programme options; develop an action plan and implement interventions; evaluate the programme or policy. The individual steps in this framework are explained in detail in chapters 4–9. The book can be read by those who do not have any background in epidemiology, with chapters 2 and 3 providing the necessary basic understanding of causality, systemic reviews, meta-analysis and decision analysis.

The authors also provide a very rigorous description of methods rooted in the social and management sciences: Delphi method, nominal group technique, scenario planning, SWOT analysis, among others.

One of the great strengths of the book stems from its pragmatic adaptation of the concepts used in evidence-based medicine to arrive at kindred concepts for evidence-based public health. Evidence-based public health relies more on observational than experimental studies, is based on a smaller amount of evidence, involves a longer time from intervention to outcome, and requires public health decisions to be made by interdisciplinary teams, rather than individual physicians.

Although the book is very good when it deals with public health programmes, it is not as strong on health policy. Readers who are specifically interested in the macro level of evidence-based health policy may be better served by Lin & Gibson’s Evidence based health policy: problems and possibilities (Oxford University Press, 2003). A further limitation of the book is that the examples and references are essentially from the US. While the basic tools, principles and skills it describes are useful for all public health practitioners, including those from developing countries, the book would have been even better had it been more tailored to an international readership. Taken as a whole, the book nevertheless provides a pragmatic, hands-on approach to evidence-based public health and a tool-box for public health practitioners and managers of public health programmes in all countries.

Reiner Banken

Food fight: the inside story of the food industry, America’s obesity crisis, and what can be done about it

Authors: Kelly Brownell & Katherine Battle Horgen
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The spread of obesity across the USA, and more recently internationally, has triggered major debates about its causes, prevention and treatment. The reality seems bleak: apart from during periods of famine, recession or war, no population has ever reversed a trend towards being overweight. Unlike tobacco use, obesity is still on the upswing of the epidemic curve with little sign of abatement; and as it spreads, its health and economic impacts are felt at the individual, community and national level. This is provoking public debate, academic interest, and has most recently alerted lawyers to the prospects of big money lurking behind yet-to-be-won cases against food companies.

In this book, the authors ask: Why is the epidemic of obesity spreading? What can be done to address it? Who supports public health actions and who opposes them? They mix scientific facts with advocacy messages in appropriate and highly readable doses and draw upon a wide range of sources to emphasize that it’s not all due to genes! Rather, they show just how many factors combine to increase levels of obesity: collapse of school physical activity programmes; less walking with increased urbanization; increased portion sizes of snacks and food rich in sugars and fats; cheaper widely-available energy-dense foods; ubiquitous marketing of food to children using celebrities and children’s TV programmes; and “pouring rights” deals that have led to vending machines in schools being stocked with sugar-laden sodas.

The authors’ analysis is relevant not only to the USA. WHO is in the midst of developing a global strategy to address the diets and lack of physical activity, which together with tobacco use and alcohol abuse, drive epidemics of chronic disease. There is overwhelming evidence that cardiovascular disease, type II diabetes, osteoporosis and other diet-related conditions are now major killers and causes of disability also in low- and middle-income countries. As a first step in developing the strategy,
WHO and the United Nations Food and Agricultural Organization (FAO) recently developed new science-based nutritional guidelines.¹

Even before the final version of the guidelines was published, lobbyists for some of the foods it recommended should be consumed in moderation started a sustained effort to block first its publication — and then its dissemination. Once the guidelines were in the public domain, the same lobbyists launched a sustained critique of its scientific basis — an attack that continues today.

Brownell & Battle Horgen describe similar efforts in the USA to dismiss public health messages about obesity and to prevent implementation of policies to address it. The central arguments presented by the lobbyists are always the same, are based on questionable science and lack detailed arguments. In addition they fail to give sufficient recognition that individuals are responsible for their own health; and complain about the insufficient roles for the food industry. The lobbyists also claim that some of the following policies are outside of the jurisdiction of health agencies or unlikely to have a significant impact of consumption patterns: taxing certain foods; restricting advertising targeted at children; removing subsidies on certain agricultural products; and litigation against food companies.

WHO learned from the struggle to develop the Framework Convention on Tobacco Control (FCTC) that opposition was greatest to those measures that were the most effective. And this may well be the case with food, even though few measures have yet been implemented on a large scale. Fear of these strong measures, growing consumer demand for action, and investment analysts’ recent warnings about the financial riskiness of certain food companies are now leading to changes in the food industry.

A significant number of companies on both sides of the Atlantic have started to systematically review the sugar, salt and fat content of all their products; examine their advertising to determine whether it targets children and if it promotes unhealthy lifestyles; and invest in new food products with possible health-enhancing properties. Some of these companies acknowledge that they must now show that they are committed to playing a role in solving the problem through actions rather than public relations campaigns. But they unfortunately remain in the minority. For many, including some major snack and soda manufacturers, and a formidable group representing sugar interests, it is a food fight they still believe they can win. Brownell & Battle Horgen therefore urge caution in interacting or forming partnerships with industry in order to combat obesity. Companies and trade associations opposed to change have made progress in making many developing countries believe that any reduction in sugar intake would threaten the lives of their poor farmers. These are essentially the same arguments used by the front groups set up by tobacco companies to try to stop adoption of the FCTC. But the arguments are spurious. Developed-country subsidies represent a greater obstacle than consumption patterns to poor sugar cane farmers. The pressure that companies will exert to protect their interests was recently demonstrated when sugar subsidies were scrapped from the final bilateral trade agreement between the USA and Australia.

In time, efforts to oppose unhealthy public policies will be recognized as being critically needed by all countries. Already a number of small island states where sugar cane production is a major source of income are starting to feel pressure from their populations to act decisively to halt growing epidemics of type II diabetes caused by unhealthy diets and a lack of physical activity. The allegations about the harm the new WHO strategy might cause will be recognized as false and it will be realized that there will be considerably more winners than losers. By calling for greater worldwide consumption of fruits, vegetables, nuts and grains, WHO is providing the world farming community with a powerful argument for its expansion and growth — not contraction!

Brownell & Battel Horgen provide useful advice for consumers. They urge action on many fronts — from individual’s own diets and physical activity to becoming actively engaged in developing policies to promote healthy choices. Read their book. Read also Diet, nutrition and the prevention of chronic diseases and the Draft global strategy on diet, physical activity and health (http://www.who.int/gb/EB_WHA/PDF/EB113/eb11344a1.pdf). The main messages you will get seem so obvious and almost mundane: eat more fruits and vegetables; reduce intake of sugars, salt and certain fats; be more physically active. But their implementation will take a revolution in food, agricultural and health policy — a revolution that has begun.

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