

More of the same epidemiology?

The future of Epidemiology is a recurring theme of journals and conferences. The latest focus of this debate is the type of research question that guides epidemiological research. The focus on etiological issues must be set aside in favor of results that can support effective public health interventions (Kuller LH. *Am J Epidemiol* 2013; 177:279-80; Glass TA et al. *Annu Rev Public Health* 2013; 34:61-75). Rather than confirming associations between physical activity, diet, smoking and cardiovascular diseases, we need assessments of effective measures to alter the population distribution of these risk factors. Etiological research represents only one stage in the research agenda, which must then move on to results that can effectively be translated into public policy.

Articles on Epidemiology constitute the largest share of submissions to *Cadernos de Saúde Pública/Reports in Public Health*. In most cases, these articles: report the results of cross-sectional studies; test causal associations between multiple factors and a defined outcome; adopt the p-value as the essential criterion for selecting variables; and follow overly simplified theoretical models. They take detailed care in data planning, collection, and processing, but contribute little to the advancement of scientific knowledge and have limited social impact.

Interestingly, there is a common pattern in the investigation of causal hypotheses. There is, of course, nothing wrong with that, but in science we cannot content ourselves with well-established approaches. Epidemiology can now draw on a widely diversified arsenal of analytical tools, ranging from *directed acyclic graphs*, or DAG, useful for modeling determination chains based on counterfactual logic, to a set of techniques and methods for the study of complex phenomena, comprising a domain called Systems Science.

This Editorial does not afford us enough space with which to conduct an in-depth reflection on the origins of this behavior. Still, one inevitably wonders whether this is yet another unwanted effect of “*publish-or-perish*”. Innovation takes time, effort and, particularly, taking risks without fear of making mistakes (Alberts B, *Science* 2013; 340:787). We urgently need to break the vicious cycle of “more of the same”. As Editors of CSP, we hope to publish articles that explore socially relevant issues in a creative and diversified manner.

Marilia Sá Carvalho
Claudia Travassos
Cláudia Medina Coeli
Editors