International Epidemiological Association

International Journal of Epidemiology, 2021, 1–3
doi: 10.1093/ije/dyab136
Opinion

Opinion

Public health science in the public square: lobby, litigate, listen

Henry Greenberg* and Charles C Branas

Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA

*Corresponding author. 473 West End Ave, New York, NY 10024, USA. E-mail: hmg1@columbia.edu

Accepted 21 June 2021

Introduction

Epidemiology faces a challenging opportunity. Global disruptions from a drawn-out, and arguably mismanaged, pandemic are triggering worldwide public conversations and policy debates. The political depredation of science, the health impacts of climate change and outcries over health inequity demand attention. 'Epidemiology', the word, if not the field itself, is top of mind.[1,2]

How might epidemiologists respond?

A key answer to this question is with a shift in focus. Hopefully, the excessively technocratic era of 'an unhealthy emphasis on how one does studies, not why' is ending.[3] Methodological development must of course continue but, at the same time, the field must equally embrace and elevate its other core purposes—directly solving human problems and doing good.[4] Multiple paths toward these ends are worth considering.

Influencing public policy

Epidemiology should embrace broader public policy concerns. Epidemiologist-led policy programmes[5–8] are useful models, but epidemiologists largely eschew a public role in policy generation.[9,10] Epidemiological organizations do not typically endorse campaigns to rally the public or influence policy makers. They usually limit themselves to consensus statements or expert committees aimed timidly at their own scientific leadership.

Our primary audience should much more robustly include the public and policy makers, not simply fellow scientists. Our focus should be on broad policy determinants of health and on how to implement programmes that fundamentally impact on public health. Initial opportunities might include scientific, data-driven advocacy, supporting structural change to contextual or socioeconomic policies. For example, taxes on sugar-sweetened beverages and alcohol,[11] conditional cash transfers shown to improve health,[6] remediating land and housing in under-resourced areas,[12] addressing climate change with solutions that balance health and sustainability and advising key entities, like the US Office of Science and Technology Policy and the US and regional offices of trade representatives, on broader national and global issues affecting health.

We could lobby to change policies and structures regarding recognized problems, like obesity or air pollution (US academic institutions are technically not permitted to lobby government; this needs to change). The health burdens of these global problems are so large that they threaten governmental fiscal stability.[13] This warrants a primary focus on interventional epidemiology, beyond behaviour modifications and medical care programmes. The primordial contexts leading to these problems need change. We must confront key political and corporate actors who might, wittingly or unwittingly, exacerbate these problems. Given that the WHO and government agencies are susceptible to political influence, epidemiology, especially from within universities, could be an excellent conduit for change.

Litigation as a tool

Non-governmental organizations (NGOs) devoted to challenging corporate or national policies posing future health risks have had impressive results. Client Earth[14] has had impressive wins—preventing construction of coal-burning

electricity generating plants in Poland and Greece; forcing English, German and Belgian governments to alter policies on air pollution; and successfully challenging commodity giants such as Glencore to align its policies to the Paris Climate Accord. Corporate data unearthed during the discovery phase of litigation have revealed corporate policies that violate regulations, law, previous statements under oath or ethics.[15]

Many universities hosting schools of public health also host law schools. These faculties could collaborate, mirroring the approach taken by NGOs. In recent decades, litigation has confronted public health problems—currently opioid misuse—but also tobacco, asbestos and lead poisoning.[16] Epidemiologists could contribute a scientific lens and even lead such efforts.

Welcoming a broader range of scientists

A third approach is to listen to, support and facilitate community voices. 'Citizen assemblies',[17] a throwback to colonial town meetings and Athenian democracy, are a recent addition to the toolbox of policy activists. They have had a broad reception, particularly in the European Union. Random lotteries identify participants, sorted by algorithms to match the composition of the citizenry and their prioritization of topics. They convene to discuss complex, controversial subjects. Their reports and conclusions, carrying weight, are forwarded to government as policy positions.

These 'minipublics' on scientific topics, like climate change in England and France and abortion in Ireland, have played important roles in formulating national policy. They could focus on vaccine hesitancy, distrust of science, gun violence, greenhouse gases or the inclusion of nutrition and genetics in school curricula. Epidemiology, offering data and clarity, could be the scientific engine.

The expansion of epidemiology's student population across racial, ethnic, class and economic divides must also be leveraged to provide critical new insights. Initiatives such as pipeline programmes and long-term scholarships could welcome in important new minds and produce discoveries which would otherwise have gone unseen, from and for communities of greatest need. In a decade or less, epidemiology could look, think and discover things differently.[18]

Epidemiology for the common good

Epidemiology and all public health fields are at a crossroads. There is a new willingness and acceptance of public activism to attain long-sought policies for the common good. This approach will likely find support within and outside the academy. Scientific advocacy in the public square, data-driven litigation and the inclusion of citizen voices and epidemiologists who would not otherwise have considered the field, could all greatly advance public health. Being perceived as overstepping permissible barriers and creating powerful antagonists, within either the academy or the political arena, are at least in theory potential drawbacks. Whereas there are such risks, there is no progress without risk. Thoughtful leadership, open to broad input, could navigate these waters. As Francis Bacon said, 'There is no comparison between that which is lost by not succeeding and that which is lost by not trying'.

Conflict of interest

None declared.

References

1. Venkat Narayan KM, Curran JW, Foege WH. The COVID-19 Pandemic as an opportunity to ensure a more successful future for science and public health. *JAMA* 2021;**325**:525–26.
2. Editorial Board. Epidemiology is a science of high importance. *Nat Commun* 2018;**9**:1703–04.
3. Davey Smith G. Post-modern epidemiology: when method meets matter. *Am J Epidemiol* 2019;**188**:1410–18.
4. Lemann N. *Can a University Save the World? A New Movement is Underway to Find Out. The Chronicle of Higher Education*. 2019. https://www.chronicle.com/article/can-a-university-save-the-world/ (12 January 2021, date last accessed).
5. Branas CC, MacDonald JM. A simple strategy to transform health, all over the place. *J Public Health Manag Pract* 2014;**20**: 157–59.
6. Lagarde M, Haines A, Palmer N. Conditional cash transfers for improving uptake of health interventions in low-and middle-income countries. *JAMA* 2007;**298**:1900–10.
7. El-Guebaly N. Don't drink and drive: the message of mothers against drunk driving (MADD). *World Psychiatry* 2005;**4**: 35–36.
8. Matsudo V. The role of partnership in promoting physical activity: the experience of Agita Sao Paulo. *Health Place* 2012;**18**: 121–22.
9. Samet JM. Epidemiology and policy: the pump handle meets the new millennium. *Epidemiol Rev* 2000;**22**:145–54.
10. Brownson RC, Hartge P, Samet JM, Ness RB. From epidemiology to policy: toward more effective practice. *Ann Epidemiol* 2010;**20**:409–11.
11. Grummon AH, Lockwood BB, Taubinsky D, Allcott H. Designing better sugary drink taxes: tax the sugar not the liquid. *Science* 2019;**365**:989–90.
12. South EC, Hohl BC, Kondo MC, MacDonald JM, Branas CC. Effect of greening vacant land on mental health of community-dwelling adults: a cluster randomized trial. *JAMA Netw Open* 2018;**1**:e180298.

13. Greenberg H, Pi-Sunyer FX. Preventing preventable chronic disease: an essential goal. *Prog Cardiovasc Dis* 2019;**62**: 303–06.
14. Wikipedia. Client Earth. en.wikipedia.org/wiki/ClientEarth (25 June 2021, date last accessed).
15. Rosner D, Markowitz G, Chowkwanyun M. ToxicDocs (http://www.ToxicDocs.org): from history buried in stacks of paper to open, sensible archives online. *J Public Health Policy* 2018;**39**:4–11.
16. Haffajee RL. The Public Health value of opioid litigation. *J Law Med Ethics* 2020;**48**:279–92.
17. O'Grady C. Power to the people: nations are turning to citizen assemblies to weigh up climate policies. *Science* 2020;**370**: 518–21.
18. DeVilbiss EA, Weuve J, Fink DS. Assessing representation and perceived inclusion among members of the Society for Epidemiologic Research. *Am J Epidemiol* 2020;**189**:998–1010.