



Minisymposium

Relationship between evidence and policy: A case of evidence-based policy or policy-based evidence?

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SUMMARY

The use (or non-use) of evidence in health policy is an issue of growing interest and concern among both academic researchers and policy makers. Most public health research is government funded, yet the extent to which its findings are used to shape and inform policy is variable in the extreme. Part of the problem lies in the nature of the evidence itself and the extent to which it addresses the complexities of the issue being researched. However, part of it also lies in the way that evidence gets communicated and transmitted to those intended to benefit from, or act on, it. This paper reviews such matters and argues in favour of research that is more attuned to the needs of policy makers and practitioners. To achieve this, a paradigm shift is needed in the way in which research is produced and consumed. Rather than academics exclusively setting the agenda, a new approach to knowledge co-creation is overdue whereby researchers, and those they are seeking to address, work together to define the research questions, agree the methods, and assess the implications of the data analysis and findings for policy and practice.

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Introduction

The evidence base in public health is claimed to be weak, lacking the alleged rigour and certainty of evidence in clinical care. However, the problem may lie not so much, or certainly not entirely, in poor evidence, of which there is undoubtedly some (as indeed, there is in respect of evidence on clinical care), but may lie in the methods used to assemble it and the political context in which that evidence then gets deployed (or not) to inform policy and practice. Public health interventions often demand a process of social change, and their effectiveness is the result of a complex mix of factors: leadership, changing environments, organizational history, culture, and so on. In such complex systems, the type of evidence that can best inform policy is not reducible to clinical trials or experimental designs of the type that dominate evidence-based medicine. Nor can it be assumed that the pronouncements issued by researchers are accepted without question and 'result in the transformation of society'.¹

In studying complex, unstable and non-linear social change that is a necessary corollary of many public health interventions aimed at improving health and tackling health inequalities, acquiring evidence on why and how something works and in what contexts becomes critical. Failure to use or act on research might be the

consequence of various factors. It could be because of the limitations of the rational, linear paradigm which has governed the way in which research is generally conducted. Researchers sometimes assume that merely publishing their work should constitute sufficient grounds for the take-up of their findings and recommendations, and while funding agencies are demanding more by way of effective dissemination and application of research findings, the research community as a whole has yet to respond to this shift in ways which suggest that there is a genuine recognition that completing the research is not the end of the process but, in some respects, marks the end of the beginning.

A failure to use research could also be because the research is perceived as threatening to existing power relationships or entrenched vested interests, rather than because the evidence is insufficiently robust or flawed. Research is only likely to be useful in influencing and shaping policy if researchers and policy makers engage with each other from the conception of the research through to its completion. For the most part, the required paradigm shift in the conduct of research has yet to occur. At most, translational research, if it happens at all, seeks to identify more effective ways of communicating research to policy makers and practitioners. It is a unidirectional flow of knowledge. However, this model of research with its one-way transmission of messages is no longer tenable in a rapidly changing world where complex processes are at work. Researchers need to engage in a much more dynamic two-way dialogue with their potential 'customers' or 'clients' in order to allow them to influence and shape the research

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questions at the outset and how they subsequently get addressed. Such an interactive approach is recognized in the Canadian Institutes of Health Research's definition of knowledge translation in terms of exchange, synthesis, dialogue and interaction between researchers and users.² This paper reviews the implications of such an approach, and argues that its strength lies in its sensitivity to different contexts. It may therefore have appeal across diverse health systems with very different priorities, resources and levels of development.

The policy–research interface: why is it problematic?

The relationship between research and policy is far from optimal and, for the most part, these activities occupy a parallel universe. While there are important gaps in the knowledge base, especially in respect of what interventions work in improving health and why, it is also the case that knowledge does already exist. Furthermore, in some organizations and areas, such knowledge is being put to good use and informing policy and practice. The issue, then, is not so much the lack of connectivity between research and policy, but its ad-hoc, piecemeal nature. The agenda is therefore one of leadership and organization development rather than simply doing or consuming more research. Indeed, there is already a risk of accumulating data and stockpiling knowledge without being sure why or, more importantly, without satisfying ourselves that we are utilizing or applying what already exists.

Despite the pressure to attach greater priority to evidence-based policy, the reality is still too often opinion-based policy. Indeed, this is the conclusion of the House of Commons Health Committee's inquiry into the use (or non-use) of research in health inequalities policy.³ In a highly critical report, the Health Committee cited several initiatives which had been introduced without any prior evaluation. Even where evaluation has been undertaken, the Health Committee pointed out that it often focuses on processes rather than on what works in achieving better outcomes. These deficits are aggravated by a culture which Sennett asserts is based on policy consumption.⁴ He argues that for most of its term in office, 'New Labour has behaved like consumers of policy, abandoning them as though they have no value once they exist'. Nothing is given time to prove itself and become embedded, and in its place is endless 'fiddling' and a continual procession of new projects with funding for a limited period. Following its critique of the way in which health policy is made, the Health Committee recommended that its design and evaluation should demonstrate adherence to a set of accepted research methods.

The reasons for the sorry state of affairs described by the Health Committee are both complex and not well understood. After all, the Government funds most of the research that is now undertaken in respect of health policy, so it may seem rather odd that it often fails to inform policy because of a failure to align the research with the needs of those who may be expected to use and implement it. It is also the case that the expectations of policy makers may be unrealistic. As the Health Committee was told by one witness, 'too many users of policy research still expect clear answers about impact when a more realistic product of evaluation is that [it] contributes to a process of enlightenment about highly complex processes that are interpreted by different actors in multiple ways'.

The research community must also accept its share of responsibility for the failure to produce research of the type wanted and on time. As the World Health Organization (WHO) Commission on the Social Determinants of Health put it, 'research is needed to generate new understanding in practical accessible ways'.⁵ However, academics sometimes struggle with producing research findings that are either practical or accessible. It may be no coincidence that consultancies, or arms-length bodies like the Department of

Health's National Support Teams and the Audit Commission, can be found doing work that at one time would have been the provenance of academic researchers. Collusion between those academics who may prefer to refrain from muddying their hands in the real and messy world of policy, and the requirements of the UK Research Assessment Exercise, which places a premium on academic peer review publications rather than on evidence of impact on policy, may have something to do with the absence of academics from much policy thinking or evaluation. Another issue has been commented on by Marmot when he observes, 'scientific findings do not fall on blank minds that get made up as a result. Science engages with busy minds that have strong views about how things are and ought to be'.⁶

The relationship between research and policy is therefore complex and not a rational, linear one in which research findings are directly fed into and determine policy. As noted above, often where evidence does already exist, it is not used or is ignored completely. It is certainly rarely applied consistently, continuously or proportionately. Marmot states that 'people's willingness to take action influenced their view of the evidence, rather than the evidence influencing their willingness to take action'.⁶ Coote *et al.* conclude their review of evidence-based policy by noting that government programmes like Sure Start are largely driven by informed guesswork, expert hunches, political and other imperatives.⁷ Two brief examples serve to illustrate the issue.

Health sector reform

The first example concerns health system re-organization or, more accurately, 'reorganization'.⁸ Health system reform is a major industry in many countries and keeps many management consultancies in profitable business.⁹ In the UK, the National Health Service (NHS) has undergone some 14 major re-organizations over the past 35 years (i.e. nearly half its life). Despite governments displaying a propensity to constantly meddle with the structure of healthcare services, there is no evidence to support the claim that re-organizations on the scale which, for example, have convulsed the NHS on successive occasions since 1974 have been desirable or successful. It is certainly far from being the case that any gains from them outweigh the significant transaction costs incurred. Studies show that merging and restructuring healthcare organizations is futile since none of this activity leads to improved efficiency or improvements in health.¹⁰ The alternative to structural change is cultural change, but this is likely to be overturned in favour of technocratic solutions.¹¹ What the evidence does suggest is that cultural rather than structural change is needed if changes in the way in which health services conduct their work and respond to patients' needs are sought. However, it carries little appeal because it is not visible in the way that structural change is, and it takes time to occur and be seen to succeed. For health ministers keen to claim credit for tangible advances, invisible change of this type is not welcome. Added to which is the temporal dilemma in modern politics, namely that long-term goals which take time to secure run counter to political short-termism, expediency and electoral cycles. Inconvenient evidence is therefore ignored in favour of what amounts to little more than symbolic policy making. The result is often a case of 'dynamics without change'.

Implementing public health

The second example concerns public health and a seeming inability to implement agreed policies despite the priority accorded them and, where they exist, the resources to do so. There are many possible explanations for this state of affairs, and a number of these revolve around the public service reform agenda which, over the

past decade or so, has been influenced by neo-liberal thinking based on the alleged superiority of markets, competition and choice to improve efficiency and effectiveness. In England (Scotland and Wales have chosen a different reform path), governments have become fixated on individual choice, lifestyle behaviour and personal responsibility as enshrined in the NHS Constitution introduced in 2009. The structural determinants of health, so eloquently described in the report of the WHO Commission on the Social Determinants of Health, have been played down or marginalized. There seems to be a disconnection between a degree of acknowledgment that such things matter on the one hand, and the absence of effective action to follow through on the other hand. Part of the explanation may lie in those same governments being fearful of being labelled the ‘nanny state’.¹² In such a climate, the focus is on the state as enabler rather than steward. Governments restrict their role to providing health promotion advice, information and education. Consistent with this approach, the policy emphasis is on individual risk behaviours in the belief that this is where the quickest short-term progress can be made.

There may also be a problem with the research enterprise itself, and the value bestowed on academic researchers as having anything useful or valid to contribute to the policy process. As noted earlier, there is a huge paradox here. Governments are significant funders of research, which raises its own problems in regard to the independent and authenticity of research. However, a more significant problem is that governments seem unable to know what to do with the research they fund or are strangely dismissive of it, especially if it contradicts or challenges cherished policies. It is as if it is sufficient to fund research at the expense of utilizing it to inform policy, thereby confirming Keynes’ famous remark about there being ‘nothing a government hates more than to be well-informed, for it makes the process of arriving at decisions much more complicated and difficult’.

Policy-making models

There is a need to better understand the policy-evidence nexus if there is to be any serious prospect of bringing about a paradigm shift in how research is used. Bowen and Zwi usefully identify six policy-making models as follows¹³:

1. Knowledge-driven model—the orthodox rational linear model of knowledge generation that is then directly applied to policy and which is still held up as the ideal by some policy makers, but which has spectacularly failed to deliver.
2. Problem-solving model—the instrumental view whereby research provides evidence to solve policy problems; it is a common and frequently embraced model, although the evidence it gives rise to may be ignored or contested if seen as threatening or uncomfortable in respect of established interests and/or practices.
3. Interactive model—where the search for knowledge moves beyond research to include a variety of sources, including politics; it seeks to reflect the complexity of policy and practice and may be the most relevant model, although it demands changes in the way that policy makers and researchers interact and is often difficult to conduct and get funded.
4. Political model—research is not welcome unless it serves a political purpose, which often results in evidence being sought to justify the problem and the solution in post-hoc fashion; the model is often denied to exist because it is seen as corrupting of the research endeavour, but arguably it drives how evidence is used or misused.
5. Enlightenment model—cumulative research shapes concepts and perspectives that permeate the policy process over time,

influencing how people think about issues; some evidence exists for this model although it is hard to establish causation, especially when contemporary policy moves so swiftly that research of a traditional type finds it all but impossible to keep pace with it.

6. Tactical model—evidence is used to support and justify government inaction, or rejection of and delay in commitment to a policy issue; the model is commonly found in practice although is rarely acknowledged, only becoming evident when policy makers do not wish to act for whatever reason. It provides cover and a way of deferring action with the converse also applying, namely that the absence or lack of evidence rarely prevents policy makers from acting when determined to do so.

Within these models, the interactive model offers the best hope of bringing about a new and more productive relationship between research and policy. However, while it may represent the desired goal, it needs considerable work on the part of policy makers and the research community before it can be achieved. What is needed is a compact between policy makers and researchers which seeks to recognize their respective differences and varied needs. Three principles could inform such a compact. First, research should not be rejected out of hand because it is perceived as potentially threatening to vested interests or does not provide quick or immediate solutions to complex problems. Second, testing policies against available evidence should be the norm and should be a continuous process whereby policy is modified, refined and reshaped according to the evidence as it becomes available. Finally, researchers need to modify their ways and accept that research should be available when needed, offer practical actions wherever possible, and be communicated in ways which are both accessible and fit the prevailing policy direction. Indeed, it behoves the research community to acknowledge its need to change if it wants research to have relevance and hopefully an impact. As noted earlier, for the most part, there continues to be a poor fit between public health research findings and the needs of policy makers. Were this not the case, it seems unlikely the UK Clinical Research Collaboration would have established five centres of public health research excellence, all intended to build capacity in policy relevant research and to work in new ways with practitioners and policy makers.¹⁴

How can research be made more ‘fit for purpose’ and wrest back the initiative from what has become a rapid growth in think tanks and consultancies usurping the traditional role occupied by academia and filling the vacuum in ways which only partially meet the required quality standard? Some of the changes needed include the following:

7. less descriptive research—public health is awash with it;
8. more ‘real-life’ and ‘real-time’ applied research;
9. more and deeper engagement with the policy and practice communities from the conception of the research questions through the design of the research, to acting on the evidence emerging from the research;
10. more emphasis on research on social, environmental and economic interventions since there are huge knowledge gaps;
11. less research on behavioural and risk factor modification as we already have sufficient knowledge in these areas; and
12. more advocacy of the fruits of research on the part of researchers—not just the publication of peer reviewed papers but using a variety of opportunities and media to disseminate key messages that chime with policy makers’ and practitioners’ pre-occupations.

The WHO Commission on the Social Determinants of Health set out what it thought had to happen to connect research with

policy and practice. 'Business as usual' was no longer an option. Heeding the evidence was essential as policy making all too often appears to happen as if there were no such knowledge available. Much is already known about the social determinants of health, and while we may not yet know enough, this should not become an excuse for delay or inaction. Systems thinking has much to offer here on the grounds that complex problems need to be worked on continually rather than waiting for the right answers to emerge from a period of inquiry by which time policy and practice may have moved on.^{15,16} There is no simple or final solution to complex problems, but a constant process of inquiry and learning. The enlightenment model referred to earlier has value in helping to create a climate of understanding and change. Finally, political will is needed to implement difficult but feasible challenges. For this reason, researchers need to become advocates for research, thereby contributing to that political will. Either that or a different breed of research advocates needs to be nurtured to perform this task.

Conclusion

Given the issues reviewed in this paper, an evidence-informed public health is probably the best that can be hoped for. Indeed, Ovretveit suggests that 'an evidence-based public health is neither desirable nor feasible'.¹⁷ What is needed is not only more and better research, but public health managers able to use the research and skilled in translating it to their local setting. While public health is both an art and a science, it should not be an act of faith. For reasons touched on earlier, policy will rarely, if ever, be wholly or even largely research based. Nor should it be, since research findings are rarely so definitive or robust that they rule out alternative interpretations or emphases. Evidence is never perfect and rarely complete or unequivocal. Trade-offs and judgements need to be made which are the responsibility of elected politicians and not unaccountable researchers. However, this is not to deny the important role of research, even if it only poses questions which give chief executives, directors of public health and others pause for thought.

Evidence-informed public health therefore seems to be a reasonable, modest and achievable goal. However, we are some way from achieving it. If we continue as we are, the public can legitimately ask why there continues to be investment in public health research—investment which, in the UK at any rate, has grown significantly in recent years, although still representing a modest proportion of the total funds available for clinical research. Public health research has failed to engage optimally with its users, and the need to do so has never been greater; this is perhaps its greatest challenge. Indeed, this is acknowledged in the growing, and welcome, interest being shown in the whole area of knowledge transfer, knowledge mobilization and knowledge co-creation.

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References

- Ogilvie D, Craig P, Griffin S, Macintyre S, Wareham NJ. A translational framework for public health research. *BMC Public Health* 2009;**9**:116.
- Canadian Institutes of Health Research. *Innovation in action: knowledge translation strategy 2004–09*. Ottawa: CIHR; 2004.
- House of Commons Health Committee. *Health inequalities. Third report of session 2008–09. Volume 1. HC 286-1*. London: The Stationery Office; 2009.
- Sennett R. *The culture of the new capitalism*. London: Yale University Press; 2006.
- World Health Organization. *Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the commission on social determinants of health*. Geneva: WHO; 2008.
- Marmot M. Evidence based policy or policy based evidence? *Br Med J* 2004;**328**:906–7.
- Coote A, Allen J, Woodhead D. *Finding out what works: building knowledge about complex, community-based initiatives*. London: King's Fund; 2004.
- Smith J, Walshe K, Hunter DJ. The 'redisorganisation' of the NHS. *Br Med J* 2001;**323**:1262–3.
- Craig D. *Plundering the private sector: how new labour are letting consultants run off with £70 billion of our money*. London: Constable; 2006.
- Braithwaite J, Westbrook MT, Hindle D, Iedema RA. Hospital sector organisational restructuring: evidence of its futility. In: McKee L, Ferlie E, Hyde P, editors. *Organizing and reorganizing: power and change in health care organizations*. Basingstoke: Palgrave Macmillan; 2008.
- Fulop N, Perri 6, Spurgeon P. Processes of change in the reconfiguration of hospital services: the role of stakeholder involvement. In: McKee L, Ferlie E, Hyde P, editors. *Organizing and reorganizing: power and change in health care organizations*. Basingstoke: Palgrave Macmillan; 2008.
- Jochelson K. Nanny or steward? The role of government in public health. *Public Health* 2006;**120**:1149–55.
- Bowen S, Zwi AB. Pathways to 'evidence-informed' policy and practice: a framework for action. *PLoS Med* 2005;**2**:600–5.
- Gray S. UKCRC centres of public health excellence. *J Public Health* 2008;**30**:370–4.
- Plsek P, Greenhalgh T. The challenge of complexity in health care. *Br Med J* 2001;**323**:625–8.
- Australian Public Service. *Tackling wicked problems: a public policy perspective*. Canberra: Commonwealth of Australia; 2007.
- Ovretveit J. Research-informed public health. In: Hunter DJ, editor. *Managing for health*. London: Routledge; 2007.