HEALTH PROMOTION INTERNATIONAL Vol. 19. No. 2 © Oxford University Press 2004.
doi: 10.1093/heapro/dah212

Advocating evidence-based health promotion: reflections and a way forward

LUCIE RYCHETNIK[1] and MARILYN WISE[2]

[1]*Sydney Health Projects Group and* [2]*Australian Centre for Health Promotion, School of Public Health, University of Sydney, Australia*

SUMMARY

In the past few years, significant advances have been made in health promotion to generate readily accessible systematic reviews of evidence on the effectiveness of interventions and programs. The influence of this evidence on policy and practice has, however, been unpredictable, and proponents of evidence-based practice are identifying ways to increase the use of research in decisions about health promotion interventions. This paper examines the following questions: (i) is the evidence that is available on the effectiveness of interventions actually relevant and useful to current policy and practice contexts?; and (ii) what is the researcher's or reviewer's role in interpreting the available evidence and advocating action based on their interpretations? The paper concludes by proposing an 'evidence-agenda map' to assist advocates of evidence-based policy and practice to identify the health promotion goals they seek to influence against the required and available evidence.

Key words: evidence-based, policy, practice

INTRODUCTION

The aims of this paper are to contribute to contemporary reflections on the use of evaluation research as evidence in health promotion decision-making, and to encourage debate among researchers, evaluators and reviewers of evidence about their role as advocates of evidence-based policy and practice.

In the past decade, advocates of evidence-based health care have paid increasing attention to promoting the use of evidence among those involved in formulating health policies and managing services and programs (Ham *et al.*, 1995; Florin, 1996). This is based on the premise that like health practitioners, those involved in health policy development or program management should be informed of what is known about the benefits, harms and costs of interventions to promote, protect or maintain the health of populations. Such knowledge relies on their having access to appraisals of the available evidence. In this context, evidence refers primarily to information derived from evaluation research that has assessed the effects and outcomes of potential interventions and programs. Ideally, the evidence has been derived from systematic reviews that have critically appraised and summarised all the relevant and available evaluation research. For the purpose of this paper, evidence-based health promotion is

Parts of this paper were presented on 21 September 2001 at a forum entitled *Reducing Inequalities in Health: Using Evidence to Influence Health Outcomes* hosted by the Australian Centre for Health Promotion and the Centre for Health Equity Training, Research and Evaluation.

defined as an approach that incorporates into policy and practice decision processes the findings from a critical examination of demonstrated intervention effects.

In health promotion, the momentum for evidence-based policy and practice has coincided with the growing impetus for interventions that address environmental and contextual determinants of health, in addition to individuals' behaviour and risk factors. This follows improved understanding of the role of social, physical, economic and environmental factors in shaping people's life chances and health outcomes (Marmot, 1999; Marmot and Wilkinson, 1999). The impetus to broaden the health promotion agenda has been reinforced by concerns about the variable effectiveness of past health promotion initiatives (Sorensen *et al*., 1998), and persistent and growing inequalities in health in Australia as well as overseas (Gwatkin, 2000; Griffiths *et al*., 2001). The push for evidence-based health promotion must be examined in the light of these emerging priorities (Mackenbach, 2003).

Despite the progress that has occurred in building an evidence base for health promotion, there remain questions about the use of this evidence in setting priorities for action. The influence of research in policy settings has often been hindered by the fact that researchers and policy makers identify problems and solutions differently, and use different types of evidence to inform their conclusions (Orosz, 1994). Thus, proponents of evidence-based health promotion need to collaborate with, and convince, legislative and administrative decision-makers (Walshe, 2001), both within and outside the health sector. Those promoting the use of research as an essential ingredient for sound policies and programs should also consider the following questions:

- Is the evidence that is available on the effectiveness of interventions actually relevant and useful to current policy and practice contexts?
- What is the researcher's or reviewer's role in interpreting the available evidence and advocating action based on their interpretations?

We pose some answers to these questions in this paper. We then conclude by proposing the use of an 'evidence-agenda map', a tool to identify the health promotion goals one may seek to influence, which are then mapped against the required and the available evidence.

UNDERPINNING THEORY

This paper is underpinned by the view that the 'concept' of evidence is socially constructed, i.e. what counts as evidence, rules and criteria for assessing evidence, and whether evidence is valued at all are negotiated phenomena (Krieger, 1992; Peterson and Lupton, 1996; Chan and Chan, 2000). As a result, concepts of evidence vary among professional, disciplinary and social groups; for example, scientists have traditionally adopted different standards of evidence to lawyers (Barratt and Bates, 1997). Since the advent of evidence-based medicine in the early 1990s, health professionals, managers and consumers have been debating (and renegotiating) what is considered as valuable and credible evidence to support decisions about health services, public health, health promotion and health policy (Evidence-based Medicine Working Group, 1992; Klein, 2000; McQueen, 2001; Heller and Page, 2002).

Public policies, including health policy, are also the products of negotiation and compromise, often between competing political, commercial, professional and community stakeholders (Willis, 2002). As such, public policies reflect the values of those with the greatest influence, and are imbued with how those groups perceive that the world is, or ought to be (Altenstetter, 1987). A 'policy community' describes all the participants in a policy process who debate the issues or contribute to its development (Jordan and Richardson, 1987; Linquist, 1991).

Theoretical overviews of policy development provide valuable insights into the processes with which advocates of evidence-based health promotion must engage and negotiate (Sutton, 1999). It is worth noting, however, that there are many types of policy analysis, for example studies of policy content, policy process and policy outputs, evaluations of policy impact, and action research/advocacy studies that seek to generate and apply data to promote a particular policy option (Ham and Hill, 1984). Policy research can also identify the more influential stakeholders, the impact of political and institutional factors, and how research findings are transferred into common knowledge (Weiss, 1982). Policy analysis also describes the context of policy making, such as the growing gap between the demand and supply of health resources, which has led to the common emphasis being placed on efficiency, health financing and priority setting [Ham, 1996;

World Health Organization (WHO), 1996]. The policy context for health priority setting, for example, has been mapped along five domains of equity, allocative efficiency, technical efficiency, community satisfaction and quality of care (Bobadilla, 1996).

In addition to the policy literature, our reflections presented in this paper draw upon our experience of consulting with policy makers on their use of research evidence in health promotion and public health. These consultations comprised of those conducted directly for the purpose of the paper (described below), as well as the discussions that we regularly conduct in our broader capacity as academic consultants [e.g. as Director of the Australian Centre for Health Promotion (M.W.) and in preparing a discussion paper on evidence-based public health for the National Public Health Partnership (L.R.) (http://www.dhs.vic.gov.au/nphp/ppi/evidence/isspaper/index.htm)].

The examples of common health promotion policy or operational goals that are used to examine question 1 were derived from a group discussion with six participants, and nine individual interviews (overlap = 2) with people in government advisory or managerial positions from the New South Wales Health Department (5 = state level and 2 = area level) and the Premiers' Department ($n = 2$). The interview participants were selected by word-of-mouth recommendation from managers in the NSW Health Promotion Branch. They identified people who were interested in the topic of evidence and who were a rich source of ideas about the relationship between research, policy and practice.

The participants were informed that the interviews would be used for the purpose of preparing a paper on advocating for evidence-based health promotion (seminar and written format), but assured that their individual contributions would remain confidential. Both authors conducted the group discussion and two interviews, and the remaining seven interviews were conducted by L.R. The interviews were not taped, but rather brief notes were taken during each discussion and longer summaries prepared immediately afterwards. We have received feed back at subsequent seminars from other health promotion and public health policy-makers that the information presented 'rings true'; we take full responsibility, however, for what is ultimately our interpretation of the discussions held.

In relation to question 2, we present our reflections as academics/researchers (and previous practitioners) who have collaborated with colleagues to advocate for the greater use of research evidence in health promotion policy and practice.

1. IS THE EVIDENCE THAT IS AVAILABLE ON THE EFFECTIVENESS OF INTERVENTIONS ACTUALLY RELEVANT AND USEFUL TO CURRENT POLICY AND PRACTICE CONTEXTS?

The international body of evaluation research on the effectiveness of health promotion and public health programs is growing. Increasingly, this evidence is freely accessible in critically appraised and summarised forms via the Internet, and examples of ongoing initiatives are listed in Table 1. Those advocating for evidence-based health promotion propose that this type of evidence is examined and taken into account when decisions about policy and practice are made. It is thus useful to consider the degree to which the evidence that is generated by the initiatives described in Table 1 is actually relevant and useful in current health promotion policy contexts.

SIX COMMON HEALTH PROMOTION POLICY AGENDAS

We asked our interview participants to describe their policy goals and operational priorities, and to discuss the use of evidence as a way of achieving these goals. From our discussion we identified six examples of health promotion policy goals that are commonly shared across different levels of jurisdiction governing the public health sector in New South Wales, Australia. These examples of common policy goals are summarised below.

For each identified goal we have considered the relative utility of the type of evidence that is promoted in the context of evidence-based health promotion. Our reflections integrate the following: (i) comments from our participants about their use of evidence in these policy contexts; (ii) citations to other literature; and (iii) our own views on the evidence available and its relevance to each agenda item.

Table 1: Examples of initiatives towards evidence-based health promotion and public health

Initiative	Website	Description
Cochrane Collaboration	www.cochrane.org	This has become a widely recognized source of systematic reviews of evidence on the effectiveness of health interventions (see website). When it was formed in the early 1990s, the Cochrane Collaboration focused on reviewing randomized controlled trials of a limited range of clinical treatments. The Collaboration now has ~60 review groups, 12 methods groups and 10 fields/networks that include areas such as child health, complementary medicine, health promotion and public health, primary health care, rehabilitation and related therapies and vaccines.
Cochrane Health Promotion and Public Health Field	www.vichealth.vic.gov.au/cochrane	The Cochrane Collaboration's *Health Promotion and Public Health Field*, which is now based in Australia, conducts reviews of evidence that include RCTs and observational studies of a diverse range of interventions and programs (see website).
Guide to Community Preventive Services	www.thecommunityguide.org	This is a series of evidence-based recommendations on population-based interventions. They are being compiled by an independent US task force along similar lines to the US Task Forces on Clinical Preventive Services (US Preventive Services Task Force, 1996), and the review methods used in the community guide have been described in Supplement 1 (2000) of the *American Journal of Preventive Medicine* (Supplement to the *American Journal of Preventive Medicine*, 2000). The guide's review topics include interventions targeting risk behaviours, infectious and chronic diseases, motor vehicle injury, violent and abusive behaviour, and the socio-cultural environment. Some reviews are already available (see website) and it is anticipated that all the remainder will be completed in 2003. Like the earlier recommendations for clinical preventive services [e.g. (Douketeis *et al*., 1999)], the guide will be updated periodically as new evidence becomes available.
NHS Centre for Reviews and Dissemination	www.york.ac.uk/inst/crd/wph.htm	In 2000, the UK-based NHS Centre for Reviews and Dissemination published evidence from systematic reviews of research relevant to implementing the 'Wider Public Health' agenda. This huge database of evidence includes topic areas such as cancer, coronary heart disease, accidents, mental health, education, social care and social welfare, and crime, drugs and alcohol.
International Union for Health Promotion and	www.iuhpe.nyu.edu/pubs	Also in 2000, the International Union for Health Promotion and Education published a report for the European Education Commission that assessed 20 years evidence of the health, social, economic and political impacts of health promotion. Research and practitioner experts collaborated with legislative and administrative policy-makers to formulate recommendations for action based on the reviews of evidence.
Campbell Collaboration	www.campbell.gse.upenn.edu	This is a recent initiative that aims to prepare, maintain and promote systematic reviews of studies on the effects of social and educational policies and practices. It was named after an American psychologist, Donald Campbell, who drew attention to the need for societies to assess more rigorously the effects of their social and educational interventions. Preliminary discussion papers are available online.

Policy goal 1: increase the proportion of health sector funding for primary prevention and health promotion (relative to treatment services)

Within the health system, the rhetoric of evidence-based health care is being translated into mainstream policy and practice. Policy-makers and managers participating in our discussions noted this development and its increasing influence on the health promotion and public health policy context. Given the emphasis on evidence-based decision-making, they acknowledged that the available evidence about the effectiveness of interventions has been valuable in supporting their bids for a greater share of health sector resources for health promotion/public health. It was also noted, however, that advocates for greater investment in clinical services were often advantaged by access to what is considered to be 'better' evidence, i.e. experimental research designs that demonstrate immediate-/short-term intervention outcomes. This type of evidence is perceived to be more compelling to the managers and accountants responsible for health sector budgets.

Policy goal 2: implement interventions that are proven to be effective and safe

Managers who are accountable for the implementation of health promotion have also found the available evidence useful, particularly when reviewing current activities as part of strategic planning. The evidence was also described as useful in situations where a health promotion/public health service manager needs to ensure that their service delivery budget is allocated to effective interventions for priority issues, and seeks to minimize politically motivated spending on interventions that have been ineffective or harmful in other settings.

Policy goal 3: implement programs that are efficient, feasible and politically acceptable

Evidence about the relative costs and benefits of health promotion interventions was considered highly valuable information to those making decisions in a policy setting. Unfortunately this evidence is often not yet available for many health promotion and public health interventions. Evaluation research also tends to leave out the descriptive and contextual details that are required by future decision-makers who need to assess the feasibility of repeating an intervention in their local setting (Rychetnik *et al*., 2002).

Perceptions of an intervention's political acceptability are highly context-dependent and the political issues that affect the likelihood of an intervention's success are rarely addressed in evaluation research. As a result, evidence on the effectiveness of health promotion initiatives that were conducted in other settings are often perceived as having limited value to those who are politically conscious. Policy-makers and managers usually determine the political feasibility and acceptability of an intervention in terms of local priorities and opportunities rather than published evidence.

Policy goal 4: address the social, economic and environmental determinants of health and inequities in health

Interventions to address social, economic and environmental determinants of health and to reduce inequities in health have been re-emerging as a significant focus for health promotion over the last decade (Turrell *et al*., 1999; Hyde, 2001; Sainsbury and Harris, 2002; NSW Department of Health, 2003). In this policy context, discussions about the type of evidence that is available to guide decisions on interventions have highlighted a potential conflict between goal 4 and goal 2 (to implement interventions that are known to be effective and safe).

In the latter part of the 20th century there has been far greater investment by health sectors and governments in programs to reduce behavioural risk factors for specific diseases, rather than contextual and structural determinants of health. As a result, those who seek to implement interventions that are proven to be effective and safe are inevitably more likely to find evaluations of programs targeting behavioural determinants of health (Gepkens and Gunning-Schepers, 1996).

Policy goal 5: conduct joint or collaborative programs between the health sector and other sectors of government, and with non-government sectors

Participants all reflected on the importance of collaboration between health and other sectors of government (and non-government) in order to achieve health promotion objectives. While rewarding when successful, such collaborations

were described as challenging to establish and maintain.

Difficulties with using the available evidence to pursue agenda item 5 related to issues of relevance and perceived benefits by others. Evidence that was couched only in health sector terms was not seen as a valuable leverage tool for promoting and implementing collaborative agendas. The feedback that has been received from those based outside the Department of Health is that the health sector tends to be rather territorial in terms of project ownership and the framing of project objectives (at both policy and program levels). The health sector has also been described as overly demanding in terms of imposing their evaluation protocols on others.

The willingness of non-health sectors to collaborate with the health sector is dependent on the participants' ability to negotiate mutually beneficial outcomes, feasible implementation strategies, and compatible monitoring and evaluation methods. The health-specific focus of most of the currently available evidence in health promotion databases is a limiting factor when negotiating collaborative interventions that are evidence-based.

Policy goal 6: encourage other sectors to adopt policies and programs that reinforce health sector-funded programs or that directly address socio-economic determinants of health

Employment, occupational status, income, housing and education are some of the determinants of health that are beyond the mandate or direct reach of the health sector (Alleyne *et al*., 2000). Policy goal 6 was identified by those discussants who conceived for the health sector an advocacy role to encourage other sectors to address the socio-economic determinants of health and to undertake activities that may reduce inequities in health [described by (Acheson, 1998; Kaplan and Lynch, 2001)].

As indicated above, reviews on the effectiveness of health-sector interventions have limited utility in negotiating with non-health sectors and presenting arguments that are convincing to their decision makers. There is greater mileage in using evidence that has addressed common objectives that are not exclusively related to health outcomes. For example, health advocates may support and invoke studies of labour productivity growth (a mandate of other sectors) in order to promote a health-related agenda (Davey Smith and Gordon, 2000).

2. WHAT IS THE RESEARCHER'S OR REVIEWER'S ROLE IN INTERPRETING THE AVAILABLE EVIDENCE AND ADVOCATING ACTION BASED ON THEIR INTERPRETATIONS?

Policy makers participating in our discussions tended to use the term evidence to mean information in general, rather than research-based findings in particular. Evidence for policy making was described as information that comes in various formats and from many sources, including routine health service data, opinion polls and the media. In addition, even potentially useful journal articles and research summaries tend to be engulfed in a daily tidal wave of memos, directives, proposals, submissions, briefings and other general information that pass across government policy-makers' desks every day.

An important message from both the literature and our own discussions with policy makers is that research findings will rarely speak for themselves. Health promotion advocates who are experienced lobbyists, regular policy advisors or policy makers themselves all live and breathe this principle (Chapman, 2001). Yet participants in our discussions commented on the reluctance of academics to communicate the practical implications of their research, and the reluctance of reviewers of evidence to identify the policy implications of evidence summaries. This led us to reflect on the researchers' role in interpreting evidence and to advocate for action based on their interpretations.

It is probable that some researchers consider the production of a scientific review of the evidence as the fulfilment of their responsibility in promoting evidence-based health promotion. Indeed many of us do hesitate about communicating our views on the implications of the evidence, let alone actually getting involved in public lobbying for particular policies and programs. Based on our experience of working in a scientific academic setting, we hypothesize that such reticence may be attributed to the following.

- Adherence to scientific conservatism, i.e. interpreting research in terms of social change often requires extrapolation beyond the 'demonstrated facts'.

- Concerns about maintaining one's credibility as an objective or independent researcher and commentator, i.e. supporting particular policy options in a controversial area may create appearances of partisanship.
- Lack of training and experience in social and political science, i.e. public health tertiary training often focuses on the scientific and technical aspects of conducting research, rather than how to develop and influence health and public policy and practice.

While policy makers may perceive researchers to be poor advocates for evidence-based policies, the notion that researchers or reviewers should merely summarise 'facts' has been strongly challenged within the health promotion research community. Indeed many have explicitly stated that researchers cannot avoid policy recommendations, and have promoted advocacy and direct action as a core function of the researcher's role (Labonte, 1999; Marceau, 2000; Wise, 2001). Paradoxically, our discussants also bemoaned that when researchers do make policy recommendations, they are often too idealistic or 'purist' in their stance and do not take into account the practical and political realities of the policy setting.

This highlights a key challenge faced by researchers in relation to interpreting evidence and advocating evidence-based policy options. How do we interpret and promote the evidence for policy settings so that our conclusions are not discarded as naïve or unrealistic, while retaining the integrity of a scientific and academic perspective (Rychetnik, 2001) on the credibility and utility of that evidence? This is important because researchers' opinions are often sought because they are perceived to be independent of the machinations that occur between competing policy stakeholders, and thus untainted by the politics of policy development (Sommer, 2001).

In reality, there is disagreement among scientific colleagues about the degree to which researchers should participate in the political fray of policy recommendations. This was illustrated in June 2000 by postings to an international e-mail discussion-list (evidence-based health at www.jiscmail.ac.uk), from which we have selected a few illustrative quotes (below). These postings followed the release of evidence-based recommendations by the UK National Institute of Clinical Excellence (NICE) against beta-interferon being funded for Multiple Sclerosis by the National Health Service (Mayor, 2001). The recommendation from NICE led to significant community and media controversy that revealed strong and diverse opinions about what is expected from 'evidence-based' organizations.

> . . . instead of telling us whether beta-interferon works or not, NICE is in fact making a judgement whether the health service can afford a treatment which does appear to work to some degree. NICE has therefore taken on the role of rationer and in my view risks losing its credibility as impartial assessors of clinical excellence. NICE has become a National Institute of Clinical Affordability rather than Excellence. (Posting to evidence-based health e-mail discussion list, June 2000.)

NICE was criticised for going beyond technical or scientific judgements and for straying into the policy arena by recommending a particular mode of action. Conversely, NICE was also criticised for being poor social advocates and for failing to frame, position and communicate their message adequately.

> Human beings need messages that work for them and it is for the provider (in this case NICE) to treat the recipients of its conclusions like customers and pay them the respect of couching their (objective) messages in human terms. I don't think it is good enough for them to behave merely like a bunch of scientists. . . . (Posting to evidence-based health e-mail discussion list, June 2000.)

Clearly, finding an acceptable balance between 'scientific' and 'value' judgements is an ongoing challenge faced by researchers and their institutions. Inevitably, the degree and type of participation in a policy community that is adopted by researchers/reviewers of evidence will continue to vary, not least when proponents of evidence are reminded how important it is to differentiate between 'honest scientific challenge' and 'evident vested interest' (Rosenstock and Lore Jackson, 2002).

SUGGESTION FOR A WAY FORWARD: THE 'EVIDENCE-AGENDA MAP'

The negotiated nature of both public policy and of the concept of evidence means that one can not expect policy development to become a 'scientific', 'rational' or 'objective' process, even when it is evidence-based (Lindblom, 1959; Davis and Howden-Chapman, 1996; Black, 2001).

Policy research clearly indicates that scientific evidence will always be collected and used in policy settings like any other type information: to argue prevailing agendas and justify ideological positions (Weiss, 1979; Tesh, 1988; Florio and DeMartini, 1993; Bero, 2003). Plus, advocacy for evidence-based policy is more likely to be effective if it can coalesce with existing policy 'windows of opportunity', such as those that occur when a topic captures the attention of politicians or bureaucrats after a focusing event, or when there is new government, a change in the balance of power or a shift in national mood (Weissert and Weissert, 1996).

It is also apparent that although researchers cannot predict or control the way their evidence will be interpreted and used, they can influence policy outcomes if they engage with the policy community as a stakeholder or via other stakeholders (Sauerborn *et al.*, 1999). Advocates of evidence-based health promotion, however, will still be inclined to align the degree to which they engage in public health advocacy—which is 'unashamedly purposive in its intent' (Chapman, 2001)—to the strength of the evidence on the benefits and harms of their proposed interventions.

We conclude this paper by proposing a policy and practice 'evidence-agenda map' (Table 2). Our aim is to assist advocates of evidence-based policy and practice to explicitly link their policy goals, i.e. the policy/operational directions they seek to influence (Table 2, columns A–C), to the required evidence (Table 2, rows 1–5). The cross-tabulation boxes (Table 2, body) are completed by identifying the evidence that is actually available, with some assessment of the strengths and weaknesses of that evidence.

Different groups in different contexts will identify different health promotion agendas. For illustration only, we have selected three common health promotion goals that apply to many areas of health promotion: (A) modifying relevant behaviours and lifestyle factors; (B) improving the social, economic and environmental determinants of health; and (C) reducing existing and future inequities.

The types of evidence that may be sought to support evidence-based health promotion includes the following: (1) evidence on the magnitude and aetiology of health problems; (2) evidence on the effectiveness of local health promotion interventions; (3) evidence of the impact of public policy initiatives or the dissemination of programs to larger populations; (4) evidence required by health promotion advocates to mobilize change in other (non-health) government and non-government sectors; and (5) evidence of the cost-effectiveness of initiatives.

The 'evidence-agenda map' can assist advocates of evidence-based health promotion to adopt a strategic approach when identifying the evidence that is required and the evidence that is actually available. It may also facilitate policy makers themselves to map their policy goals against their internal requirements for evidence, either as a basis for commissioning evidence reviews/summaries or, if the available evidence is inadequate, to pursue funding for surveillance/monitoring systems or targeted evaluation research.

In using the evidence-agenda map, advocates will often find there is ample evidence on the aetiology and magnitude of health problems and on the inequities in health (Table 2, cells 1A, 1B and 1C). Examination of the evidence databases identified in Table 1 demonstrate that there is also a growing body of evidence on the effectiveness of interventions aimed at modifying behavioural risk factors (Table 2, cells 2A and 3A). To date, however, there is less or weaker evidence of the effectiveness and cost-effectiveness of initiatives to improve social, economic and environmental determinants of the health of populations (Table 2, cells 2B, 3B and 5B), and still less evidence on the effectiveness and cost-effectiveness of interventions to reduce inequities in health (cells 2C, 3C and 5C). To address the social determinants of health and ultimately to reduce inequalities in health, there is a need for evidence to support intersectoral action. For this purpose, evidence is required that is credible both within the health sector (to account for their initiatives internally) and convincing to non-health (external) collaborators (Table 2, cells 4A, 4B and 4C). This latter type of evidence is often the most challenging to obtain from the mainstream health promotion databases.

Finally, it is worth noting that although the 'evidence-agenda map' may be a useful planning tool, it is not intended as a checklist where every box must be ticked before advocates of evidence can engage in the policy process. It is unlikely that many policy goals will be supported by a full spectrum of high quality evidence. The greatest challenge for those who advocate evidence-based health promotion probably exists when they

Table 2: An example of an evidence-agenda map for evidence-based health promotion policy and practice

Required evidence	Health promotion agendas		
	A. Modifying relevant behaviours and lifestyle risk factors	B. Improving the social, economic and environmental determinants of health	C. Reducing health inequities
1. Research on the magnitude and aetiology of the health problem/issue	Appraisal of the relevant available evidence (1A)	Appraisal of the relevant available evidence (1B)	Appraisal of the relevant available evidence (1C)
2. Evidence of the effectiveness of local health promotion programs	Appraisal of the relevant available evidence (2A)	Appraisal of the relevant available evidence (2B)	Appraisal of the relevant available evidence (2C)
3. Evidence of the demonstrated impact of health policy initiatives or implementation of a program across large populations	Appraisal of the relevant available evidence (3A)	Appraisal of the relevant available evidence (3B)	Appraisal of the relevant available evidence (3C)
4. Evidence required by health promotion advocates to mobilize change outside the health sector	Appraisal of the relevant available evidence (4A)	Appraisal of the relevant available evidence (4B)	Appraisal of the relevant available evidence (4C)
5. Evidence of the cost-effectiveness of proposed initiatives	Appraisal of the relevant available evidence (5A)	Appraisal of the relevant available evidence (5B)	Appraisal of the relevant available evidence (5C)

identify important health promotion goals (e.g. based on evidence of need) for which the evidence to support intervention is either unavailable or inadequate. It has been suggested that there may be value in considering whether it is feasible to generate better evidence, or whether the available evidence is the best that can be expected in the prevailing circumstances. [The suggestion that when evaluating evidence one could compare the available evidence with that which can be potentially and feasibly obtained was suggested by Associate Professor James Harrison of the National Injury Surveillance Unit, Flinders University, Australia (Personal communication, 2001).] Such an analysis can assist advocates of evidence-based practice to weigh whether to lobby for better research or whether to pursue their policy and practice goals despite the limited evidence available.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge support from the Health Promotion Branch (now the Centre for Health Promotion) of the NSW Department of Health for the interview component of this work. However, the views and opinions expressed in this paper are solely those of the authors.

Address for correspondence:
Dr Lucie Rychetnik
Sydney Health Projects Group
School of Public Health
Victor Coppleson Building, D02
University of Sydney
NSW 2006
Australia
E-mail: lucier@med.usyd.edu.au

REFERENCES

Acheson, D. (1998) *Independent Inquiry into Inequalities in Health* (report). Stationary Office, London.

Alleyne, G. A. O., Casas, J. A. and Castillo-Salgado, C. (2000) Equality, equity: why bother. In: Round Table Discussion. *Bulletin of the World Health Organization*, **78**, 75–85.

Altenstetter, C. (1987) The political, economic and institutional prerequisites of legislation and planning in support of health promotion. In Abelin, T., Brzezinski, Z. J. and Carstairs, V. C. L. (eds) *Measurement in Health Promotion and Protection*. European Series No. 22 (sponsored by the WHO and the International Epidemiological Association). WHO Regional Publications, Copenhagen.

Barratt, A. and Bates, P. W. (1997) O tell me the truth about evidence (editorial). *Australian and New Zealand Journal of Public Health*, **21**, 441–443.

Bero, L. (2003) *Everything but the Evidence: Factors Influencing Policy Decisions*. Conference paper presented at the *Aspects of Evidence* symposium in Melbourne, Australia (available online at http://www.cochrane.org.au/aspects/aspects.htm).

Black, N. (2001) Evidence based policy: proceed with care. *British Medical Journal*, **323**, 275–279.

Bobadilla, J. L. (1996) Priority setting and cost effectiveness. In Janovsky, K. (ed.) *Health Policy and Systems Development: an Agenda for Research*. WHO, Geneva, pp. 43–60.

Briss, P. A., Zaza, S., Pappaioanou, M. *et al*. (2000) Developing an evidence-based guide to community preventive services—methods. *American Journal of Preventive Medicine*, **18 Suppl. 1**, 35–43.

Chan, J. J. and Chan, J. E. (2000) Medicine for the millennium: the challenge of postmodernism. *Medical Journal of Australia*, **17**, 332–334.

Chapman, S. (2001) Advocacy in public health: roles and challenges. *International Journal of Epidemiology*, **30**, 1226–1232.

Davey Smith, G. and Gordon, D. (2000) Poverty across the life-course and health. In Pantazis, C. and Gordon, D. (eds) *Tackling Inequalities; Where are we Now and What can be Done*? The Policy Press, Bristol.

Davis, P. and Howden-Chapman, P. (1996) Translating research findings into health policy. *Social Science and Medicine*, **43**, 865–872.

Douketis, J. D., Feightner, J. W., Attia, J. and Feldman, W. F. (1999) Periodic health examination, 1999 update: 1. Detection, prevention and treatment of obesity. *Canadian Medical Association Journal*, **160**, 513–525.

Evidence-based Medicine Working Group (1992) Evidence-based medicine: a new approach to teaching the practice of medicine. *Journal of the American Medical Association*, **268**, 2420–2425.

Florin, D. (1996) Barriers to evidence based policy. *British Medical Journal*, **313**, 894–895.

Florio, E. and DeMartini, J. (1993) The use of information by policy makers at the local community level. *Knowledge: Creation, Diffusion, Utilization*, **15**, 106–123.

Gepkens, A. and Gunning-Schepers, L. J. (1996) Interventions to reduce socioeconomic health differences: a review of the international literature. *European Journal of Public Health*, **6**, 218–226.

Griffiths, R., Craze, L., Fernandez, R., Langdon, R. and Gentles, L. (2001) *Health and Equity: A Targeted Literature Review*. South Western Sydney Area Health Service and University of Western Sydney.

Gwatkin, D. R. (2000) Health inequalities and the health of the poor: what do we know? What can we do? *Bulletin of the World Health Organization*, **78**, 3–18.

Ham, C. (1996) Priority setting in health. In Janovsky, K. (ed.) *Health Policy and Systems Development: an Agenda for Research*. WHO, Geneva, pp. 25–41.

Ham, C. and Hill, M. (1984) The policy process in the modern capitalist state. Wheatsheaf Books, Sussex.

Ham, C., Hunter, D. J. and Robinson, R. (1995) Evidence based policymaking. *British Medical Journal*, **310**, 71–72.

Heller, R. F. and Page, J. (2002) A population perspective to evidence based medicine: 'evidence for population health'. *Journal of Epidemiology and Community Health*, **56**, 45–47.

Hyde, J. (2001) Tackling health inequalities in the NSW health system: the NSW Health and Equity statement. *NSW Public Health Bulletin*, **12**, 192–193.

Jordan, A. G. and Richardson, J. J. (1987) British politics and the policy process: an arena approach. Allen and Unwin, London.

Kaplan, G. A. and Lynch, J. W. (2001) Is economic policy health policy? *British Medical Journal*, **91**, 351–353.

Klein, R. (2000) From evidence-based medicine to evidence-based policy? *Journal of Health Services and Research Policy*, **5**, 65–66.

Krieger, N. (1992) The making of public health data: paradigms, politics, and policy. *Journal of Public Health Policy*, **13**, 412–427.

Labonte, R. (1999) Health promotion in the near future; remembrances of activism past. *Health Education Journal*, **58**, 365–377.

Lindblom, C. E. (1959) The science of 'muddling through'. *Public Administration Review*, **19**, 79–88.

Linquist, E. (1991) *Public Managers and Policy Communities: Learning to Meet New Challenges*. Canadian Centre for Management Development, University of Toronto.

Mackenbach, J. P. (2003) Tackling inequalities in health: the need for building a systematic evidence base. *Journal of Epidemiology and Community Health*, **57**, 162.

Marceau, L. D. (2000) Upstream public health policy: lessons from the battle of tobacco. *International Journal of Health Services*, **30**, 49–69.

Marmot, M. (1999) The solid facts: the social determinants of health. *Health Promotion Journal of Australia*, **9**, 133–139.

Marmot, M. and Wilkinson, R. G. (1999) *Social Determinants of Health*. Oxford University Press, Oxford.

Mayor, S. (2001) Health department to fund interferon beta despite institute's ruling. *British Medical Journal*, **323**, 1087.

McQueen, D. V. (2001) Strengthening the evidence base for health promotion. *Health Promotion International*, **11**, 261–268.

NSW Department of Health (2003) *Health People 2005* (available online at http://www.asnsw.health.nsw.gov.au/health-public-affairs/publications/healthyppl/).

Orosz, E. (1994) The impact of social science research on health policy. *Social Science and Medicine*, **39**, 1287–1293.

Peterson, A. and Lupton, D. (1996) *The New Public Health; Health and Self in the Age of Risk*. Sage Publications, NSW.

Rosenstock, L. and Lore Jackson, L. (2002) Attacks on science: the risks to evidence-based policy. *American Journal of Public Health*, **92**, 14–18.

Rychetnik, L. (2001) *Matters of Judgment: Concepts of Evidence Among Teachers of Medicine and Public Health*. PhD Thesis, Department of Public Health and Community Medicine, Faculty of Medicine, University of Sydney.

Rychetnik, L., Frommer, M., Hawe, P. and Shiell, A. (2002) Criteria for evaluating evidence on public health interventions. *Journal of Epidemiology and Community Health*, **56**, 119–127.

Sainsbury, P. and Harris, E. (2002) Understanding the causes of health inequalities: incorporating personal, local, national and global perspectives. *NSW Public Health Bulletin*, **13**, 121–123.

Sauerborn, R., Nitayarumphong, S. and Gerhardus, A. (1999) Strategies to enhance the use of health systems research for health sector reforms. *Tropical Medicine and International Health*, **4**, 827–835.

Sommer, A. (2001) How public health policy is created: scientific process and political reality. *American Journal of Epidemiology*, **154 Suppl.**, S4–S6.

Sorensen, G., Emmons, K., Hunt, M. K. and Johnston, D. (1998) Implications of the results of community intervention trials. *Annual Review of Public Health*, **19**, 379–416.

Sutton, R. (1999) *The Policy Process: an Overview*. Working Paper 118. Overseas Development Institute, London (available online http://www.odi.org.uk/publications/working_papers/).

Tesh, S. N. (1988) *Hidden Arguments: Political Ideology and Disease Prevention Policy*. Rutgers University Press, New Jersey.

Turrell, G., Oldenburg, B., McGuffog, I. and Dent, R. (1999) *Socioeconomic Determinants of Health: Towards a National Research Program and a Policy and Intervention Agenda*. Queensland University of Technology and Health Inequalities Research Collaboration, Commonwealth Department of Health and Aged Care, AusInfo, Canberra.

US Preventive Services Task Force (1996) *Guide to Clinical Preventive Services*, 2nd edition. Williams and Wilkins, Baltimore, MD.

Walshe, K. (2001) Evidence based policy: don't be timid. *British Medical Journal*, **323**, 1187.

Weiss, C. (1979) The many meanings of research utilization. *Administration Review*, **39**, 426–431.

Weiss, C. (1982) Policy research in the context of diffuse decision making. In Rist, R. C. (ed.) *Policy Studies Annual Review*. Sage Publications, Beverly Hills, CA.

Weissert, C. S. and Weissert, W. G. (1996) *Governing Health: the Politics of Health Policy*. John Hopkins University Press, Baltimore, MD, p. 226.

Willis, E. (2002) Interest groups and the market model. In Gardner, H. and Barraclough, S. (eds) *Health Policy in Australia*, 2nd ed. Oxford University Press, Melbourne.

Wise, M. (2001) Taking responsibility to redress inequalities in health. *NSW Public Health Bulletin*, **12**, 186–189.

WHO (1996) Ad Hoc Committee on Health Research Related to Future Intervention Options. Investing in Health Research and Development. WHO Document, TDR/Gen/96.1, Geneva.