

Health Impact Assessment: a tool for Healthy Public Policy

JOHN KEMM

*NHS Executive West Midlands, Bartholemew House, 142 Hagley Road,
Birmingham B16 9PA, UK*

SUMMARY

Healthy Public Policy is one of the key health promotion actions. Advancement of Healthy Public Policy requires that the health consequences of policy should be correctly foreseen and that the policy process should be influenced so that those health consequences are considered. Health Impact Assessment is an approach that could assist in meeting both requirements. Policies often produce health impacts by multiple indirect routes, which makes prediction difficult. Prediction in Health Impact Assessment may be based on epidemiological models or on sociological

disciplines. Health Impact Assessment must be based on an understanding of, and aim to add value to, the policy-making process. It must therefore conform to policy-making timetables, present information in a form that is policy relevant and fit the administrative structures of policy makers. Health Impact Assessment may be used to inform health advocacy but is distinct from it. There is a danger that Health Impact Assessment could be misunderstood as health imperialism.

Key words: Health Impact Assessment; Healthy Public Policy

HEALTHY PUBLIC POLICY

The Ottawa Charter (WHO, 1986) identified Healthy Public Policy as one of five key health promotion actions. A Healthy Public Policy is a policy that increases the health and well-being of those individuals and communities that it affects. Milio argued that public policy should set a framework within which individuals and communities were enabled to take control of their own health and well-being (Milio, 1986). Healthy Public Policy might be conceived of as favourably influencing the determinants of health at the higher levels described by Whitehead (Whitehead, 1995). These levels are general socio-economic, cultural and environmental conditions, living and working conditions, and social and community influences. Individual lifestyle factors together with age, sex and heredity also determine health but are less important than the higher level determinants (Evans *et al.*, 1994; Marmot, 1998). Health

services, while important in determining the outcome of episodes of illness, are relatively unimportant in determining population health. It follows that virtually all aspects of public policy impact on health, and it is self-evidently desirable that all public policy should be Healthy Public Policy.

The notion of health, promoted by advocates of Healthy Public Policy, is a broad one. Both equity and sustainability would be regarded as necessary conditions for health. Inequity is both bad *per se* and is a mechanism through which the health of individuals and communities is damaged. It is therefore appropriate that reduction of health inequalities is advocated as an essential feature of Healthy Public Policy in WHO Health 21 targets number 1 and 2 (WHO Regional Office for Europe, 1999). Sustainability may be defined as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on

Environment and Development, 1988). Since Healthy Public Policy is concerned with the health of future, as well as present generations, it must be concerned with sustaining ecosystems, which support the well-being of human populations (Coles *et al.*, 1999).

PRODUCING HEALTHY PUBLIC POLICY

Healthy public policy is clearly desirable, but two conditions have to be satisfied if it is to be produced:

- the health consequences of different policy options have to be correctly predicted; and
- the policy process has to be influenced so that health consequences are considered.

Health Impact Assessment is an approach that could assist with meeting both these prerequisites.

Health Impact Assessment may be defined as ‘a methodology which enables the identification, prediction and evaluation of the likely changes in health risk, both positive and negative (single or collective) of a policy programme, plan or development action on a defined population. These changes may be direct and immediate or indirect and delayed’ (Morgan, 1998). Its purpose is to add value to the decision-making process (National Assembly for Wales, 1999). It aims to assist decision makers by clarifying the various ways in which a policy could influence health and by ensuring that health considerations are not overlooked. Health Impact Assessment is primarily concerned with policies in non-health sectors such as economic, housing, law and order, transport, energy and many others since these are the areas that have the greatest potential to impact on population health (Lock, 2000). Health Impact Assessment can also add to policies with an overtly health objective (such as increasing taxes on tobacco) by exploring the indirect health consequences, which would flow from them. Some definitions of Health Impact Assessment specifically exclude consideration of policies in the health sector, but this is neither necessary nor helpful.

While the development of Health Impact Assessment has been strongly influenced by Environmental Impact Assessment (Joffe and Sutcliffe, 1997), the Healthy Public Policy movement has played an equally important role

in shaping its growth. In the introduction to ‘Promoting health through public policy’, Milio wrote:

The health interests of Americans will be better served if the impacts of policies, affecting health important aspects of environments and patterns of living, were assessed (Milio, 1986).

Her notion that the question of how policies would impact on health had to be considered became an implicit part of all subsequent discussion of Healthy Public Policy.

The term Health Impact Assessment is relatively new but the ideas underlying it are not. Policy makers have always intended outcomes for their policies and frequently those outcomes embraced improvement in the health and well-being of populations. It is common practice for decision-making bodies to require policy proposals to list the implications for one or more of the following: women, ethnic minority groups, people with disabilities, children, the environment and so on. These are all examples of limited impact assessment. Interest in the consequences of policy is not new, but Health Impact Assessment should make the exploration of these consequences more systematic.

THE HEALTH CONSEQUENCES OF POLICY

Healthy Public Policy has been defined as a policy that ‘is characterized by an explicit concern for health and equity in all areas of policy and an accountability for health impact’ (WHO, 1988), but concern is of little use unless the health impacts of the policy can be correctly foreseen. Prediction of consequences is frequently contentious. No policy proponent argues that their policy proposal is unhealthy, and most claim that their policy will, directly or indirectly, increase the overall well-being of the community. For most policies the influence on health is indirect, and often through several pathways that may act in conflicting directions. For example, closure of a factory may benefit health by reducing emission of pollutants and increasing the financial viability of competing producers, while at the same time damaging health by making the factory workforce unemployed. Such conflicting health consequences are features of most policies and require trade-offs to reach optimal decisions.

Numerous examples may be quoted of policies being both advocated and condemned on health grounds. Policies that increased wealth inequality have been defended on the grounds that all would benefit through 'trickle down', but more recent work has demonstrated that increasing inequality was more likely to damage health (Wilkinson, 1996). Economic adjustment policies may have beneficial effects of increasing macro-economic stability and growth, and encouraging better use of natural resources through pricing policies. These benefits have to be set against the harm of adverse effects on income distribution of vulnerable groups, resulting from greater reliance on market mechanisms (Warford, 1995). Policies to discourage smoking were initially opposed on the grounds that they would reduce exchequer income and thereby the ability to provide health and welfare services (Pollock, 1999). Reducing tobacco sales has been opposed on the grounds that it would increase unemployment but Godfrey *et al.* demonstrated that redirecting expenditure from tobacco to other goods was likely to increase employment (Godfrey *et al.*, 1995). Health Impact Assessment claims to assist policy making by identifying the different paths through which health may be benefited or harmed, and by estimating the balance of harm and benefit. By assessing the relative importance of impacts through different routes it provides information to help the trade-offs which are inherent in all policy making.

Policy making is complicated because the harmful and beneficial impacts usually fall on different groups. A new railway line may bring considerable health benefit to those who travel on it or send their products along it, but those who live close to it and suffer increased noise may experience only harm. At the very least, utilization of resources for one purpose means that those resources cannot be used for another purpose, which might have benefited a different section of the community (Drummond and Stoddart, 1995). Adequate Health Impact Assessment describes not only the nature and size of health impacts but also the sectors of the community on which each impact falls. It thus offers guidance on how policies may be expected to increase or decrease health inequalities. Some have called for the development of a separate Health Inequalities Impact Assessment (Acheson, 1998; Lester *et al.*, 1999), but it is difficult to think what should be in such an assessment that should not also be in a Health Impact Assessment.

EVIDENCE FOR PREDICTION

The prediction in Health Impact Assessment must be evidence based. Predictions are widely used to inform decision making in other fields. Economists predict, with varying degrees of accuracy, the effect of fiscal measures on trade and economic well-being, and the effect of price and income on sales of products such as cigarettes and alcoholic beverages. Climatologists predict the effect of energy policy on future climatic conditions. Transport planners predict the effect of road and railway developments on traffic, mobility and quality of life. Urban planners predict the effect of the built environment on quality of life for urban residents. Risk assessment engineers predict the likelihood of catastrophic events in safety-critical structures such as aeroplanes, chemical plants and atomic power stations.

The epidemiological model of exposure level and dose-response curve (USEPA, 1993) has been used extensively to predict the effects of chemical and physical agents on selected health outcomes. The range of outcomes (death, physical disease) to which this approach has been applied is limited, but there is no theoretical reason why it should not be extended to other outcomes and other agents. The model could be applied to outcomes that are highly relevant to Healthy Public Policy such as mental distress and even positive health and well-being. Equally, determinants of health such as unemployment, social networks and housing quality could be covered in these models as well as the physico-chemical agents. Epidemiological models have already been used to predict the future incidence of selected diseases such as mesothelioma in European countries (Peto *et al.*, 1999), cardiovascular disease (Gunning-Schepers, 1999) or the future mortality from different diseases across the world (Murray and Lopez, 1997).

The foregoing approaches, which may be categorized as 'tight focus', are not the only types of evidence available, and another type, which may be categorized as 'broad focus', has to be considered (Kemmer, 2000). Reliance on either approach to the exclusion of the other is likely to produce an incomplete and misleading assessment. Evidence from interviews with key informants, focus groups, opinion surveys and other ways of tapping informal knowledge should be used to produce better Health Impact Assessment. Policy analysts may not be able to describe system behaviour with equations, but

can base predictions on experience of similar policies in comparable settings. However, teasing out the connections between interventions and their sequelae (note sequelae are not necessarily consequences) is notoriously difficult (Chapman, 1993). Where there are no precedents, predictions may be based on theory derived from observation and experience. Scenario modelling is another approach by which the future consequences of policies may be predicted (Ziglio, 1986). Policy impact assessment, like policy evaluation (Fischer, 1995), has to take place at several levels. Epidemiology is a particularly powerful tool at the level of verification, which uses technical and analytical approaches to determine the probability that the policy will achieve its stated objectives. Other disciplines have more to offer at the higher discourse levels of impact analysis to answer questions such as will the policy objectives be relevant to the problem (situational validation), will the policy have instrumental value for the health of society as a whole (societal vindication) and will the fundamental ideology of the policy be compatible with health (social choice)?

All approaches have in common that predictions are based on knowledge of, and extrapolation from, previous events. Information on the web of causation and the size and direction of different impacts can be derived from studying the consequences of decisions, which have already been implemented, or events, which have already occurred. This gives better understanding of how systems react, which can be used to make better predictions for future policy. The study of consequences of policies that have been implemented is usually referred to as retrospective Health Impact Assessment, although it could equally be described as an evaluation, despite the claims of some (Milner and Marples, 1997) that these are distinct activities.

All prediction involves uncertainty and policy makers need to be informed of the confidence that they can attach to predictions. Some types of uncertainty are clearly understood and can be precisely defined (for example when a 95% confidence limit is stated for a predicted mortality rate). Other types of uncertainty, such as whether a particular factor is causally linked to a particular health outcome or whether one population will react similarly to another, can only be described on crude ordinal scales (very certain, fairly certain, fairly uncertain, very uncertain). Frequently, one is concerned with the indirect consequences

of policy, where the unpredictability of complex systems and chaos theory suggest that any predictions will be very uncertain.

INFLUENCING THE POLICY PROCESS

If health promoters are to influence policy making and if Health Impact Assessment is to be of use to policy makers, one has to understand the nature of the policy-making process. Definitions of policy are elusive. De Leeuw (De Leeuw, 1989) quotes Blum's definition of policy as:

A long term, continuously used, standing decision by which more specific proposals are judged for acceptability in terms of means to be employed, ends to be pursued and time frame in which these proposals will have to fit.

Ham (Ham, 1993) suggests that policy is even more diffuse, and says:

A policy ... consists of a web of decisions and actions that allocate ... values.

He notes that policies arise from a web of decisions and actions rather than a single decision, that decision without action does not make a policy, and that non-decision making and inaction are often important in policy genesis. It is therefore unsurprising that policy formulation is rarely a simple rational deductive process in which a series of sequential steps are taken to attain a given objective. Much more often policy formulation is incremental, consisting of no more than marginal adjustments to existing policies and structures. These adjustments are limited to what is deemed possible on the basis of value judgements and careful negotiations with interested parties. Sometimes both rational-deductive and incremental elements can be identified in policy making. Health Impact Assessment can contribute to both rational-deductive and incremental approaches.

The timing of Health Impact Assessment has been widely discussed in relation to projects and the importance of early involvement is emphasized (WHO European Centre for Health Policy, 1999). However, since most policy making is incremental or cyclical, there is no obvious point for Health Impact Assessment to begin and no obvious point for the assessment report to be considered. The Health Impact Assessment

process needs to be integral with the policy-making process. Like the policy it seeks to influence, Health Impact Assessment needs to be incremental, concerned with the relative advantages and disadvantages of minor policy adjustments rather than with fundamental changes, which are not deemed to be politically possible. Putters describes a system in the Netherlands where the Health Impact Assessment and the policy process are closely integrated (Putters, 1997). He notes how Health Impact Assessment, simply by increasing awareness of health, can change the policy-making process. An ideal state might be for the policy proponent to own the Health Impact Assessment and, except in cases of unusual complexity, perform it themselves. This contrasts with the current situation in Environmental Impact Assessment where the project proponent and the regulatory authority are distinct and sometimes adversarial. If those making Health Impact Assessments are to contribute to the policy-making process they must understand the policy maker's values. Assessments must conform to the policy-making timetable, furnish information in a form that is policy relevant (Milio, 1988) and fit the administrative structures of the policy makers.

The development of Healthy Public Policy needs to be informed by research in two areas. These have been characterized as research for public policy (applied policy research) and research of public policy (academic policy research) (O'Neil and Pederson, 1992). The former is needed to improve ability to predict consequences and so correctly distinguish Healthy Public Policy from less healthy public policy. The latter is needed to give better understanding of how policies are made and the ways in which analysis of health impacts could be made most useful to policy makers.

More material for research of public policy is sorely needed. The assessment of the EU Common Agricultural Policy (Dahlgren *et al.*, 1996) is the only example of a Health Impact Assessment of a specific policy, published in English, known to the author. In contrast, there have been numerous examples of reviews of general policy areas and of Health Impact Assessments of projects. Where groups have reviewed policies in isolation from the policy-making bodies, it is difficult to know how influential their assessments have been. There may be instances of Health Impact Assessments that were highly influential in modifying specific policies, but have not been published.

HEALTH ADVOCACY

Public health advocacy has been defined as the process of overcoming major structural barriers to public health goals (Chapman and Lupton, 1994). It usually works by influencing and then expressing public opinion, and so shaping policy maker's judgements as to what is politically possible or popular. Health advocacy needs to be informed by Health Impact Assessment, which supplies the evidence that advocates can use to argue that the measures they favour will produce beneficial consequences. The practice of Health Impact Assessment creates a favourable climate for health advocacy by putting health high on the agenda and encouraging an open and participative process. However there is tension between Health Impact Assessment, which seeks to make an impartial assessment of the health consequences of different policy options, and health advocacy, which is usually committed to one option.

The assessment of the EU Common Agricultural Policy (Dahlgren *et al.*, 1996) may be an example of the use of Health Impact Assessment in advocacy. Although the report was commissioned by the Swedish Ministry of Health and Social Affairs it seems more likely to have influenced the policy makers indirectly, by informing public opinion, than to have had a direct effect.

HEALTH IMPERIALISM

The WHO definition of health has been criticized as embracing all human activity (Seedhouse, 1997; Siracci, 1997) and Health Impact Assessment may be misinterpreted as an attempt to make all policy areas subordinate to health. The wording of the Ottawa Charter that

health promotion ... puts health on the agenda of policy makers in all sectors and all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health

may reinforce such fears. Policy makers have to satisfy many policy goals including political, economic and social aims. Government is increasingly concerned that its different policy initiatives should be integrated. There may be calls to analyse policies for their impact on many other issues that cut across the interests of several ministries such as the economy, law and

order, children, drugs and so on. While reframing economic and social goals as determinants of health may not alter the policy task, it can disturb the balance of influence between branches of the policy-making organization. It is possible that health promoters could advance their cause more easily if Health Impact Assessment were given a name such as overall policy appraisal, which would not be seen to imply territorial claims.

CONCLUSION

Health promoters are eager to identify policies that will promote the health and well-being of the community and to promote the adoption of such policies. Health Impact Analysis purports to be a tool that can help with both these tasks. It shows promise, but will have to be developed further before it becomes really useful.

Address for correspondence:

John Kemm
Health Impact Assessment Unit
Welsh Combined Centres for Public Health
Ffynnon Las
Ty Glas Avenue
Llanishen
Cardiff CF14 5EZ
UK

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