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Performance indicators and health promotion targets

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DISCUSSION PAPER 150

PERFORMANCE INDICATORS AND HEALTH PROMOTION TARGETS

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PREFACE

The research presented in this discussion paper is based on a report commissioned in 1994 by the Health Education Authority (HEA) from the Centre for Health Economics (CHE) as part of a larger project monitoring the contribution of health promotion to the achievement of Health of the Nation targets. This project has several strands including: assessing the feasibility of setting health promotion performance indicators; developing monitoring frameworks to assess the success of health promotion in reaching targets; analysis of HEA health and lifestyle surveys to assess the possibilities of using these as interim monitoring measures towards the Health of the Nation targets; and a compilation of sources of more than 40 national health and lifestyle surveys to assess the extent and comparability of information collected from different sources. CHE was commissioned to conduct a review of relevant literature and assess the feasibility, problems and possible uses of health promotion performance indicators. This discussion paper has two functions. First, it summarises and updates the original report. Second, it discusses the conceptual and practical issues of introducing the right health promotion indicators, for the right purpose, into the NHS.

ABSTRACT

This paper discusses the usefulness of performance indicators in health promotion. Health promotion and target-setting in health have both risen to the fore in the light of the Health of the Nation White Paper. This coupled with increasing pressure on all sectors of health care to demonstrate their "value-for-money" have meant that health promotion activities are being scrutinised as never before. Performance indicators have been one suggested means of ensuring movement towards Health of the Nation targets and value-for-money in health promotion.

The paper outlines the uses to which performance indicators have been put elsewhere in the NHS and argues that they are unlikely to be directly transferrable to health promotion. Criteria for successful performance indicators in health promotion are outlined. However, it is doubtful whether these criteria will be fulfilled to any useful extent at present. The theory of health promotion is characterised by many different views of what is an appropriate outcome measure of any health promotion intervention and therefore what will be an appropriate performance indicator. Consensus in theory is needed before any consensus on what is most suitable to measure is reached. In addition, any outcomes from health promotion, by its very nature, are likely to become apparent only over long periods of time, if at all. This reduces the likelihood of attribution and the feasibility of assigning responsibility for meeting targets.

Nonetheless, there is some scope for performance indicators in health promotion and their use as an internal management tool and as mechanisms for reaching external micro and macro level health-related targets is discussed. A collection of suggested macro performance indicators from the Health Education Authority are evaluated according to the criteria developed earlier. It is argued that at present these do not qualify as performance indicators, although they are certainly useful as monitoring tools.

The paper concludes with priorities for further research in this area. Despite the emphasis on target-setting brought about by the Health of the Nation, knowledge and expertise in performance indicators for health promotion is lacking. This is a matter of urgent concern. There are many complex conceptual and practical problems which will influence the future role

and choice of performance indicators in health promotion. These range from the fundamental, differing views about the definition of health education and health promotion, to the practical, a lack of knowledge at the community level about how to start looking for indicators, and the technical, a lack of clear responsibility for meeting macro-level targets.

1 INTRODUCTION

Health promotion has enjoyed a high profile in the NHS since the publication of the *Health of the Nation* White Paper (Department of Health 1992). However, the health care sector has also seen an increasing focus on explicit value-for-money, cost containment and cost-effectiveness issues in health care. In a world of resource constraints and more explicit questioning of the outcomes and costs of any health care intervention, it is vital that health promotion demonstrates its value if it is to attract resources. The outcomes and costs of health promotion, therefore, need to be known. This has led to some research on the cost-effectiveness of health promotion. However, there is still a tangible lack of studies in this area and there are good practical reasons for this. Health promotion by definition is a complex multi-agency process. In most health care interventions a single agency is involved, outcome and cost are incurred in the same period and are therefore relatively easy to measure. In health promotion none of this is likely to be true. This will also affect the usefulness and validity of any performance indicators (PIs) that are derived for health promotion.

The term 'performance indicator' itself has a variety of shifting meanings. PIs have been used in the public organisation and economics literature as tools to meet specified efficiency targets, however defined, within firms and organisations. This is the way it has also been commonly used in relation to the NHS. However, translating the use of PIs to health promotion is not a straightforward task. Health promotion itself is a developing field and views about health promotion theory and its appropriate role will inform attitudes towards the use of performance indicators. PIs have also traditionally been geared towards increasing the internal efficiency of organisations. This may not be as relevant to bodies such as the Health Education Authority (HEA), where the main target is to enhance the external effects of its activities on the health, or knowledge of how to attain health, of the population. The traditional focus of PIs may have to be adapted towards external targets. PIs have also tended to be used in the public sector as a cross-sectional measure of institutional performance. The most obvious examples of this are the recent publication of hospital and school league tables. It is not immediately apparent how league tables of performance are relevant to the health promotion context. Nevertheless PIs have the potential for various possible uses in the evaluation of health promotion at both micro and macro

levels. This is particularly timely given the twin foci of health promotion and target setting in the Health of the Nation (Department of Health 1992). The realisation that health promotion should be an important focus of health policy in the UK and elsewhere brings with it a corresponding need for indicators that can be used to monitor the progress and performance of health promotion endeavours (Dean 1988). This implies more use for PIs in the longitudinal sense, the context of monitoring movement towards targets over time.

The remainder of this discussion paper is split into six sections. In section 2 the historical role of PIs as measures of comparative performance in the NHS is reviewed and several criticisms outlined. The history of health education and health promotion is traced in section 3 and the implications of different views about health promotion for the types of PIs that may be useful are discussed. The possible use of PIs are explored in more depth in section 4 and section 5 contains an assessment of their use in practice. Finally future research priorities surrounding the use and implementation of performance indicators for health promotion are considered in section 6.

2   THE HISTORY AND POLICY BACKGROUND OF PERFORMANCE INDICATORS IN THE NHS

Performance indicators are now a cornerstone of UK government policy towards the public sector. They have become widely known and used in relation to the Citizen's Charter initiative amongst Executive Agencies and local government (Audit Commission 1992, HM Treasury 1992). However, PIs have a longer history, first being introduced in local government in the early 1980s (Department of the Environment 1981) and then the NHS (Allen et al 1987). Their main role has been to increase control over public sector organisations (Smith 1990). More recently, high profile league tables of school and hospital performance have been published.

In 1983 the Parliamentary Secretary for Health introduced PIs into the NHS arguing that their use would play a vital role in improving efficiency. The value of PIs was seen in their use in enabling a comparison of performance across districts and as a means of internal management control. Although keen to point out the limitations of league tables any obvious discrepancies or variation in indicators between districts or regions were to be investigated further. In this sense

performance indicators were being employed in a mainly enabling role, allowing the comparison of activity for the first time across different districts and regions.

Allen et al (1987) were amongst the first to assess the actual success of PIs in the NHS. They investigated their use in three District Health Authorities (DHAs) and their over-arching Regional Health Authority (RHA). Typical PIs found were throughput, hospitalisation rates, number of beds per 1,000 catchment population, manpower levels, skill-mix and costs. The authors concluded that the early use of PIs could be criticised on four main counts:

1. Contrary to the rhetoric, they do not measure performance, rather the focus was on measuring inputs. They said nothing about output, the served population's health. Although the Treasury now states that final outputs, or health outcomes in the NHS, are important there is still an over-emphasis on inputs and intermediate outputs (HM Treasury 1992).

2. Comparative league tables do not compare like-with-like. PIs were not truly comparable because they were used to compare differing environments with different levels of need and demand. In particular out-patient activity covers a huge range of services, which differ across seemingly similar hospitals. This makes the interpretation of any single PI very difficult indeed.

3. The common use of national averages as benchmarks for desirable performance was not appropriate. Birch and Maynard (1986) also showed concern at the use of national averages as benchmarks since there is no guarantee that the 'norm' is actually efficient.

4. Finally, the data used were often inaccurate. In particular the data were argued to be suspect because of their lack of coverage, frequently changing reporting procedures and methods and many missing observations.

However, despite these major problems, Allen et al (1987) argued that the imposition of PIs had resulted in favourable results. This was not necessarily because the indicators were relevant or reliable in and of themselves but because the act of thinking about and collecting them forced

managers to consider issues of efficiency and the purpose of service provision. These effects on service had not been considered before in such a structured manner. Today, PIs are playing an increasingly important role in the NHS performance reviews and also in the contracting system between purchasers and providers.

Most of the existing literature on PIs in the NHS is therefore not directly relevant to the expected use of PIs in health promotion, where external targets analogous to the Health of the Nation targets may be set to monitor progress over time. However, some of the successes and pitfalls of PIs in their role as methods of internal control can be applied to their possible use in health promotion.

3 HEALTH EDUCATION AND HEALTH PROMOTION

Before we go on to discuss health promotion PIs in more detail, it is important to review the development of health promotion as a discipline. The evolution and current status of health promotion are critical factors in informing the possible future role of PIs. The selection of meaningful performance indicators fundamentally requires a clear notion of what is meant by success and this in turn requires clarification of the ideological and practical basis of health promotion (Tones 1991).

3.1 Traditional health education

Health education has a much longer history than health promotion. It grew out of the public health movement in the 19th century and has only been overshadowed by the 'new' health promotion in recent years. Health education is traditionally epidemiologically-based. Prevention of disease is the main focus and the achievement of mortality and morbidity reductions or targets are common measures of success. It is less obvious through what mechanisms these targets are reached although most health education programmes endeavour to reduce life-style and environmental risk factors deemed responsible for specific diseases. This approach emphasises the narrow medical definition of health as the absence of disease. Individuals are exposed to information upon which they are expected to act rationally by changing their lifestyles

accordingly. This approach therefore emphasises personal responsibility and the belief that providing information on health behaviour risks may be all that is required.

3.2 A broader definition of health and the role of health promotion

Health promotion is a more recent movement although it has some roots in the nineteenth century public health and twentieth century health education movements. It is not, yet, a discipline in itself but is multi-disciplinary comprising diverse and often contrasting inputs from medicine, education, the social sciences and health promotion research and practice (Downie et al 1993). In order to comprehend the varied notions of health promotion it is first necessary to consider the definition of health itself. The definition of health has always been subject to controversy and has mutated over time from the Middle Ages view that health is rooted in religious faith to the understanding of health as moral obligation in the nineteenth century (Müller 1988). The most widely known definition today is that of the World Health Organisation (WHO):

"Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity." (WHO 1946)

This is a much broader view than that associated traditionally with health education and informs, in some way, most contemporary definitions of health promotion. Downie et al (1993) for example praise it for emphasising the wider aspects of health although it is criticised for the implicit presumption that health is a final state. Rather, health is a relative concept and therefore health promotion should strive for the betterment of health rather than a given final goal. The physical, mental and social health of an individual is a complex interaction between positive factors eg. well-being and fitness, and negative factors eg. disease, illness, deformity, injury, handicap, disability and unwanted states. The goal of health promotion is therefore ambitious:

"Health promotion comprises efforts to enhance positive health and prevent ill-health, through the overlapping spheres of health education, prevention, and health protection." (Downie et al 1993).

The notion of balance between these three components is crucial. Too much attention to prevention may lead to neglect of the positive aspects of promotion. Similarly, to use their example, concentrating on fitness may lead to detrimental consequences if the risks of injury are not taken into account. This broadening of the definition of health and consequently the birth of health promotion has been one of the most significant developments in the field of health studies in the past 20 years.

A further important parallel development is the increasing acceptance of 'self-empowerment' and free choice in health promotion (Tones 1986). This view stems from the education literature and argues that education should be concerned with developing rationality and freedom of choice within individuals. The primary aim is to facilitate 'free' decision-making about health behaviour *irrespective* of the final decision itself. Self-empowerment can therefore conflict with more traditional views of health promotion where a successful outcome would be defined as a 'positive' change in health-behaviour. For example, a smoker may choose to continue smoking after being presented with all the relevant medical facts and decision-making skills to resist peer pressure. This would be seen as success by the self-empowerment theorists. This seems to be very close to the concept of the rational actor in traditional economic theory. Self-empowerment could be interpreted as an attempt to attain the economist's 'assumed' rational decision-maker. Unsurprisingly those who support this view tend to argue against the prescriptive 'social engineering' approaches to health promotion (Müller 1988).

3.3   Implications for performance indicators in health promotion

These differing views of the purpose of health education and promotion have profound implications for the role of PIs in meeting the final objectives of health promotion. As Tones (1986) argues, the differences between the three approaches can be seen most clearly by what would count as success (see Figure 1). For the preventive-based (health education) approach, quantifiable falls in mortality or morbidity due to specific or societal interventions would be appropriate indicators. However, there are problems specific to the nature of health promotion in adopting this approach. In particular, the time elapsed between intervention and final outcome in some cases will be so large as to render it impossible to use final outputs as performance indicators. For example, the final health outcome of alcohol health education for school-age children may only be known after 50 years, and then only if a control group were also followed up. In these cases intermediate quantitative indicators may be more useful such as measurable changes in knowledge, attitudes, beliefs and drinking behaviour. We return to this below.

Figure 1: The definition of health promotion and performance indicators

DEFINITION	TYPE OF INDICATOR	EXAMPLES
Preventive health	Quantitative	mortality rates morbidity measures
Positive health	Quantitative/qualitative	mortality rates morbidity measures social/political change subjective well-being
Self-empowerment	Qualitative	subjective self-esteem decision-making skills

The broader approach implied by Downie et al's (1993) definition would include such quantitative indicators but also wider qualitative measures of social, political and environmental change ranging from local housing interventions to massive, concerted political action to eradicate poverty. Again intermediate or process indicators could be developed to track this development. Examples that have been suggested include the extent of safety and labelling of goods legislation; taxation and advertising policies of health damaging products; time allocated

to health information programmes on television; and public participation in health activities at community leisure and sports centres (Noack 1988). Another advantage of this approach is that since health is partially defined as a positive state of well-being, final health outcomes could be measured with suitable and rigorous techniques. Interviews and questionnaires could possibly fulfil this role, if properly designed, since they may be sensitive enough to pick up changes in well-being over time. Finally, if self-empowerment is seen as the main aim of health promotion then the capacity to choose freely between risky and non-risky behaviours is enough. Imposing performance indicators for feelings of well-being or changes in behaviour or disease outcomes will not necessarily be meaningful. Rather more subjective measures of self-esteem and decision-making skills would be more appropriate.
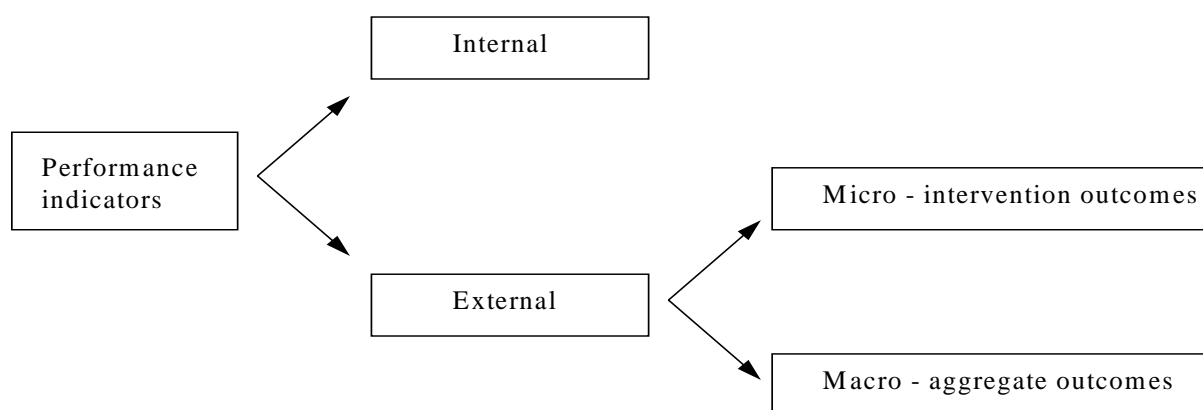
4 ESSENTIAL FEATURES OF HEALTH PROMOTION PERFORMANCE INDICATORS

Section 3 has shown that opposing views of health promotion have a conditioning role on the sorts of PIs which may be of use. However, even more fundamental is the question of what performance indicators are actually for and whether the practicalities of health promotion limit their use. Figure 2 describes one possible schema for exploring their role.

PIs do have a potentially useful role in assessing internal performance: an assessment of the way in which health promotion agencies work, develop and deliver health promotion to its target groups. There is quite a lot of literature on this in other areas of the NHS and government which could be usefully drawn upon. The Treasury has published a guide explicitly for the use of government agencies considering using PIs (HM Treasury 1992). However, in the past PIs have been rightly criticised for paying little attention to the outputs of organisations (Allen et al 1987). In the case of health promotion, output is about external performance. This is particularly important for health promotion since much of the criteria for success depends on how the delivery of health promotion is reflected in changes in knowledge, attitudes and beliefs, behaviour and finally health or decison-making skill changes in those external to the provider, individuals and the community. Within this external role PIs may be useful at the micro-level, ie. the delivery of specific programmes and interventions, and macro-level, ie. the impact of

health promotion on higher level indicators, analogous to those contained in the Health of the Nation document.

Figure 2: The role of performance indicators in health promotion

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                          ┌──────────────────┐
                          │     Internal     │
                          └──────────────────┘
                           ↗
┌──────────────┐                          ┌─────────────────────────────┐
│ Performance  │                          │ Micro - intervention outcomes│
│ indicators   │                          └─────────────────────────────┘
└──────────────┘          ┌──────────────┐  ↗
                           ↘│   External   │
                          └──────────────┘  ↘
                                            ┌─────────────────────────────┐
                                            │  Macro - aggregate outcomes  │
                                            └─────────────────────────────┘
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Section 5 discusses possible internal and external indicators in more depth. However, it is important to note here that suitable measurement, evaluation, attribution and responsibility (MEAR) are crucial if PIs are to be of any real use in health promotion (see Figure 3). Without measurement, qualitative or quantitative, there is no way of evaluating. Without evaluation there is little way of knowing whether health promotion activities are achieving their stated goals. Without attribution of cause and effect there is no way of knowing why targets are being met or missed. Without this knowledge it is not possible to assign responsibility for meeting set targets to specific agencies or organisations, or to reward or punish performance and therefore to have any degree of control over the outcomes from health promotion. Without these four key attributes health promotion PIs will simply be health promotion indicators, useful in themselves as monitoring devices but not as a means of knowingly influencing the health of the nation, however defined.

Figure 3: Four essentials of a health promotion performance indicator

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                    Responsibility

                    Attribution

                    Evaluation

                    Measurement
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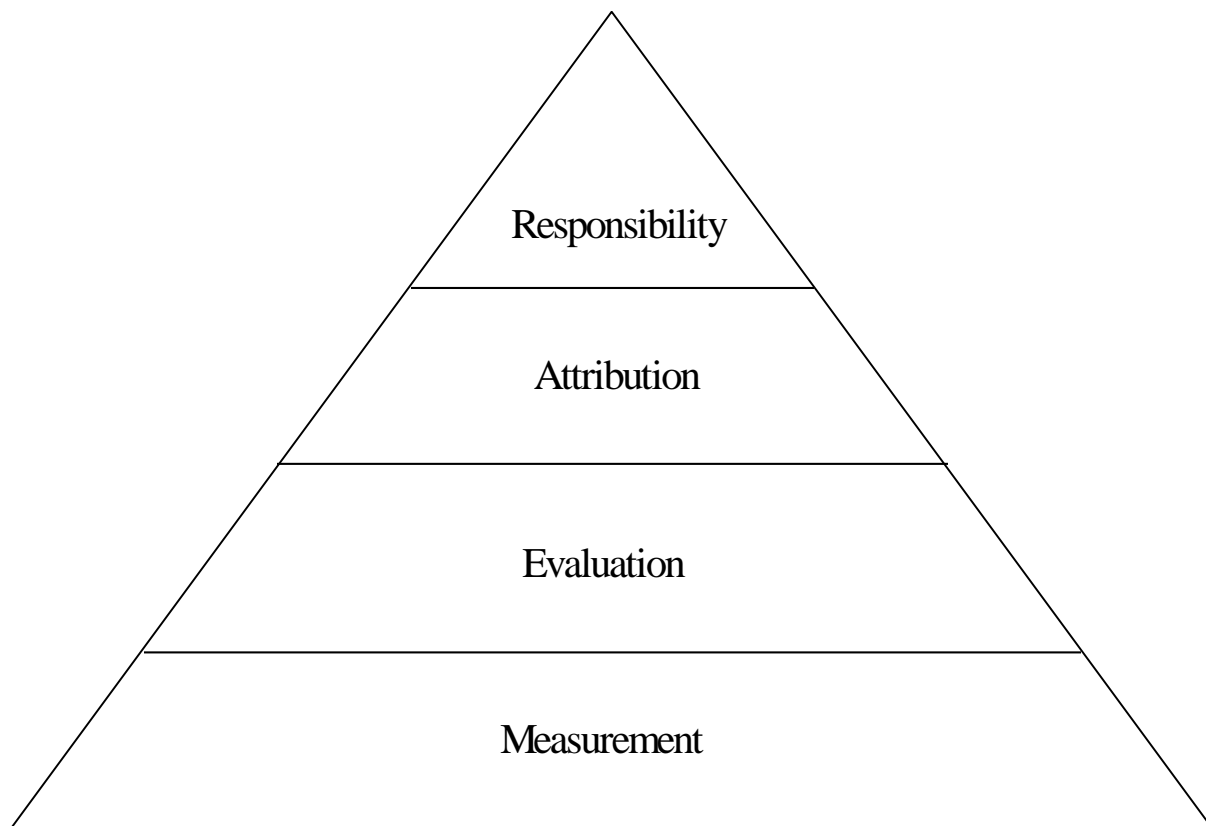
However, it is precisely on these four important points where most health promotion, by its very nature, suffers. It is exceptionally difficult to undertake the 'gold standard' of medical evaluation, the randomised control trial (RCT), because of the complexity of delivery, the long follow-up period and the obvious potential for contamination between intervention and controls especially in population interventions. Other, less experimental, forms of evaluation have to be reverted to such as pre-post sampling or cohort analysis (Braverman 1989). The problems are less severe when measuring the internal performance of an organisation over time because of the lack of need for controls. However, in terms of external macro performance, attribution is almost impossible for some indicators and it is doubtful whether strict performance indicators are meaningful since there is no controllable way of influencing them. For others, such as immunisation rates in primary care, the MEAR criteria are clearly passed and sanctions can be imposed if PIs imply poor absolute or relative performance. Old et al (1994) discuss performance indicators in primary care in more depth.

All this does not mean that paying attention to indicators which fall short on the essentials should be discouraged. Such health promotion indicators do contain important information for policy-makers, but they should not be considered to be *performance* indicators since it is not at all clear whose performance is being measured and how that performance can be influenced.

5. HEALTH PROMOTION (PERFORMANCE) INDICATORS IN PRACTICE

In practice, the use of target setting for health has increased significantly since the WHO outlined its Health For All by 2000 policy in 1977. Specific targets were set in 1985 (WHO 1985) and the UK Department of Health followed suit in 1992 with the influential Health of the Nation document which implied a large role for health promotion, or at least prevention. Indicators have been discussed in the health promotion literature, although to no great degree, the most significant contribution being a special issue of the journal *Health Promotion* which published 15 papers from an international gathering of experts in Berne, Switzerland (Noack and McQueen 1988). This section discusses how health promotion (performance) indicators have been, or could be, used in practice.
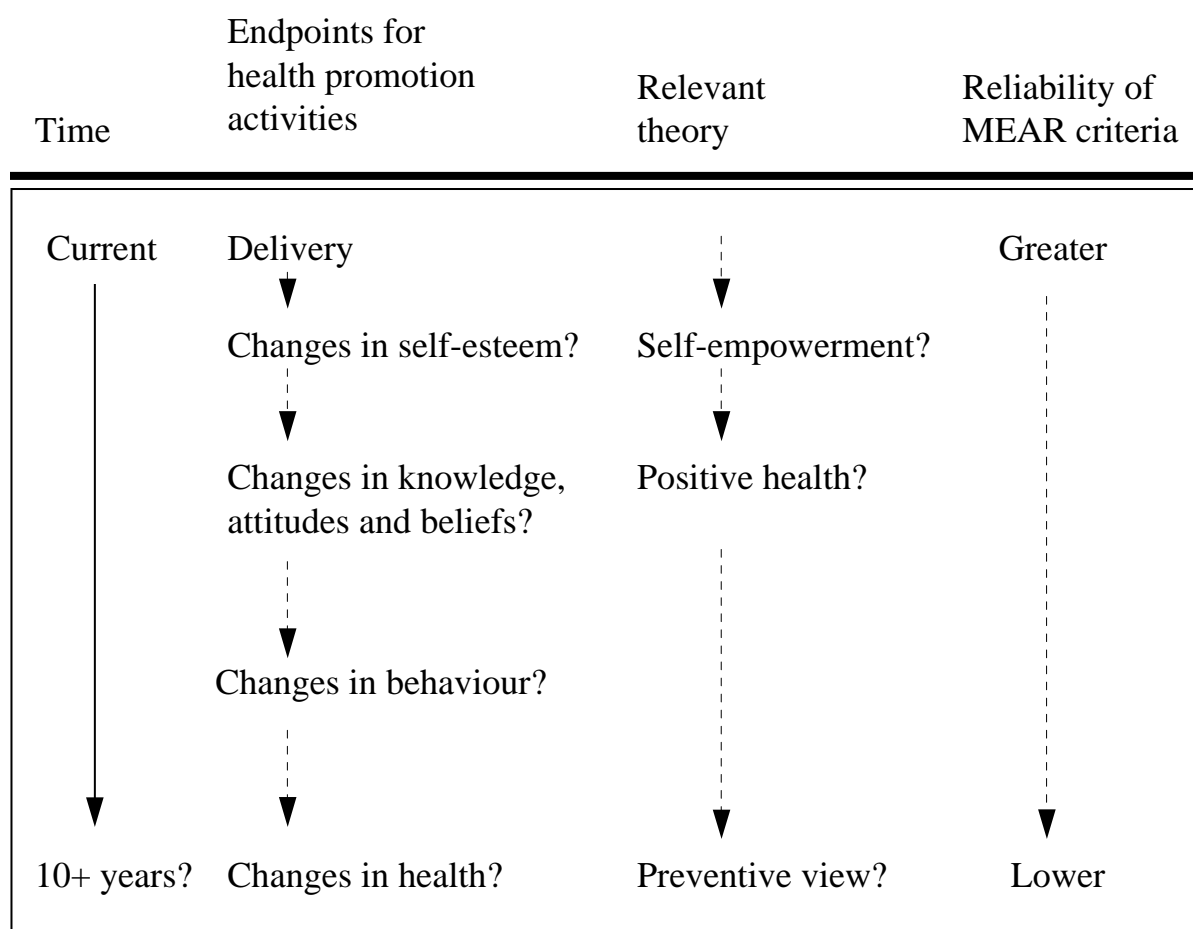
5.1 Internal

Good internal performance of health promotion organisations is an important factor in maximising the overall performance of health promotion. In Wales there has been considerable dialogue between Health Promotion Officers and the Welsh Office about introducing a national set of performance indicators for District Health Promotion Departments. This relates to the traditional use of PIs in the public sector as a means to compare performance across agencies (Whelan et al 1993). Health promotion agencies can make use of the experience gained by other government organisations in this area. The Treasury guide outlines four particular areas within which indicators should be developed: financial performance, volume of output, quality of service and efficiency (HM Treasury 1992). These general PIs are not therefore considered further here.

5.2 External

Ironically this is the very area where performance indicators are most needed but also where they may be most difficult to construct. Successful health promotion is a long process. As Figure 4 shows there is a long chain of events between delivery and any successful outcome. The use of performance indicators will be conditioned by the acceptable end-points of a health promotion intervention which in turn is dependent on the underlying theoretical framework. If the endpoint is solely the delivery of the intervention then it may be relatively easy to define and use performance indicators. However, such indicators would not be useful if the endpoint were defined as changes in knowledge, attitudes or beliefs, health behaviour, decison-making skills or final health outcomes. In addition as the endpoint progresses in time from delivery through to final outcomes, the ability to meet the criteria for a reasonable PI is reduced. Measurement and evaluation is costly and often impractical over long periods of time, especially for small-scale projects, and this obviously leads to many difficulties of attribution which are compounded by the existence of confounding factors. It is therefore impractical in most cases where final outcomes are the endpoint to speak in terms of performance indicators.

However, this may be too pessimistic. As has been discussed in section 3 the choice of an acceptable endpoint is conditioned to a large extent by the theory of health promotion which is followed. Figure 4 illustrates that performance indicators may well be more useful to those who believe in a self-empowerment and positive health paradigm than the traditional preventive health view. This is because knowledge, attitudes and beliefs (KAB) may be a suitable endpoint for interventions under these paradigms. Even in cases where final health outcomes are the relevant endpoint all may not be lost. Where there is good evidence of a predictable link between the pre-cursors, such as changes in KAB or behaviour and final health outcomes, Pis may be useful in monitoring or tracking their movements. Linking changes in KAB and behaviour change to final outcome simulation models such as Prevent (Gunning-Schepers 1989) could be a very fruitful way forward here. There has been some preliminary work completed in this area (Tolley 1993; Buck and Godfrey 1994).

Figure 4: The challenge of health promotion to performance indicators

Time	Endpoints for health promotion activities	Relevant theory	Reliability of MEAR criteria
Current	Delivery		Greater
	Changes in self-esteem?	Self-empowerment?	
	Changes in knowledge, attitudes and beliefs?	Positive health?	
	Changes in behaviour?		
10+ years?	Changes in health?	Preventive view?	Lower

5.2.1   Micro-level

5.2.1.1 Quantitative targets

Given these points, there have been attempts to provide guidelines on performance indicator or 'target' selection at the micro-level. Gooder (1992) presents useful guidelines in order to refine the use of target setting and performance indicators. The guidelines were not specifically written for health promotion interventions but are highly relevant. The author proposes guidelines in three related areas: the subject for targets, setting target levels and interventions for meeting targets. The following are suggested rules for successful performance indicator setting (based on Gooder (1992)):

Subject rules

1. The target must be an important health problem for the community.

2. The target must be an outcome or a process indicator where there is good evidence to suggest a predictable relationship between process and final outcomes.

3. Agreed target groups should be identified

Target level rules

1. The target must be measurable.

2. The target level should be rationally chosen. If a percentage is stipulated then the baselines should be clearly stated.

3. The target should be realistic but challenging. Missed targets are de-motivating, self-fulfilling ones irrelevant.

Targets could be based on:

1. The ideal in a perfect world.

2. The best ever achieved anywhere.

3. The previous target plus an improvement.

4. The target level of another body or institution.

5. An arbitrary level, in the desired direction and likely to be achievable.

Intervention rules

1. Effective intervention(s) must be identified. A proposal for a target must identify the intervention(s) to be used and give some evidence for the likely benefit to be achieved by the intervention.

2. The intervention must be acceptable to the target group, otherwise the intervention will not be successful.

3. The intervention must give value for money.

4. The organisation(s) given the responsibility to achieve the target must be identified.

5. The organisation(s) with the responsibility for meeting the target must have the authority and capacity to control action in the target area.
6. Continuous review should occur.

In practice of course there are always problems. The criteria above and our own more restricted MEAR criteria are often difficult to meet in practice. The discussion of Hayes and Willms (1990), about the search for relevant indicators in the Canadian Healthy Communities Project (CHCP), illustrates just how difficult it is to translate theory to practice. The CHCP is a highly ambitious project emphasising the holistic view of health and active community partcipation. PIs had a central role in the evaluation of the projects and communities were required to identify relevant, sensitive and relatively easy to collect indicators to monitor progress towards objectives and provide comparisons with similar projects. The authors identified five main concerns about the use of indicators:

1. The lack of guidance of communities about where to get information about suitable indicators.
2. A concern about insufficient expertise amongst members about how to carry out research to identify indicators themselves.
3. Concerns about gathering data.
4. Worries about having the resources to carry out an evaluation.
5. Concern about what the results of the analysis would be used for.

If local communities are to benefit from the use of quantitative performance indicators they must have, or have accessible, the expertise to identify, collect and interpret indicators at low cost to themselves. At present, except for well-known indicators such as immunisation rates, it is unclear whether sufficient indicators exist at a local level. However, these problems are not insurmountable if a national body, such as the HEA, could provide the necessary research, expertise and reassurance.

5.2.1.2 Qualitative targets

A more fruitful approach, given a belief in the positive health view of health promotion, may involve more emphasis on the qualitative approach. This is supported by the fact that subjective or perceived views of health are more closely linked to use of health services than medical condition (Goldstein et al 1984). Traditional quantitative measures can also be misleading, for example a study of hypertensive patients showed all to have reduced blood pressure leading physicians to state that all patient's health had improved. However, self-reported health had deteriorated in over half of patients, defined in terms of fatigue, irritability and sleeping patterns (Jachuk et al 1982). In addition all the patients' families reported worse quality of life. Similarly indicators like return to work rates may be contra-indicatory if this is at the expense of social functioning and well-being (Finlayson and McEwen 1977).

Hunt (1988) describes the development of the Nottingham Health Profile (NHP), as a measure intended to capture the subjective elements of health. It is more accurately a quantitative assessment of the qualitative experience of health status. This approach is promising although, as Hunt (1988) acknowledges, the NHP is based on assessing the experience of ill-health rather than that of positive health. Measures of positive health may be more difficult to derive. Schutz (1971) has argued that the healthy body and mind do not demand conscious attention and therefore introspection and it is not surprising that people find it more difficult to describe good health. This is an area for urgent future research. Hunt (1988) helpfully lists criteria for any successful subjective health measure:

1. The questionnaire should be as short and simple as possible.
2. Response categories should be unambiguous.
3. The language in which questions are expressed should be untechnical and understandable to the majority of the population.
4. Scoring should be easy.
5. Content should be acceptable to respondents.
6. The questionnaire should have face, content and criterion value.
7. The instrument should be sensitive to changes in individuals over time as a result of health promotion interventions (author's addition).

The NHP has been used successfully in many descriptive studies and both individual and socio-environmental factors have shown to be independent and significant predictors of scores (Hunt et al 1985). The author argues that subjective indicators may be particularly suitable in the context of health promotion for four reasons:

1. They allow people to express themselves in their own way and are thus not subject to the biases of definition of health and health promotion from professional groups.
2. The expression of subjective experience naturally encompasses mental, physical and social factors.
3. These indicators can be used to explain and predict the links between the way people feel, their health-related behaviour and the social environment in which they live.
4. Since subjective indicators are related to the way people feel they are more likely to be related to actual behaviour than medically-defined states.

However, subjective indicators do have several disadvantages, particularly the effects of confounding factors which are multiplied when using subjective indicators because so many factors shape people's experience and evaluation of health. For example, this may be as simple as receiving bad news. Controlling for such individual factors is possible by increasing sample size but common factors, such as changes in the weather have also been shown to affect all those questioned. It may be more difficult to accurately attribute cause and effect with qualitative indicators, more research is needed.

5.2.2 *Macro-level*

Macro-level indicators in health promotion are particularly needed at present to monitor relevant progress towards the Health of the Nation targets. The HEA has recently produced for the first time a guide to sources of health and lifestyle data which contains much useful information on knowledge, attitudes and behaviour (HEA 1994). This guide describes 20 national surveys in-depth in three HoN areas: CHD/stroke, cancer and HIV/AIDS/sexual health. It also contains a copy of another important document outlining possible 'health education targets or performance

measures' for health promotion related to Health of the Nation key target areas. These are reproduced as Appendix 1 of this discussion paper. These should be more accurately regarded as just targets, performance indicators measure progress towards these targets. There are 31 suggested targets based on existing questions from national surveys of health and lifestyles. Some targets remain to be determined, particularly in the areas of accident prevention, mental health and drugs policies. Of the 31 indicators 14 are related to key areas, CHD/stroke and cancers, concentrating on diet and nutrition, alcohol, physical activity and smoking. It is not possible to review all 31 targets independently but it is instructive to review them as a whole. There are several key points which should be mentioned:

1. The emphasis is on prevention through changing individual lifestyles and risk factors. The targets have less relevance to the 'positive' or 'self-empowerment' view of health promotion. There are some exceptions eg. smoking and alcohol policies in the workplace.

2. Second, and a related point, none of the suggested indicators explicitly consider final health outcomes, however defined. These indicators are dominated by measured levels of knowledge and changes in attitudes and behaviour in individuals. There are also a few indicators of organisational change such as the uptake of alcohol control policies in the workplace. More specifically: 14 targets measure awareness, knowledge or beliefs and these are concentrated in the CHD/stroke key area; 17 targets measure behaviour change of individuals or organisations and these are concentrated in the other key areas.

3. All targets are couched in terms of 'increasing' or 'reducing'. Whilst the direction of change is an important factor in itself it can be argued that it is not specific enough. This is especially true if the target is already in trend decline or upturn. It is quite possible that increases or reductions in the targets would continue, at least in the short-term, in the absence of current health education or promotion. A more useful target and indicator would be a further deviation from trend in the desired direction.

4. Finally, it can be argued that the use of easily available macro-indicators is too simplistic (Dean 1988). More relevant indicators could focus on the complex inter-relationships between health-damaging behaviours eg. the use of alcohol and tobacco in concert. Dean (1988) also criticises the over-emphasis in health promotion on personal responsibility and

concurrent neglect of cultural and structural indicators - however this author gives little guidance how to proceed.

Appendix 1 also shows our own subjective assessment of how each of the 31 measures score according to the four MEAR pre-requisites for a good performance indicator. Measurability is not a problem since all 31 are linked to a survey question in one of the national health and lifestyle or HEA surveys. However, few of the measures score well on the other three conditions, ie. evaluation, attribution and responsibility. Quite simply there has not been sufficient evaluation at the macro level to trace the locus of cause and effect. Similarly, only for GP-delivered interventions is it clear where responsibility for meeting performance targets lies and consequently where incentives exist to meet them. This is not to say that the measures are not useful in themselves, indeed they may fulfil a very important *monitoring* function, but at present there seems little that can be done to predictably influence them. Without this link they are not adequate as performance indicators.

6   PRIORITY AREAS FOR FURTHER RESEARCH

Despite the emphasis on target-setting brought about by the Health of the Nation, knowledge and expertise in performance indicators for health promotion is lacking. This is a matter of urgent concern. There are many complex conceptual and practical problems which will influence the future role and choice of performance indicators in health promotion. These range from the fundamental, differing views about the definition of health education and health promotion, to the practical, a lack of knowledge at the community level about how to start looking for indicators, and the technical, a lack of clear responsibility for meeting macro-level targets.

It is with this in mind that we present a list of priority areas for further research in the field of health promotion performance indicators. These are set out in Table 1 and range from fundamental conceptual issues of definition to more practical issues. Before health promotion PIs can be further developed, consensus from health professionals and the public about the

Table 1: Priorities for research

KEY AREAS	PRIORITIES FOR RESEARCH
Conceptual	What is the impact of different models of health promotion on the criteria for performance indicators?
	A review of terminology in the field of health promotion
	What are the appropriate endpoints for the use of performance indicators?
	Reliable and accurate measures of self-empowerment and positive views of health
Effectiveness	How effective is health promotion?
	How predictable are the links between delivery and final outcomes?
	Is there a role for modelling techniques?
	Is there a role for cost-effectiveness criteria?
Monitoring	What is the role of indicators as monitoring devices to assess progress towards Health of the Nation-related targets?
	What is their role in the development of monitoring frameworks for specific health promotion programmes
Practical issues	How should performance indicators be used as a means of internal control in health promotion organisations?
	What can they and cannot do in practice?
	What information is needed to develop indicators?
	What is the role of health and lifestyle surveys for collecting health promotion information?
	Reliable sources of information of health and lifestyle need to be available over time at local and national level
	There is an urgent need for guidance on the appropriateness of (performance) indicators

different purposes of health promotion is required. Some fundamental research that could be undertaken would be to assess the views of different groups of the population to determine usefulness and values of the different types of outcomes described in Figure 1. This will increase confidence in the type of PIs, at all levels, which need to be developed and an idea of prioritising between them. In addition if 'self-empowerment' goals are deemed to be important then specific research is needed to develop appropriate, credible and reliable measures.

The importance of micro-level PIs may lie in their ability to give guidance as to how health promotion can be monitored in a similar way to health-care or other public sector activities. There are two major research tasks involved in developing PIs to serve these purposes at the micro-level. The first is to explore the selection of PIs that can be cost-effectively measured. At present there is little expertise within communities about how to select and monitor quantitative or qualitative targets. This type of exercise could result in a large number of different PIs. The second area is to examine how information from all these PIs can be used to influence priority decisions. For this purpose it would be necessary to assess the relative importance of changes in separate PIs and their contribution to changes in the welfare of the community. This also necessitates measuring the population reach and impact of the interventions to which the PIs are related.

Performance indicators at a macro-level are substantially different in purpose from other PIs. They can be seen merely as a signal device to indicate whether desired outcomes eg. Health of the Nation targets, are likely to be met. However, the real purpose of PIs at this level is to give guidance on what *action* should be taken and these measures need the characteristics of: measurement, evaluation, attribution and responsibility as discussed above. Of these characteristics, responsibility could be the most difficult to establish at the macro-level. Without determining responsibility there is no route to take corrective action. The research need therefore is to determine whether PIs can be linked to responsibility at this level. One clear example is GP-delivered immunisation targets but finding others may prove more difficult. To use performance indicators for determining policy action, it is also necessary that they have the other characteristics of a successful PI. One means to increase confidence about attribution is to include measures of why people change behaviour in health promotion tracking surveys.

Much of the measurement for PIs will be of attitude and behaviour change whilst wider health policy goals are expressed in terms of health outcomes. The use of computer simulation models could provide very useful links between behaviour change and final health outcomes, in terms of mortality, from several risk factors. As mentioned above models such as Prevent are already tackling some of these issues. More developed versions of current models could be developed which look at the links between KAB and behaviour change, and the feasibility of including

socio-economic 'risk factors' and morbidity outcomes may be a way forward in at least approximating the final effects of health promotion and assessing which groups of the population have improved quality of life.

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Appendix 1: Health of the Nation Key Areas, suggested health education/promotion targets and the MEAR criteria

HoN KEY AREA AND RISK FACTORS	SUGGESTED HEALTH EDUCATION TARGETS/PERFORMANCE MEASURES	M	E	A	R
CHD/STROKE	1. To increase awareness among the population of the main risk factors associated with CHD and stroke	X	?	?	?
	2. To increase awareness among the population that it is possible to do something to reduce personal risk of CHD and stroke	X	?	?	?
Diet and nutrition	1. To increase the proportion of the adult population who understand which foods are high in saturated fats	X	?	?	?
	2. To increase the proportion of the population who believe that healthy foods can be cheap, tasty and enjoyable	X	?	?	?
	3. To increase the proportion of the population who are able to correctly state at least three ways of achieving a healthier diet - eg. eat less fat, eat more fruit and vegetables, and eat more starch and fibre	X	?	?	?
	4. To reduce the proportion of the population who express confusion about what constitutes a healthy diet	X	?	?	?
	5. To increase the proportion of the population who understand how to control their weight through diet	X	?	?	?
	6. To increase the proportion of people who have discussed diet and healthy food at their GP surgery/health centre in the last 12 months and have found it helpful	X	X	X	X
	7. To increase the proportion of people who report being able to buy healthy food at their place of work	X	?	?	?
Alcohol	1. To increase the proportion of people aged 15-54 years who can identify the correct number of units in a glass of wine, pint of beer, and measure of spirits by the year 2000 and who can name the correct weekly sensible limits of 14 units for women and 21 units for men by the year 2000	X	X	X	X
	2. To increase the proportion of worksites (100+ employees) which have alcohol policies	X	X	X	X
	3. To increase the proportion of people who have discussed sensible drinking at their GP surgery/health centre in the last 12 months	X	?	?	?
Physical activity	1. To reduce the perceived barriers to increasing physical activity among the general population	X	X	X	X
	2. To increase the proportion of the population who receive helpful advice on physical activity from their GP/health centre	X	?	?	?
CANCERS					
Smoking	1. To increase the proportion of smokers (aged 16-75) who want to give up smoking	X	?	?	?
	2. To increase the proportion of smokers (aged 16-75) who attempt to give up smoking	X	?	?	?
	3. To increase the proportion of the population whose workplace operates a smoking policy (ie. a ban on smoking or smoking permitted in a special section only)	X	?	?	X
	4. To increase the proportion of the population who support a restriction on smoking in public places	X	?	?	?
	5. To increase the proportion of women smokers who stop smoking in early pregnancy	X	X	?	?
	6. To increase the number of women smokers receiving professional advice to give up smoking during pregnancy and who find the advice helpful	X	X	X	X
	7. To reduce reported smoking prevalence among partners during pregnancy	X	?	?	?
	8. To reduce the exposure to passive smoking among pregnant women in the workplace	X	?	?	?

cont'd

HoN KEY AREA AND RISK FACTORS	SUGGESTED HEALTH EDUCATION TARGETS/ PERFORMANCE MEASURES	M	E	A	R
	9. To <u>increase</u> the number of 12 year-olds who <u>recall</u> receiving lessons on smoking during the past year	X	?	?	?
	10. To <u>increase</u> the proportion of schools who have smoking <u>policies</u>	X	?	?	?
Breast and cervical	1. To <u>increase</u> the proportion of women (sexually active, aged 16-64) who have had cervical <u>screening</u> within the last three to five years	X	X	X	X
Skin	1. To <u>increase</u> the proportion of the population who <u>know</u> how to reduce their risk of getting skin cancer	X	?	?	?
MENTAL ILLNESS	1. To <u>increase</u> the proportion of worksites <u>offering</u> relaxation and stress management	X	?	?	?
HIV/AIDS and SEXUAL HEALTH	1. To <u>increase</u> the proportion of the population (aged 16-55 years) who always or most times <u>use</u> a condom when they have sex with a new partner	X	?	?	?
	2. To <u>increase</u> <u>awareness</u> of personal risk of HIV infection among those who are most at risk (ie. those people who have had two or more partners in the last 12 months and who do not use a condom)	X	?	?	?
	3. To <u>increase</u> the proportion of young people aged 15 who <u>feel</u> well informed about contraception and birth control, and the risk of HIV, AIDS and other STDs	X	?	?	?
ACCIDENTS	1. Targets to be determined	X	?	?	?
IMMUNISATION	1. To <u>increase</u> the proportion of parents who <u>intend</u> to immunise their children aged 0-5	X	?	?	?

Source: derived from HEA (1994), underline and MEAR criteria added by authors.