QUALITY, EVIDENCE AND EFFECTIVENESS IN

HEALTH PROMOTION

STRIVING FOR CERTAINTIES

EDITED BY JOHN KENNETH DAVIES
AND GORDON MACDONALD

Quality, Evidence and Effectiveness in Health Promotion

Health promotion specialists have long grappled with how to measure the quality and effectiveness of their research and practice. This is the first book to combine these two concepts in one volume.

The book addresses:

- research effectiveness through the examination of different evaluative methodologies
- practice-based quality assurance programmes
- examples of health promotion interventions which work.

Quality, Evidence and Effectiveness in Health Promotion attempts to demonstrate that health promotion is a crucial area for investment by policymakers. The book will be invaluable to practitioners, academics and students working in health promotion and public health.

John Kenneth Davies is Senior Lecturer in Health Promotion at the University of Brighton; **Gordon Macdonald** is Professor of Health Promotion Policy and Development at the University of Glamorgan.

Quality, Evidence and Effectiveness in Health Promotion

Striving for certainties

Edited by John Kenneth Davies and Gordon Macdonald

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Foreword

The pressure to prove that 'health promotion works' is particularly strong at this point in time when health care reforms call for never ending streams of evidence, efficiency and effectiveness measures, frequently defined by a marriage of convenience between economic rationalism and clinical outcome.

Health promotion measures its impact and outcome with quite a different tool box. This book, the first with such a comprehensive content, surveys the evaluation processes and methods and discusses the challenges that quality assurance in health promotion presents. Some practical examples are offered which give both academics and practitioners an opportunity to review aspects of quality and effectiveness on a global scale.

Health promotion constitutes a change in perspective and paradigm, since it challenges both conceptual frameworks and methods of intervention. It is challenged in turn to prove that 'it works': in many cases, with more than established clinical and management procedures. This book accepts the challenge and provides professionals in the field of health promotion with supportive evidence.

The World Health Organization also recognises the uncertainty that such change brings. It works with partners around the world—in particular its strong network of collaborating centres—to strengthen the knowledge base for health promotion interventions so as to ensure their quality and effectiveness. The challenges raised by health promotion enable us to move the field of public health forward: the uncertainties of today carry the seeds of the solutions of tomorrow.

This book will prove as useful for those practising health promotion as for those who are involved in health promotion research and teaching. In particular though, I would hope that policy-makers, decision-makers and critics of health promotion find time to study it. They will discover much food for thought— and hopefully a reason to invest in health promotion on a larger scale, moving it from the margins to the centre of the playing field.

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Preface

The original idea and impetus for this book came from the editors' work as members of the Scientific Planning Committee for the Third European Conference on Effectiveness: Quality Assessment in Health Promotion and Health Education, held in Turin in September 1996. This conference highlighted the more general concern that health promotion was increasingly needing to justify itself and its use of scarce resources. In particular it needed to apply appropriate processes for quality assurance and more rigorous measures of effectiveness. Many of the contributors to this volume participated in the conference and were involved in identifying similar concerns, 'grappling with the uncertainties' involved and discussing possible solutions. This reflected the importance of this event and its catalytic effect internationally, in terms of the future direction of quality improvement and evidence-based practice in health promotion.

The book therefore provides researchers, practitioners and policy-makers with a unique, state of the art publication on quality assurance and evaluation in health promotion globally. Although it critiques conventional approaches to evaluation, it doesn't pretend to have simple alternatives. Instead it offers a valuable aid to critical analysis, drawing on the ideas of some of the foremost international thinkers in this key area of health and social development.

This book would not have come to fruition without the assistance, both intellectual and practical, of many people. We wish to acknowledge the advice and support of all members of the Scientific Committee of the 1996 Turin Conference, particularly Professor Lamberto Briziarelli, University of Perugia, and Dr Mario Carzana, Piemonte Regione, in the initial preparation of the book. Thanks are also due to other colleagues from Piemonte Regione and from the Italian Committee for Health Education. In addition, many thanks to Heather Gibson and Fiona Bailey at Routledge for their help and support during the preparation of this volume. Finally, and not least, we wish to acknowledge the administrative support of the University of Brighton, particularly the assistance of Eleanor James, Jean Ross and Janice Lyons, in preparation of the final manuscript.

John Kenneth Davies and Gordon Macdonald
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Introduction

Gordon Macdonald and John Kenneth Davies

The key concerns that arose during the European Conference on Effectiveness in Turin in 1996 focused around three key issues.

First, if health promotion is to remain at the forefront of local, national and international health policy development and investment, it needs to establish, as a matter of some urgency, a framework for evidence-based practice. This framework would not only include reference to established and conventional research methods, which help prove the effectiveness of interventions, but also incorporate more developmental evaluative methods that aid the understanding of the progress and process of an intervention's life as well as its outcome.

Second, there is a growing realisation that traditional logical positivist approaches to health promotion research and evaluation no longer provide the right questions (or indeed answers) for many health promotion interventions. These approaches tend to be rooted firmly in the biomedical model and the origins of *disease,* which, although the mainstay of many early health promotion research programmes, are now having to give way to more pluralist, postmodernist approaches, based on the origins of *health*. Only by encouraging this development can health promoters discover the answers to the 'how' and 'why' of programmes as well as the 'what' and 'when'. In practice this will involve using the best of both research paradigms and methods in a form of triangulation, such that it will provide epistemological validity and reliability. The chapters in this volume support this trend towards non-positivist approaches to research. It is heartening to note that others are now responding to this call for broadening the base to research, including in England, a Health Education Authority sponsored working group on evidence in health promotion.

Third, and more recently, specialists in health promotion and public health are attempting to gain an understanding of the whole process of quality assurance (QA) and how it applies to their work in order to improve practice. Various options that include Continuous Quality Improvement, Total Quality Management, External Standards Inspection and others, have all contributed

to a feeling that there is a need to monitor and audit health promotion work to help develop best practice. This again, is probably achieved through some kind of process quality audit combined with standards setting, using indicators and criteria, which together, produce a comprehensive QA programme.

These concerns are inevitably linked, the second and third issues providing the mechanism and detail to help inform the larger framework for evidence-based practice. It is also true that the kinds of debate going on between the two research paradigms are being mirrored in emerging discussions on quality assurance. QA programmes, like sound and beneficial research, must provide answers to process (and input) variables in programme development and implementation, and not concentrate on the impact and outcome of interventions. This embryonic consensus on research methodology and QA approaches is evident in this book.

The book is nominally divided into three parts which reflect the themes in the title. The first part looks specifically at examples of methods for assessing evidence and effectiveness with contributions from the United States, Ireland and Australia. The Clark and McLeroy paper (chapter 2), which is rooted in health promotion developments in the United States, provides a comprehensive account of the models and concepts that should and do underpin the evolving knowledge base of health promotion. Whilst many of these models are drawn from psychological theories on behaviour change, there is an acknowledgement that other theories are essential for more broadly-based health promotion practice. Theories which form socio-ecological, environmental and empowerment approaches to the promotion of health are critical starting points for broader based evidence work. They help to explain the settings approach to health promotion, which is also considered in this chapter, and the trend towards consumer power. Kelleher elaborates on the settings approach in chapter 3. She describes and discusses public health programmes in four key settings in Ireland. The school, workplace, primary health care and the community all lend themselves to health promotion interventions, but as Kelleher stresses, the evidence to effect change beyond the individual, remains somewhat illusory. However the chapter concludes that uncertainty should not be an excuse for inaction. We need to test interventions on the best available evidence, the author argues, and not wait for certainties.

The third chapter in the first part of the book, highlights an approach to effectiveness in one setting, the community. Although based on experiences in Australia, Baum draws on literature from around the globe to support her view that community approaches, based on principles of participation and empowerment, offer real alternatives to traditional individual lifestyle approaches, so evident in the 1970s and 1980s. But because concepts of empowerment and participation can be contentious and ill-defined, evaluation of community based programmes can cause problems. Baum helps by

provides the reader with a useful evaluation checklist based on participatory action research.

The second part of the book examines the issue of quality assessment and provides concrete examples of how quality issues can be made more applicable through the use of appropriate instruments and guidelines. Chapter 5 from Sweden builds on work first developed at the Sundsval Conference in 1991. Haglund, Jansson, Pettersson and Tillgren provide an easily understood 20-item instrument for assessing the quality of an intervention. This work is complemented by Keijsers and Saan who, in their chapter, report on two alternative instruments (Analys and Preffi) used in the Netherlands. These instruments assess first the quality of the research methodology applied to health promotion interventions (Analys) and second the quality of practice by health promotion specialists (Preffi). Both these chapters provide useful and practical tools for researchers and practitioners to assess the quality of their work with a little more certainty.

The chapter by Speller, Rogers and Rushmere (7) describes two pieces of work which again contribute to health promotion practice. The QA manuals on standards for practice and healthy alliances are both in use in the UK. Three examples of schemes or initiatives that have applied quality standards are described. The authors conclude that their work could form the basis for further developments in QA in health promotion which could then be subject to vigorous effectiveness testing.

The third and final part of the book includes three chapters which attempt to synergise aspects of effectiveness with aspects of quality assurance. Chapter 8 (Deccache and Laperche) revisits the theoretical bases to evaluative research and quality assurance. It then provides an interesting case study of the development of a quality assessment system for primary health care in Belgium. The authors point out that the relevance of health promotion activity should take precedence over scientific complexity or political necessity. The primary health care project in Belgium attempted to make health promotion relevant by involving the users in the aims and outcomes of the project,

In chapter 9, Springett examines in some detail the issues that faced Liverpool in the UK when it attempted to implement the key features of the Health For All programme at city level. In particular she describes and analyses the ways alternative forms of evaluation can contribute to the processes of public policy development. In turn she argues that health policy can help develop evaluative techniques for quality assurance.

Chapter 10 by Rootman and Ziglio provides readers with an international perspective of current work around quality assurance and effectiveness. The authors describe the deliberations of a WHO working group as it grappled with new ideas and their application to practice. Much of the work described in this chapter is to be published in a forthcoming WHO monograph and this should help promote a dialogue between WHO and others working in the same area.

The final chapter revisits and extends our opening chapter 1. If effectiveness

and evidence-based practice are to lead the new health promotion paradigm as it embraces alternative evaluative research methodologies, then it needs clear direction. The chapter sets out a seven step plan leading towards a more post-modern approach to effectiveness and quality assessment that seeks to place health promotion at the heart of investment in public health and health care in the twenty-first century. It is an attempt to get ideas on evaluation and quality moving towards a new paradigm for a new century.

Chapter 1

Reflection and vision

Proving and improving the promotion of health

Gordon Macdonald and John Kenneth Davies

INTRODUCTION

Health promotion has matured rapidly in the last quarter of the twentieth century. From rather humble and embryonic beginnings in the late 1960s, characterised by a search for disciplinary roots and an acceptable theoretical base, it has blossomed and flourished into an international discipline and practice and found itself at the forefront of the new public health movement. Despite this meteoric rise and the accompanying trans-national attention it has received, it is still a relatively new discipline, and as such struggles to establish itself along side the more traditional and the more accepted disciplines like education, medicine and psychology (Macdonald and Bunton 1993). Major influential initiatives such as Health For All, the Alma Ata Declaration, and the Healthy Cities programme have helped raise the profile of health promotion, but substantial doubts remain about its effectiveness and its value in tackling the major issues affecting population health (Williams and Popay 1994, Peberdy 1997).

This chapter will provide a conceptual framework for the book by tracing, briefly, the development of health promotion since the 1960s. By examining first its theoretical roots and the struggle for conceptual supremacy, the chapter will continue by looking back to *reflect* on effectiveness and effectiveness studies as a way of *proving* the value of health promotion in reducing premature death and disability and promoting health. But it will also look forward for a *vision* of the future based on a quality assurance approach to *improve* practice. It will therefore be both reflective and visionary in its attempt to *strive towards certainties* in the field of health promotion theory and practice.

ROOTS OF HEALTH PROMOTION

Agreement is needed now on the knowledge base for health promotion in order to provide appropriate evidence, demonstrate effectiveness and improve quality. This knowledge base will underpin health promotion theory and practice, including

consideration of key issues such as ideology, value systems, methodologies, measurement instruments and indicators.

Only when we are clear on these fundamental issues can we begin to attempt to *prove* effectiveness and recommend a quality assurance process to *improve* health promotion. We will return to these two areas later, but first we want to trace the knowledge base and the conceptual roots of health promotion.

One of the earlier approaches to the promotion of health was based on education and psychology. The educational approach, although used pragmatically from the early part of the present century, is essentially a tool of preventive medicine. Dominated by a biomedical risk factor paradigm, it is based on a social regulationist approach (Caplan 1993), which assumes that change can be brought about within society's existing regulatory structures primarily by modifying individual behaviours. From the 1950s onwards, the theory and practice of health education developed in the United States, through the establishment of individual and social psychological models of health-related knowledge, attitude and behaviour change. Underlying this approach are positivist-empiricist principles from natural science, which assume that people are rational and logical in the way they behave. Evidence of the effectiveness of such interventions rely firmly on short-term outcomes using empirical data linked to knowledge, attitude and/or behaviour change.

Health promotion grew rapidly during the 1980s and reflected a paradigm shift from an individual focus on medical problems to a broader structuralist approach which included environmental, economic, socio-cultural and legislative measures to promote health (WHO 1984). It has developed from dissatisfaction with the professionally dominant, individual change paradigm and a realisation of its limitations. It conceives health as occurring within a complex system of variables, incorporating individual biomedical and psychological factors within a socio-ecological and environmental context. Bennett and Murphy (1997) argue that, although psychological theories have proved useful in motivating and maintaining behaviour change in the community, there is a need for health promotion programmes to change focus from individual behaviour change alone to incorporate more structural alterations.

Health promotion has been defined as: 'the *process* of enabling people to increase *control* over, and to improve, their health' (WHO 1986).

The key concepts in this definition are 'process' and 'control'; and therefore effectiveness and quality assurance in health promotion must focus on enabling and empowerment (Dreber 1996). If the activity under consideration is not enabling and empowering then it is not health promotion (Ziglio 1996). These concepts are reflected in the action areas of the Ottawa Charter for Health Promotion (WHO 1986), which fundamentally advocates a basic change in the way society is organised and resources distributed. Many of these structural changes relate to different concepts of community, which is traditionally seen

as a population or a large group of disparate individuals to be targeted, through the mass media for example. Health promotion perceives community as a setting or a form of social system or network that has the potential to act as a resource to promote health 'ecologically' from the bottom up. Community members identify and express their own needs and participative, community development strategies are negotiated with health promoters. The values which underpin this approach are based on 'Health for All' principles of participation, empowerment, sustainability and a desire for equity in health (WHO 1978). The vehicles operationalising this approach to health promotion are based on settings, where people live and work, such as Healthy Cities, Health Promoting Schools, Health Promoting Hospitals and Healthy Workplaces. Its programmes are multi-level and include diverse yet complementary activities such as developing individual resources and social skills, strengthening community action and creating healthy public policy. Its conceptual robustness and value-added dimension relies on these diverse activities operating synergistically to promote health. It is the understanding of such processes that facilitates synergy and their interrelationship with health gain, that is central to health promotion.

However, because of the 'newness' of the subject the history of the development of health promotion has been one of promoting the subject through a form of missionary zeal and evangelism. This approach, epitomised by a subscription to symposia statements with rhetoric that reflects the desire to be taken seriously, coupled with programme developments that expand horizontally rather than vertically, has been necessary because the crucial issue has been profile and agenda setting. Statements from Ottawa (WHO 1986), Adelaide (WHO 1988), Sundsvall (WHO 1991) and Jakarta (WHO 1997) have all advocated the core or central role health promotion can and must play in the drive to improve health nationally and internationally.

Additionally programmes based on settings as cited above, such as the Healthy Cities (HCs) movement and the Health Promoting Schools (HPS) initiative, have striven for horizontal expansion (recruitment to the network). It is the case for example, that the HCs project now has 34 project cities in Europe alone and some 250 worldwide (Springett 1998) and the HPS has some 500 core schools in 40 European countries (HEA1997). This horizontal expansion is at the real expense of vertical development (deepening the programme) in a more limited number of cities and schools. This would have allowed an understanding of the process of programme and intervention development, which in turn would have enhanced the capacity to monitor and evaluate effectiveness.

Second, the statements which come out of Ottawa or Jakarta are important but they provide ammunition for the health promotion sceptics who might argue that the subject tries too hard to be all things to all people. Statements which argue for the abolition of war and poverty because they are the biggest

contributors to ill health are naive in the extreme and only mimic other grandiose conference statements concerned with population growth, social conditions or conflict resolution. Health promotion declarations and statements need to confine themselves to locating health within a larger social whole, but they need to reflect a rigorous theoretical research base that is designed to improve practice and make it more effective.

EFFECTIVENESS AND EVALUATION

This need to raise the profile of health promotion through programme expansion at the national and international levels has in many ways clouded clear approaches to evaluation and evidence of effectiveness. This is rather ironic given the 'lead' that health education and later, health promotion, gave in the quest for appropriate and suitable evaluation tools (Macdonald 1996). Earlier debates in health promotion were often surrounded by the call to consider the right methodology to evaluate the intervention (Gatherer *et al.* 1979, Green and Lewis 1986, Means and Smith 1988). It might be that in some ways, health promotion has suffered, from its self-inflicted demand to consider evaluative methods, by being too ambitious. Many of the evaluation techniques were based on an unrealistic idea of what health promotion could or even should achieve and were largely concerned with outcome data. This traditional biomedical approach to evaluation has received a great deal of criticism in recent years, and a consensus is undoubtedly emerging that an over concentration on outcome measures and indeed on quantitative data, is an outmoded and inappropriate way to measure the effectiveness of health promotion programmes and interventions (Nutbeam 1996, Allensworth 1994). This consensus is reflected in this volume. Lipsey *et al.* (1985) were among the first to identify the inherent problems of trying to evaluate the effectiveness of health promotion programmes through the adoption of experimental designs for research. They argued that because health promotion took place within a natural and complex setting (the community or society) it was impossible, even if desirable, to control for all the variables that might affect health. Further, they proposed that traditionally trained evaluators (biomedical researchers) might not be sufficiently skilled to carry out more pragmatic approaches to design given the increasingly naturalistic 'field' conditions.

This concern has been mirrored in more recent criticisms of the biomedical outcomes model of evaluation (Baum 1988, Raeburn 1992, Hepworth 1997). Essentially what the critics are arguing is that health promotion programmes and interventions need to be assessed in relation to the social and structural influences that determine health. They therefore need to adopt an approach to evaluation that implicitly acknowledges the need for outcome data but explicitly concentrates on process or illuminative data that helps us understand the nature of that relationship. This approach to evaluative research that recognises 'people variables'

and natural settings within the community has been applied to some interesting and testing case studies (Allison and Rootman 1996, Costongs and Springett 1997).

Within the current contract culture however, priority is given to practices that emphasise measurable outcomes (Ovretveit 1996). Centres being established to study evidence-based health (medical) care rely on the biomedical, logical-positivist paradigm, epitomised in the randomised control trial. Such centres require evidence utilising quantitative and empirical criteria (Sheldon *et al.* 1993). Health promotion finds this problematic and uncomfortable (Burrows 1996). It is often impossible to demonstrate causal links due to the complex interplay of variables. There are also inevitable time lags related to health status outcomes, which are often intergenerational.

Health promotion evaluative methodologies designed to measure effectiveness, unlike methods in other evidence-based health care interventions, have to consider how to gain an understanding of the processes involved in the planning and implementation of a programme. They also need to assess the impact the social and physical environment has on the programme. Process evaluation which may employ qualitative methods can offer critical and illuminating evidence of what happens during a programme's life (Macdonald *et al.* 1996). If we want to find out why a programme has achieved its goals and objectives or not, rather than whether it has, process or illuminative research should provide the answers.

Further, evaluation of large-scale health promotion programmes, such as the Healthy Cities movement (Davies and Kelly 1993) and Heartbeat Wales (Nutbeam *et al.* 1993), has proved difficult. This has been mainly due to the difficulty of isolating environmental and multimodal intervention effects and assessing their impact on health status outcomes. It has been suggested that even the processes of dissemination of such programmes through communities should be legitimate outcome targets for health promotion (Nutbeam *et al.* 1993). These may be termed 'intermediate outputs' (Whelan *et al.* 1993) or intermediate indicators, but are also useful process indicators. In this sense it is important for researchers in health promotion to acknowledge that their own training and disciplinary background along with their own value system will, to some extent, determine their approach to research methodology. With the new millennium there is a discernible movement towards the process and illuminative evaluative method. This will undoubtedly mean shifting the goal posts and refocusing on new measures of achievement. We would like to illustrate this by providing three examples of approaches to effectiveness that demonstrate an ability to respond to the need for an innovative way to consider health promotion and evaluation.

Intermediate indicators of success

It might be the case that conventional use of epidemiological indicators or behavioural outcomes are not the most appropriate way of measuring effectiveness

in relation to, for example, school based interventions. A cancer education programme in schools may have as its ultimate aim the reduction in morbidity and mortality from cancer, but it wouldn't be useful for school health promotion coordinators and teachers to put this forward as a goal since they will not generally be in a position to measure these outcomes. Further, the education programme in the school, which might highlight the 'benefits' of a particular diet, the risks associated with smoking and high alcohol consumption and the 'efficacy' of screening services may all be to little effect since the causal relationship between many of these factors and cancer is uncertain. School health promotion programmes often ignore other factors that impact on decision-making about behaviour and lifestyle. These decisions are often multi-determined and very difficult to evaluate. A more realistic and meaningful way of evaluating health promotion in schools would be to develop input proxy indicators that measured the inputs into cancer education programmes (e.g. teaching sessions or training of teachers in this area), combined with intermediate proxy indicators that measured impact of programmes (e.g. change in pupil knowledge or positive attitudes to cancer screening). With these input indicators there would be a need to assess policies that supported (or hindered) the cancer education programme (e.g. school meals policies, smoking policies) as part of a broad process evaluation of the programme implementation.

Needs assessment and Delphi

The Healthy Cities movement provides a second example of an innovative approach to evaluation even if the evaluative methodology is not uniform across the whole programme. For example Dam (1996) offers away of measuring the effectiveness of a research strategy designed to generate immigrant community health action in a city in the Netherlands. Through a variation on the Delphi technique to assess health needs, the researchers and community health workers developed a four stage approach to promoting community action in the area of health that resulted in community involvement and the establishment of a Health Information Centre. The Delphi variation involved including the immigrant community and the community care workers in the development of the design and content of a mental health programme. The design involved three rounds of open discussions about mental health, its determinants, its manifestations and the means of treating it. The discussions were constructed to use not only the knowledge of experts but to include the experiences of immigrants in the community.

The four stage approach linked a traditional epidemiological needs assessment, based on morbidity data but including standard community

profiling, with three other non-traditional stages to needs assessment. First, data from semi-structured interviews with community health care workers were collected. This informed the research team about the perceived needs of the immigrant community in relation to mental health care. Second, the next stage involved interviews with non-professional immigrants which helped to construct individual profiles of the values and culture of the community, their expectations and experiences and their use of health care resources. Finally, and in what constituted the fourth stage, the Delphi method variation was involved, in which the first three stages were presented to community focus groups as a starting point for the discussions.

This approach to research provided a basis for process evaluation which proved to be invaluable in the assessment of the programme in terms of how the four stages worked (or didn't) and how the process might be changed in order to produce a better dialogue between care workers and providers and the community they serve.

Storytelling as case study

The technique described above provides an appropriate precursor to the next illustration of a new approach to evaluation which concentrates on process and intermediate indicators. The 'using stories in health promotion practice approach' seems to have been first realised in Canada (Labonte and Feather 1996), although it may have its roots in the oral history tradition of historical narrative data collection. This method of evaluation includes storytelling by sample group, as a critical component of a case study approach. A case approach links together a broad range of views and reflections of a study sample, which may include practitioners, community members and others.

Case story descriptions, analysed and aggregated, may provide a much wider and informed data set than other forms of qualitative research because they can gather information on past events, on individuals in the community, on organisational settings and such like that help us understand why events happened rather than how and when. This form of reflection can help us understand the evaluation process and help to generalise learning into more effective practice.

These three illustrative cases of process evaluation provide some measure of the imaginative use of intermediate indicators that help in the search for realistic and meaningful qualitative effectiveness studies. Many more are provided in this context in subsequent chapters in this book. However if these intermediate or process indicators are to become established and accepted then there is an urgent need to develop a taxonomy or even a hierarchy of qualitative process evaluative methodologies that can rival the quantitative hierarchy that