

**ESRC UK Centre for Evidence Based Policy and Practice:  
Working Paper 9**

# **Evidence Based Policy and Practice: Cross Sector Lessons From the UK**

**Sandra Nutley  
Huw Davies  
Isabel Walter**

Research Unit for Research Utilisation  
Department of Management  
University of St Andrews

**Email** [smn@st-and.ac.uk](mailto:smn@st-and.ac.uk)

**URL:** <http://www.st.and.ac.uk/~cppm/home.htm>

© August 2002: ESRC UK Centre for Evidence Based Policy and Practice; Research Unit for Research Utilisation

Sandra Nutley is Reader in Public Policy and Management, Huw Davies is Professor of Health Care Policy and Management, and Isabel Walter is Research Fellow at RURU which is a member of the ESRC Network for Evidence Based Policy and Practice (EvidenceNetwork) which is co-ordinated by the ESRC UK Centre for Evidence Based Policy and Practice, Queen Mary, University of London.

This paper was written while Sandra Nutley was a Visiting Research Fellow at the Centre. It was to be the Keynote Paper for the Social Policy Research and Evaluation Conference, Wellington, New Zealand, 2-3 July 2002, now postponed until 2003.

## **Abstract**

This paper draws out some of the key lessons to have emerged from the experience of trying to ensure that public policy and professional practice are better informed by evidence. Focuses on four requirements for improving evidence use: agreement on what counts as evidence in what circumstances; a strategic approach to the creation of evidence in priority areas, with systematic efforts to accumulate robust bodies of knowledge; effective dissemination of evidence to where it is most needed, and the development of effective means of providing wide access to knowledge; and initiatives to ensure the integration of evidence into policy and encourage the utilisation of evidence in practice. Looks at how these issues have been approached in the UK, with comment on a range of public sector initiatives. The key theme to emerge is that simple and unproblematic models of evidence based policy and practice – in which evidence is created by experts and drawn on as necessary by policy makers and practitioners – fail as either accurate descriptions or effective prescriptions.

*Key words:* evidence based policy; evidence based practice; research utilisation

## **Acknowledgements**

This work was supported by the Economic and Social Research Council (ESRC Award Reference: H141251001), for which we are duly grateful. However the views expressed are those of the authors and should not be attributed to any other agency or individual.

The purpose of the Working Paper series of the ESRC UK Centre for Evidence Based Policy and Practice is the early dissemination of outputs from Centre research and other activities. Some titles may subsequently appear in peer reviewed journals or other publications. In all cases, the views expressed are those of the author(s) and do not necessarily represent those of the ESRC.

# Evidence based policy and practice: cross sector lessons from the UK

## Introduction

There is nothing new about the idea that policy and practice should be informed by the best available evidence. Researchers and analysts have long worked with and in government to provide evidence based policy advice, and the specific character of the relationship between social research and social policy in Britain was shaped in the 19<sup>th</sup> and 20<sup>th</sup> centuries (Bulmer, 1982). The 1960s represented a previous high point in the relationship between researchers and policy makers (Bulmer, 1986; Finch, 1986). However, during the 1980s and early 1990s there was a distancing and even dismissal of research in many areas of policy, as the doctrine of ‘conviction politics’ held sway.

In the UK it was the landslide election of the Labour government in 1997, subsequently returned with a substantial majority in 2001, that revitalised interest in the role of evidence in the policy process. In setting out its modernising agenda, the government pledged: ‘we will be forward-looking in developing policies to deliver outcomes that matter, not simply reacting to short-term pressures’ (Cabinet Office, 1999). The same White Paper proposed that being evidence based was one of several core features of effective policy making, a theme developed in subsequent government publications (see Box 1 at the end of the paper).

In the wake of the modernising agenda, a wide range of ambitious initiatives has been launched to strengthen the use of evidence in public policy and practice. A cross sector review of some of these can be found in the book *What works: evidence-based policy and practice in public services* (Davies, Nutley and Smith, 2000) and in two special issues of the journal *Public Money and Management* (19(1) 1999 and 20(4) 2000). In order to give a flavour of the range, scope and aims of these developments, an overview of two generic initiatives is provided in Box 2 and some sector-specific developments are outlined in Box 3.

This paper seeks to draw out some of the key lessons to have emerged from the experience of trying to ensure that public policy and professional practice are better informed by evidence than has hitherto been the case. It does this by highlighting four requirements for improving evidence use and considering progress to date in relation to each of these.

Because the use of evidence is just one imperative in effective policy making, and in acknowledgement that policy making itself is always inherently political, a caveat seems appropriate at this point. Further, as professional practice is usually heavily contingent on both client needs and local context, warnings are similarly needed in this area. The term ‘evidence based’ when attached as a modifier to policy or practice has become part of the lexicon of academics, policy people, practitioners and even client groups. Yet such glib terms can obscure the sometimes limited role that evidence can, does, or even should,

play. In recognition of this, we would prefer ‘evidence influenced’, or even just ‘evidence aware’ to reflect a more realistic view of what can be achieved. Nonetheless, we will continue the current practice of referring to ‘evidence-based policy and practice’ (EBPP) as a convenient shorthand for the collection of ideas around this theme which have risen to prominence over the past two decades. On encountering this term, we trust that readers will recall our caveat and moderate their expectations accordingly.

## **Four requirements for improving evidence use in policy and practice**

If evidence is to have a greater impact on policy and practice, then four key requirements would seem to be necessary before such an agenda can be developed. These are presented in sequence for convenience rather than because of strong prior beliefs that the sequencing reflects either necessary temporal positioning or relative importance. These key requirements are:

1. Agreement as to what counts as evidence in what circumstances
2. A strategic approach to the creation of evidence in priority areas, with concomitant systematic efforts to accumulate evidence in the form of robust bodies of knowledge
3. Effective dissemination of evidence to where it is most needed and the development of effective means of providing wide access to knowledge
4. Initiatives to ensure the integration of evidence into policy and encourage the utilisation of evidence in practice

The remainder of this paper takes each of these areas in turn to explore both diversity across the public sector, and to make some tentative suggestions about how the EBPP agenda may be advanced.

### **The nature of evidence**

In addressing the EBPP agenda in 1999, the Cabinet Office Strategic Policy Making Team described evidence as:

Expert knowledge; published research; existing statistics; stakeholder consultations; previous policy evaluations; the Internet; outcomes from consultations; costings of policy options; output from economic and statistical modelling. (SPMT, 1999)

This broad and eclectic definition clearly positions *research*-based evidence as just one source amongst many, and explicitly includes informal knowledge gained from work experience or service use: ‘There is a great deal of critical evidence held in the minds of both front-line staff...and those to whom policy is directed.’ (SPMT, 1999)

Such eclecticism, whilst inclusive and serving to bring to the fore hitherto neglected voices such as those of service users, also introduces the problems of selection, assessment and prioritising of evidence. A survey of policy making in 2001 (Bullock et

al, 2001) found that a more limited range of evidence appeared to be used by government departments: domestic and international research and statistics, policy evaluation, economic modelling and expert knowledge. It is instructive that egalitarianism in sources of evidence is not present equally in all parts of the public sector.

Health care, for example, has an established ‘hierarchy of evidence’ for assessing what works. This places randomised experiments (or, even better, systematic reviews of these) at the apex; observational studies and professional consensus are accorded much lower credibility (Hadorn et al, 1996; Davies and Nutley, 1999). This explicit ranking has arisen for two reasons. First, in health care there is a clear focus on providing evidence of efficacy or effectiveness: which technologies or other interventions are able to bring about desired outcomes for different patient groups. The fact that what counts as ‘desired outcomes’ is readily understood (reductions in mortality and morbidity, improvements in quality of life) greatly simplifies the methodological choices. The second reason for such an explicit methodological hierarchy lies in bitter experience: much empirical research suggests that biased conclusions may be drawn about treatment effectiveness from the less methodologically rigorous approaches (Schulz et al, 1995; Kunz and Oxman, 1998; Moher et al, 1998).

In contrast to the hierarchical approach in health care, other sectors such as education, criminal justice and social care are riven with disputes as to what constitutes appropriate evidence, there is relatively little experimentation (especially compared with health care), and divisions between qualitative and quantitative paradigms run deep (Davies et al, 2000). This happens in part because of the more diverse and eclectic social science underpinnings in these sectors (in comparison to the natural sciences underpinning much of health care), and in part because of the multiple and contested nature of the outcomes sought. Thus knowledge of ‘what works’ tends to be influenced greatly by the kinds of questions asked, and is in any case largely provisional and highly context dependent.

These observations suggest that if we are indeed interested in developing an agenda in which evidence is to be more influential, then first of all we need to develop some agreement as to what constitutes evidence, in what context, for addressing different types of policy/practice questions. This will involve being more explicit about the role of research vis-à-vis other sources of information, as well as greater clarity about the relative strengths and weaknesses of different methodological stances. Such methodological development needs to emphasise a ‘horses for courses’ approach, identifying which policy and practice questions are amenable to analysis through what kinds of specific research techniques. Further, it needs to emphasise methodological pluralism, rather than continuing paradigmatic antagonisms; seeking complementary contributions from different research designs rather than epistemological competition. The many stakeholders within given service areas (e.g. policy makers, research commissioners, research contractors, and service practitioners) will need to come together and seek broad agreement over these issues if research findings are to have wider impact beyond devoted camps. One initiative within social care to tackle such an agenda is outlined in Box 4.

## **A strategic approach to knowledge creation**

Whichever part of the public sector one is concerned with, one observation is clear: the current state of research based knowledge is insufficient to inform many areas of policy and practice. There remain large gaps and ambiguities in the knowledge base, and the research literature is dominated by small, ad hoc studies, often diverse in approach and of dubious methodological quality. In consequence, there is little accumulation from this research of a robust knowledge base on which policy makers and practitioners can draw. Furthermore, additions to the research literature are more usually research producer-driven than led by research users' needs.

Recognition of these problems has led to many attempts to develop research and development (R&D) strategies to address these problems (see Box 5 for an example in education). Developing such strategies necessarily requires addressing a number of key issues:

- What research designs are appropriate for specific research questions, and what are the methodological characteristics of robust research?
- What is an appropriate balance between new primary research and the exploitation of existing research through secondary analysis?
- How can the need for rigour be balanced with the need for timely findings of practical relevance?
- What approaches can be used to identify gaps in current knowledge provision, and how should such gaps be prioritised?
- How should research be commissioned (and subsequently managed) to fill identified gaps in knowledge?
- How can research capacity be developed to allow a rapid increase in the availability of research based information?
- How are the tensions to be managed between the desirability of 'independent' researchers free from the more overt forms of political contamination, and the need for close co-operation (bordering on dependence) between research users and research providers?
- How should research findings be communicated and, more importantly, how can research users be engaged with the research production process to ensure more ready application of its findings?

Tackling these issues is the role of effective R&D strategies, but gaining consensus or even widespread agreement will not be easy. The need to secure some common ground between diverse stakeholders does, however, point the way to more positive approaches. The traditional separation between the policy arena, practitioner communities and the research community has largely proven unhelpful. Much of the more recent thinking in this area now emphasises the need for partnerships if common ground is to be found (Laycock, 2000; Nutley et al, 2000).

## **Effective dissemination and wide access**

Given the dispersed and ambiguous nature of the existing evidence base, a key challenge is how to improve access to robust bodies of knowledge. Much of the activity built around supporting the EBPP agenda has focused on searching for, synthesising, and then disseminating current best knowledge from research. Thus the production of systematic reviews has been a core activity of such organisations as the Cochrane Collaboration (health care), the Campbell Collaboration (broader social policy, most notably criminal justice), the NHS Centre for Reviews & Dissemination (health care again), and the Evidence for Policy and Practice Information (EPPI) Centre (education). Despite such activity, a major barrier to review efforts is the significant cost involved in undertaking a systematic review – estimated at around £55,000 per review (Gough, 2001).

Systematic reviews seek to identify all existing research studies relevant to a given evaluation issue, assess these for methodological quality and produce a synthesis based on the studies selected as relevant and robust. The methodology for undertaking such reviews has been developed in the context of judging the effectiveness of medical interventions and tends to focus on the synthesis of quantitative (particularly experimental) data. This leads to questions about the extent to which such an approach can or should be transferred to other areas of public policy (Boaz et al, 2002). There are examples of systematic review activity outside of clinical care (see Box 6) but concern remains that the approach needs to be developed in order to establish successful ways of:

- Involving users in defining problems and questions
- Incorporating a broader range of types of research in reviews
- Reviewing complex issues, interventions and outcomes

One of the aims of the ESRC's EvidenceNetwork is to contribute to methodological developments on these issues (Boaz et al, 2002) and its work to date has included exploration of a 'realist' approach to synthesis (Pawson, 2001 a and b).

Whether the focus is on primary research or on the systematic review of existing studies, a key issue is how to communicate findings to those who need to know about them. The strategies used to get research and review findings to where they can be utilised involve both dissemination (pushing information from the centre outwards) and provision of access (web based and other repositories of information that research users can tap into).

Much effort has gone into improving the dissemination process, and good practice guidance abounds (see Box 7 for one example). This has developed our appreciation of the fact that dissemination is not a single or simple process; different messages may be required for different audiences at different times. It appears that the promulgation of individual research findings may be less appropriate than distilling and sharing pre-digested research summaries. Evidence to date also suggests that multiple channels of communication – horizontal as well as vertical networks as well as hierarchies – may need to be developed in parallel (Nutley and Davies, 2000).

Despite improvements in our knowledge about effective dissemination, one main lesson has emerged from all of this activity. This is that pushing information from the centre out is insufficient and often ineffective: we also need to develop strategies that encourage a ‘pull’ for information from potential end users. By moving our conceptualisations of this stage of the EBPP agenda away from ideas of passive dissemination and towards much more active and holistic change strategies, we may do much to overcome the often disappointing impact of evidence seen so far (Nutley et al, 2000).

### **Initiatives to increase the uptake of evidence**

Increasing the uptake of evidence in both policy and practice has become a preoccupation for both policy people and service delivery organisations. The primary concern for those wishing to improve the utilisation of research and other evidence is how to tackle the problem of underuse, where findings about effectiveness are either not applied, or are not applied successfully. However, concerns have also been raised about overuse, such as the rapid spread of tentative findings, and about misuse, especially where evidence of effectiveness is ambiguous (Walshe and Rundall, 2000). The introduction to this paper outlined a myriad initiatives aimed at improving the level of evidence use in public policy and professional practice. This section focuses attention on the integration of evidence into policy but it also includes a few words on ways of getting evidence to inform professional practice.

Recent government reports aimed at improving the process by which policy is made set out a number of recommendations for increasing evidence use (see Box 8). These include mechanisms to increase the ‘pull’ for evidence, such as requiring spending bids to be supported by an analysis of the existing evidence base, and mechanisms to facilitate evidence use, such as integrating analytical staff at all stages of the policy development process. The need to improve the dialogue between policy makers and the research community is a recurring theme within government reports. It is sensible that such dialogues should not be constrained by one policy issue or one research project. This raises questions about what the ongoing relationship between policy makers and external researchers should be. Using the analogy of personal relationships, it has been suggested that promiscuity, monogamy and bigamy should all be avoided. Instead, polygamy is recommended, where policy makers consciously and openly build stable relationships with a number of partners who each offer something different, know of each other and can understand and respect the need to spread oneself around (Solesbury, 1999).

One of the problems with many of the recommendations about how to improve evidence use in the policy making process is that they are rarely themselves evidence based. Or, if there is evidence to support a particular course of action, this evidence is rarely cited. Although *Better policy-making* (Bullock et al, 2001) provides 130 examples of good practice from a diverse range of departments, initiatives and policy areas, these are not necessarily representative or evaluated. Instead they aim to illustrate professional, interesting and innovative approaches to modernising policy making. If we look elsewhere, there is some empirical research that has identified a number of circumstances when research evidence is more likely to be incorporated into policy (Box 9). This list of circumstances should serve to remind us that while it is tempting to think of evidence

entering the policy process as part of a rational decision making process, reality is often far more messy and overtly political than this. There are at least four ways in which evidence might influence policy (see Box 10) and the instrumental use of research is in fact quite rare (Weiss, 1980). It is most likely where the research findings are non-controversial, require only limited change and will be implemented within a supportive environment: in other words, when they do not upset the status quo (Weiss, 1998).

Once we acknowledge that evidence is used in various ways by different people in the policy process, government does not appear to be the 'evidence-free zone' that is sometimes depicted. The evidence that is used is wide-ranging. Policy makers need information, not only about the effectiveness of a procedure and the relationship between the risks and the benefits, but also about its acceptability to key constituencies, its ease and cost of implementation. They use information in the way that they do because the central challenge is not just to exercise sound technical judgement, but to 'conciliate between all the interests and institutions of the society, and between the interests and institutions represented in the policy-making process' (Perri 6, 2002: 4). Four particular groups of policy makers have been distinguished by the way in which they are driven by their situations to organise and use information differently (see Box 11). The quest for evidence based policy should not, it is argued, be driven by a desire to reduce policy making to technical analysis (the province of the chess players in Box 11). Accommodating divergence rather than imposing convergence appears to be the key to a well functioning democratic polity.

Policy making is ultimately about delivering outcomes – 'desired change in the real world' (Cabinet Office, 1999). Turning policy into concrete action in pursuit of policy goals has focused attention on the implementation of policy at the multiple points of contact between service users and public service provision. Thus in parallel with a renewed emphasis on evidence at a policy level, there has been the development of a similar set of concerns at practice level. Within health care there has been extensive examination of what works in achieving practitioner change. The Effective Practice and Organisation of Care Group (EPOC), part of the Cochrane Collaboration, has undertaken systematic reviews of a range of interventions designed to improve the practice of individual health care professionals. A summary of findings from these (NHSCRD, 1999) suggests that the passive dissemination of educational information and traditional continuing professional development (CPD) approaches are generally ineffective. Many other interventions were found to be of variable effectiveness including audit and feedback, opinion leaders, interactive CPD, local consensus models and patient-mediated interventions. More positively, financial incentives, educational outreach visits and reminder systems were found to be consistently effective. Most importantly, the most effective strategies were multi-faceted and explicitly targeted identified barriers to change.

A key message to emerge from this research within health care is that the change process must reflect and be tailored to the complex nature of research implementation. For example, the *Effective Health Care Bulletin* on 'getting evidence into practice' (NHSCRD, 1999) argues that interventions need to develop and be guided by a

‘diagnostic analysis’ that identifies factors likely to influence the proposed change. This acknowledges that nothing works all the time, and emphasises the importance of the local circumstances that mediate implementation strategies. There is also increasing recognition of the role of the wider organisational and systemic contexts within which evidence is used: practitioners do not and cannot work in isolation.

Overall, a striking feature of the existing literature on ways of improving the uptake of evidence in both policy and practice is the common conclusion that the way forward should be to develop better, ongoing interaction between evidence providers and evidence users (Nutley et al, 2002). This echoes Huberman’s (1987) call for ‘sustained interactivity’ between researchers and practitioners throughout the process of research, from the definition of the problem to the application of findings. Closer and more integrated working over prolonged periods would seem to be capable of fostering cross-boundary understanding. Doing so, however, is not cheap or organisationally straightforward, and it raises some serious concerns about independence and impartiality. Nonetheless, examples of successful development of policy from suggestive evidence, policy that is then seen through to practice change and beneficial outcomes, often display an unusual degree of partnership working (see Box 12). The merits of this and other models for increasing research impact are currently the subject of a cross sector review (see Box 13).

## **Conclusions**

This overview of cross sector experience has identified some progress but also many outstanding challenges facing EBPP in public services in the UK. A number of lessons emerge in relation to our four requirements for improving evidence use in policy and practice and these are summarised below.

### **The nature of evidence**

1. Research is only one source of evidence for public policy and practice.
2. Agreement as to what counts as evidence should emphasise a ‘horses for courses’ approach. ‘Ways and means’ matrices – ways of understanding related to the most appropriate means for achieving each kind of understanding – are likely to be more beneficial in the long run than simple hierarchies of evidence.

### **A strategic approach to knowledge creation**

3. Stakeholder involvement in the creation of wide-ranging R&D strategies is crucial.
4. Such strategies need to address capacity building as well as priority areas for future research.

### **Effective dissemination and wide access**

5. Systematic reviews have the potential to increase access to robust bodies of knowledge but the cost of such reviews and the need for further methodological development in this area are barriers to progress.

6. We know much about the features of effective dissemination but even good dissemination has its limits – ‘pushing’ evidence out is not enough, there is also a need to develop the ‘pull’ for evidence from potential end users.

### **Increasing the uptake of evidence**

7. Uptake needs to be defined broadly – there are many ways in which evidence might be utilised appropriately.
8. There are a myriad initiatives aimed at increasing the use of evidence in policy and practice but there is little systematic evidence on the effectiveness of these.
9. Tentative evidence suggests that multi-faceted strategies that explicitly target barriers to change work best.
10. Partnership models, which encourage ongoing interaction between evidence providers and evidence users, may be the way forward.

The key theme that emerges is that simple and unproblematic models of EBPP – where evidence is created by research experts and drawn on as necessary by policy makers and practitioners – fail as either accurate descriptions or effective prescriptions. The relationships between research, knowledge, policy and practice are always likely to remain loose, shifting and contingent.

The vision should be of a society where analysts and experts are ‘on tap but not on top’ – a society, which is active in its self-critical use of knowledge and social science (Etzioni, 1968, 1993). In such a vision research evidence may well be used as a political weapon but ‘when research is available to all participants in the policy process, research as political ammunition can be a worthy model of utilisation’ (Weiss, 1979). Of course, a problem arises when certain groups in society do not have access to research and other evidence, or their ability to use this evidence is restricted because of their exclusion from the networks that shape policy decisions.

Recent developments in the provision of evidence over the Internet may encourage more open debates that are not confined to those operating in traditional expert domains. Similarly, the establishment of intermediary bodies (such as NICE and SCIE – see Box 3) to digest existing evidence may facilitate the opening up of evidence based policy and practice debates.

An optimistic scenario for the future is that initiatives that encourage consultation, through devices like policy action teams and service planning fora, will widen the membership of policy and practice communities. The involvement of wider interests in these teams is likely to set a different agenda and lead to a more practice based view of policy and delivery options. The use of research and other evidence under such a scenario is likely to be diffuse. To operate effectively within such a scenario, policy makers and service planners will require a broad range of skills, and developing appropriate analytical skills may be the least of their worries.

### ***Box 1: Modernising policy making***

The UK government's vision of modernised policy making was set out in ***Professional Policy Making*** (SPMT, 1999). Nine core features were identified:

- Forward looking: takes a long term view of the likely impact of policy
- Outward looking: takes account of influencing factors and learns from elsewhere
- Innovative and creative: questions the status quo and is open to new ideas
- Evidence based: uses the best available evidence from a wide range of sources
- Inclusive: is fair and takes account of the interests of all
- Joined up: works across institutional boundaries and considers implementation
- Reviews: keeps policy under review
- Evaluates: builds evaluation into the policy process
- Learns lessons: learns from experience of what works and what does not

A year later ***Adding It Up*** (PIU, 2000) called for a fundamental change in culture to place good analysis at the heart of policy making and outlined what this was likely to entail. Recommendations included better analytical training for civil servants and more external scrutiny of the analytical models used by government.

In 2001 three further documents were published by different government departments to provide some insight into the use and value of evidence within the broader context of modernised policy making:

- ***Better Policy Delivery and Design*** (PIU, 2001) found that effective policy delivery depends on a policy design that takes into account knowledge about what works. Because research more often gives pointers for policy rather than definitive answers, it calls for a policy process that uses evidence from pilots and incorporates ongoing monitoring and evaluation.
- ***Modern Policy Making*** (NAO, 2001) examines how departments identify and manage the risks of policies not achieving their intended outcomes and not delivering value for money. It suggests that effective risk management in policy making depends on a reliable evidence base that draws on a range of information sources. The report highlights the need for high quality analytical skills within departments to make best use of evidence.
- ***Better Policy-Making*** (Bullock et al, 2001) reports on 'the most comprehensive survey' undertaken of modern policy making. Case studies spell out the many benefits of using evidence in policy making as well as barriers to an evidence based approach. They also demonstrate how using evidence can support other features of modern policy making.

***Box 2: Two generic initiatives to enhance the use of evidence in policy making***

The **Centre for Management and Policy Studies** (part of the Cabinet Office) has been given the task of promoting practical strategies for evidence based policy making, which it is taking forward through:

- The development of ‘knowledge pools’ to promote effective sharing of information
- Training officials in how to interpret, use and apply evidence
- A policy hub web site providing access to knowledge pools, training programmes and government departments’ research programmes
- Implementing the findings of *Adding it up* with the Treasury, such as placements to bring academics into Whitehall to carry out research projects.

For more information visit <http://www.cmps.gov.uk>

The **ESRC UK Centre for Evidence Based Policy and Practice** is an initiative funded by the Economic and Social Research Council. The Centre, together with an associated network of university centres of excellence, is intended to foster the exchange of social science research between policy, researchers and practitioners. It aims to:

- improve the accessibility, quality and usefulness of research
- develop methods of appraising and summarising research relevant to policy and practice
- inform and advise those in policy making roles, through its dissemination function.

For more information visit <http://www.evidencenetwork.org>

### ***Box 3: A cross-sector overview of some EBPP initiatives***

#### **Criminal justice**

The criminal justice field is mainly characterised by systematic/top-down approaches to getting evidence into practice. For example, the **What Works** initiative within the Probation Service of England and Wales has taken lessons from small-scale programmes and wider research and applied them to redesign the whole system of offender supervision (see Underdown and Ellis, 1998; Furniss and Nutley, 2000). Similarly, in 1999 the Home Office launched the **Crime Reduction Programme**, which represents a major investment by the government in an evidence based strategy to pilot new ways of tackling crime. The overall objectives of the programme are to:

- achieve long term and sustained reduction in crime through implementing What Works and promoting innovation into mainstream practice
- generate a significant improvement in the crime reduction knowledge base
- deliver real savings through the reduction of crime and improved programme efficiency and effectiveness

Further information is available from <http://www.crimereduction.gov.uk/crimered.htm>. There is also a forthcoming review of the programme (Homel, forthcoming)

#### **Education**

Since the late 1990s a somewhat bewildering array of dispersed initiatives has been launched to improve the supply, accessibility and uptake of research evidence in education. These include initiatives to:

- **develop a research and development strategy** – the National Educational Research Forum (see Box 5)
- **increase the evidence base for education** such as the ESRC's Teaching and Learning Research Programme (<http://www.tlrp.org>)
- **systematically review the existing evidence base** through the Evidence for Policy and Practice Information (EPPI) Centre (<http://eppi.ioe.ac.uk>), which has just completed the first wave of reviews (in teaching English, leadership, inclusion, gender, further education and assessment)
- **encourage teacher use of research evidence**, such as those sponsored by the Teacher Training Agency (<http://www.canteach.gov.uk>)

### ***Box 3: A cross-sector overview of some EBPP initiatives (continued)***

#### **Health Care**

The arrival of the first NHS research and development strategy in 1991 (Peckham, 1991) represented a major shift in the approach to research in health care. It aimed to ensure that research funding was directed to areas of agreed need and was focused on robust research designs. Subsequent initiatives have sought to:

- **systematically review the existing evidence base** such as the Cochrane Collaboration (<http://www.cochrane.org>) and the NHS Centre for Reviews and Dissemination (<http://www.york.ac.uk/inst/crd>)
- **collate and disseminate evidence on effectiveness**, for example the clinical practice guidelines promulgated by the Royal Colleges (<http://sign.ac.uk>)
- **provide robust and reliable (prescriptive) guidance on current best practice** such as the government sponsored National Institute for Clinical Excellence (NICE – <http://www.nice.org.uk>) which reviews evidence on the effectiveness and cost-effectiveness of health technologies
- **establish review structures** to ensure that practice is informed by evidence, such as clinical audit and clinical governance activities (<http://www.doh.gov.uk/clinicalgovernance>)
- **change individual clinician behaviour** via a new approach to clinical problem solving – this has been the specific aim of the Evidence Based Medicine movement (see Sackett et al, 1996)

#### **Social Care**

Until recently initiatives in social care have been somewhat fragmented and localised. These include:

- The **Centre for Evidence-based Social Services**, based at the University of Exeter and working with a group of local authorities in the South West of England (<http://www.ex.ac.uk/cebss>)
- **research in practice**, an initiative to disseminate childcare research to childcare practitioners and to enable them to use it (<http://www.rip.org.uk>)
- **Barnardo's and 'What Works'** – Barnardo's is the UK's largest childcare charity. It has produced a series of overviews of evidence on effective interventions relevant to children's lives and has sought to ensure that its own practice is evidence based (see <http://www.barnardos.org.uk>).

More recently a government sponsored **Social Care Institute for Excellence (SCIE)** has been established. It aims to improve the quality and consistency of social care practice and provision by creating, disseminating and working to implement best practice guidance in social care through a partnership approach. It forms part of the government's Quality Strategy for Social Care but has operational independence (see <http://www.scie.org.uk>).

#### ***Box 4: Types and Quality of Knowledge in Social Care***

In 2002 the Social Care Institute for Excellence (SCIE) commissioned a research project to:

- Identify and classify types of social care knowledge (Stage 1), and
- Develop ways of assessing their quality that will be acceptable to a wide spectrum of sometimes conflicting opinion (Stage 2).

In Stage 1 the research project is to produce a 'ways and means' matrix that identifies:

- Categories of knowledge, or 'ways' of understanding social care
- The research strategies and designs that are used as the 'means' towards each kind of understanding.

In Stage 2 there will be no attempt to develop the kind of hierarchy of evidence that operates in medicine. A key criterion of quality will be 'fitness for purpose' or the degree to which a given type of evidence addresses the question posed. The final quality standards are likely to be expressed in terms of exemplars, vignettes and case studies of good practice, rather than as a simple rating system.

The project is to involve significant participation by service users, practitioners and other experts in the production of the classification framework and the quality standards.

For further information about this project consult the EvidenceNetwork website (<http://www.evidencenetwork.org>) or email the project co-ordinator: Annette Boaz ([a.l.boaz@qmul.ac.uk](mailto:a.l.boaz@qmul.ac.uk)).

#### ***Box 5: National Educational Research Forum R&D Strategy***

A forum of researchers, funders and users of research evidence with responsibility for developing a strategic framework for research in education. The focus of its work includes:

- Identifying research priorities
- Building research capacity
- Co-ordinating research funding
- Establishing criteria for the quality of research
- Considering how to improve the impact of research on policy and practice

*Source:* Sebba, 2000

***Box 6: Examples of systematic reviews in the ‘real world’ (Petticrew, 2001)***

<b>Review question</b>	<b>Methods</b>	<b>Authors' conclusions</b>
Does spending more money on schools improve educational outcomes?	Meta-analysis of effect sizes from 38 publications	Systematic positive relation between resources and student outcomes
Do women or men make better leaders?	Review of organisational and laboratory experimental studies of relative effectiveness of women and men in leadership and managerial roles	Aggregated over organisational and laboratory experimental studies in sample, male and female leaders were equally effective
Does sexual orientation of the parent matter?	Review investigating impact having homosexual as opposed to heterosexual parents has on emotional wellbeing and sexual orientation of child	Results show no differences between heterosexual and homosexual parents in terms of parenting styles, emotional adjustment, and sexual orientation of child(ren)
Are fathers more likely than mothers to treat their sons and daughters differently?	Review of 39 published studies	Fathers' treatment of boys and girls differed most in areas of discipline and physical involvement and least in affection or everyday speech. Few differences for mothers
Is job absenteeism an indicator of job dissatisfaction?	Review of 23 research studies	Yes; stronger association was observed between job satisfaction and frequency of absence than between satisfaction and duration of absence
Are jurors influenced by defendants' race?	Meta-analytic review of experimental studies	Results are consistent in finding that race influences sentencing decisions
Is there a relation between poverty, income inequality, and violence?	Review of 34 studies reporting on violent crime, poverty, and income inequality	Results suggest that homicide and assault may be more closely associated with poverty or income inequality than rape or robbery

<b><i>Box 7: Improving dissemination</i></b>	
<b>Recommendations for research commissioners</b>	<b>Recommendations for researchers</b>
<ul style="list-style-type: none"> <li>• Time research to deliver solutions at the right time to specific questions facing practitioners and policy-makers</li> <li>• Ensure relevance to current policy agenda</li> <li>• Allocate dedicated dissemination and development resources within research funding</li> <li>• Include a clear dissemination strategy at the outset</li> <li>• Involve professional researchers in the commissioning process</li> <li>• Involve service users in the research process</li> <li>• Commission research reviews to synthesise and evaluate research</li> </ul>	<ul style="list-style-type: none"> <li>• Provide accessible summaries of research</li> <li>• Keep the research report brief and concise</li> <li>• Publish in journals or publications that are user friendly</li> <li>• Use language and styles of presentation that engage interest</li> <li>• Target material to the needs of the audience</li> <li>• Extract the policy and practice implications of research</li> <li>• Tailor dissemination events to the target audience and evaluate them</li> <li>• Use a combination of dissemination methods</li> <li>• Use the media</li> <li>• Be proactive and contact relevant policy and delivery agencies</li> <li>• Understand the external factors likely to affect the uptake of research</li> </ul>
<p><i>Source:</i> abstracted from Barnardo’s R&amp;D Team, 2000</p>	

<b><i>Box 8: Encouraging better use of evidence in policy making</i></b>	
<b>Increasing the pull for evidence</b>	<b>Facilitating better evidence use</b>
<ul style="list-style-type: none"> <li>• Require the publication of the evidence base for policy decisions</li> <li>• Require departmental spending bids to provide a supporting evidence base</li> <li>• Submit government analysis (such as forecasting models) to external expert scrutiny</li> <li>• Provide open access to information – leading to more informed citizens and pressure groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage better collaboration across internal analytical services (e.g. researchers, statisticians and economists)</li> <li>• Co-locate policy makers and internal analysts</li> <li>• Integrate analytical staff at all stages of the policy development process</li> <li>• Link R&amp;D strategies to departmental business plans</li> <li>• Cast external researchers more as partners than as contractors</li> <li>• Second more university staff into government</li> <li>• Train staff in evidence use</li> </ul>
<p><i>Source:</i> abstracted from PIU, 2000; Bullock et al, 2001; DCDASG, 2002</p>	

### ***Box 9: Evidence into policy***

Attention is more likely to be paid to research findings when:

- The research is timely, the evidence is clear and relevant, and the methodology is relatively uncontested.
- The results support existing ideologies, are convenient and uncontentious to the powerful.
- Policy makers believe in evidence as an important counterbalance to expert opinion, and act accordingly.
- The research findings have strong advocates.
- Research users are partners in the generation of evidence.
- The results are robust in implementation.
- Implementation is reversible if need be.

*Source:* adapted and extended from Finch, 1986; Rogers, 1995; Weiss, 1998

### ***Box 10: Types of research utilisation***

#### ***1. Instrumental use***

Research feeds directly into decision making for policy and practice.

#### ***2. Conceptual use***

Even if policy makers or practitioners are blocked from using findings, research can change their understanding of a situation, provide new ways of thinking and offer insights into the strengths and weaknesses of particular courses of action. New conceptual understandings can then sometimes be used in instrumental ways.

#### ***3. Mobilisation of support***

Here, research becomes an instrument of persuasion. Findings – or simply the act of research – can be used as a political tool and can legitimate particular courses of action or inaction.

#### ***4. Wider influence***

Research can have an influence beyond the institutions and events being studied. Evidence may be synthesised. It might come into currency through networks of practitioners and researchers, and alter policy paradigms or belief communities. This kind of influence is both rare and hard to achieve, but research adds to the accumulation of knowledge that ultimately contributes to large-scale shifts in thinking, and sometimes action.

*Source:* adapted from Weiss, 1998

***Box 11: The policy making game***

The policy process can be thought of as a relationship between groups of policy makers in four different situations, each driven by their situation to use information differently.

<b>The groups</b>	<b>Their game</b>
<b><i>Leaders and cabinet ministers</i></b>	<b><i>Poker</i></b> Such leaders are essentially competitive individuals. The evidence they seek is information about opportunities – what might be acceptable, what might make one’s mark. All the better if this information is not available to others. They are poker players with information, played for high stakes, each player trying to bluff and call bluffs while keeping from other players any information about the cards they hold.
<b><i>Professional policy analysts working in civil service departments</i></b>	<b><i>Chess</i></b> Policy analysts are encouraged to work collaboratively and share information with other members of their departmental team. The evidence they use is formal data, organised into structured databases. They are essentially chess players with information; all the pieces are out in the open for other players to see, the rules governing moves are tightly defined, but the numbers who can play by these rules are very limited.
<b><i>Backbench elected members</i></b>	<b><i>Snap!</i></b> Opportunities for influence for backbenchers are few and often seem to come at random. Faced with this situation they have a rather eclectic approach to gathering unstructured information and evidence, which is used opportunistically. The game they play is Snap! They do not deal the cards, the opportunities for influence seem to come randomly, and the game of the policy process has little structure.
<b><i>Faction members united around some ideological commitment</i></b>	<b><i>Football</i></b> Factions are essentially sect-like. The evidence they seek is about the merits of principled action and information about deviations from principle. The game they play with information is football; the key challenge is to hold the team together and keep the fervour of the fans.

*Source:* abstracted from Perri 6, 2002

### ***Box 12: Getting evidence into policy and practice: repeat victimisation***

In 1983 the Home Office gave crime prevention a higher profile and established a new policy unit – the Crime Prevention Unit (CPU). Unusually for that time, a small team of research staff was located within the unit – a team that eventually evolved into the Police Research Group (PRG) in 1992. It quickly became clear that there was very little information available to the police on what works in crime prevention. In order to fill this lacuna a series of research projects was commissioned.

An early research project proved to be particularly influential. The remit given to the researchers was to ‘find an area with a high burglary rate, make it go down, and tell us how you did it’. An inter-agency project team was brought together of academics, police, probation staff and others. Their analysis showed that there was a great deal of ‘repeat victimisation’: if a house had been burgled there was a significantly higher risk that it would be burgled again. This led the team to focus on victims as a way of reducing crime. By a variety of means they protected victims in a demonstration project, and reduced repeat victimisation to zero in seven months. The burglary rate in this demonstration area also fell overall by 75% over the following three years.

The challenge then became to get the findings of this research to impact more generally on crime prevention policy and practice. Contrary to the normal pattern of handing such a task over to a policy unit, it was agreed that ongoing responsibility for the programme of work should remain in the PRG.

In rolling out the research findings a great deal of effort was put into engaging practitioners (particularly police forces) in the repeat victimisation story. A specially constituted task force used a variety of means to reach practitioners:

- A repeat victimisation liaison officer was designated in each police force, whose task it was to ensure that the research was properly disseminated – in effect a local champion.
- A series of liaison officer meetings was arranged to share good practice and iron out any emerging practical difficulties in implementing strategies to tackle repeat victimisation.
- A publication designed specifically for practitioners at middle manager level was produced (*Preventing repeat victimisation: the police officer’s guide*).
- A computerised database of good practice was established within the PRG for use by UK police forces.

Probably the most significant action in forcing repeat victimisation onto the police agenda, however, was its adoption as one of the Home Secretary’s police performance indicators for the prevention of crime. By 1998 all forces claimed to be able to identify repeat victims to some degree; all but one force was able to identify repeat victims of domestic burglary, and all forces had developed a strategy to tackle such crimes.

*Source:* adapted from Laycock, 2000

### ***Box 13: Models of research impact: a cross sector review***

The Learning and Skills Development Agency (LSDA) is committed to making its research useful and useable to the learning and skills sector. It has planned a major research programme on research impact. The Models of Research Impact project is intended to provide a foundation for subsequent work in this programme. Its specific objectives are:

- To review literature on research impact
- To identify and assess a range of practices
- To characterise models, strategies and actions that would be useful in the learning and skills sector
- To develop guidance for research designers and managers

The first two objectives (literature review and practice assessments) will be pursued across a number of sectors (in particular criminal justice, education, health care and social care). The latter two objectives (models, strategies and guidance) will be focused on meeting the need of the learning and skills sector at national, regional and local levels. The project runs from April to November 2002.

The project is being undertaken by a consortium of three UK research partners: the UK Centre for Evidence Based Policy and Practice at Queen Mary, University of London; The Policy Research Institute at Leeds Metropolitan University; and the Research Unit for Research Utilisation at the University of St Andrews.

For further information about this project consult the EvidenceNetwork website (<http://www.evidencenetwork.org>) or email the project co-ordinator, William Solesbury (email: [w.b.solesbury@qmul.ac.uk](mailto:w.b.solesbury@qmul.ac.uk)).

## References

- Barnardo's R&D Team (2000) *What works. Making connections: linking research and practice* Ilford: Barnardo's, 107pp  
Available from  
[http://www.barnardos.org.uk/shop/acatalog/Catalogue\\_Other\\_125.html](http://www.barnardos.org.uk/shop/acatalog/Catalogue_Other_125.html)  
Summary at <http://www.jrf.org.uk/knowledge/findings/socialcare/910.asp>
- Boaz, A., Ashby, D. and Young, K. (2002) *Systematic reviews: what have they got to offer evidence based policy and practice?* ESRC UK Centre for Evidence Based Policy and Practice, Queen Mary, University of London, 28pp (Working Paper 2)  
<http://www.evidencenetwork.org/Documents/wp2.pdf>
- Bullock, H., Mountford, J. and Stanley, R. (2001) *Better policy-making* London: Cabinet Office, Centre for Management and Policy Studies, 83pp  
[http://www.cmps.gov.uk/better\\_policy\\_making.pdf](http://www.cmps.gov.uk/better_policy_making.pdf)
- Bulmer, M. (1982) *The uses of social research: social investigation in public policy-making* London: Allen and Unwin, 184pp
- Bulmer, M. (1986) *Social science and social policy* London: Allen & Unwin, 272pp (Contemporary Social Research Series 12)
- Cabinet Office (1999) *Modernising government* London: Stationery Office, 66pp. Cm 4310 <http://www.cabinet-office.gov.uk/moderngov/whtpaper/index.htm>
- Davies, H.T.O. and Nutley, S.M. (1999) 'The rise and rise of evidence in health care' *Public Money and Management* Jan/Mar 19(1) pp9-16
- Davies, H.T.O., Nutley, S.M. and Smith, P.C. (eds) (2000) *What works? Evidence-based policy and practice in public services* Bristol: Policy Press, 380pp
- Directorate of Corporate Development and Analytical Services Group (DCDASG) (2002) Internal reports on Better Policy Making (not currently in the public domain)  
Edinburgh: Scottish Executive
- Etzioni, A. (1968) *The active society: a theory of societal and political processes* New York: Free Press, 698pp
- Etzioni, A. (1993) *The spirit of community: rights, responsibilities and the communitarian agenda* New York: Crown Publishers, 323pp
- Finch, J. (1986) *Research and policy: the use of qualitative methods in social and educational research* London: Falmer Press, 275pp (Social Research and Educational Studies 2)
- Furniss, J. and Nutley, S.M. (2000) 'Implementing what works with offenders – the Effective Practice Initiative' *Public Money and Management* Oct/Dec 20(4) pp23-28
- Gough, D. (2001) personal communication cited (p.16) in Boaz, A., Ashby, D. and Young, K. (2002) *Systematic reviews: what have they got to offer evidence based policy and practice?* ESRC UK Centre for Evidence Based Policy and Practice,

- Queen Mary, University of London (Working Paper 2)  
<http://www.evidencenetwork.org/Documents/wp2.pdf>
- Hadorn, D.C., D. Baker, et al (1996). 'Rating the quality of evidence for clinical practice guidelines' *Journal of Clinical Epidemiology* 49(7) pp749-54
- Hamel, P. (forthcoming) *Investing to deliver: reviewing the implementation of the Crime Reduction Programme* London: Home Office
- Huberman, M. (1987) 'Steps toward an integrated model of research utilization' *Knowledge: Creation, Diffusion, Utilization* Jun 8(4) pp586-611
- Kunz, R. and Oxman, A.D. (1998) 'The unpredictability paradox: review of empirical comparisons of randomised and non-randomised clinical trials' *British Medical Journal* 31 Oct 317(7167) pp1185-90  
<http://www.bmj.com/cgi/content/full/317/7167/1185>
- Laycock, G. (2000). 'From central research to local practice: identifying and addressing repeat victimisation' *Public Money and Management* Oct/Dec 20(4) pp17-22
- Moher, D., Pham, B. et al (1998) 'Does quality of reports of randomised trials affect estimates of intervention efficacy reported in meta-analyses?' *Lancet* 22 Aug 352(9128) pp609-13
- National Audit Office (NAO) (2001) *Modern policy-making: ensuring policies deliver value for money* London: Stationery Office, 60pp  
[http://www.nao.gov.uk/publications/nao\\_reports/01-02/0102289.pdf](http://www.nao.gov.uk/publications/nao_reports/01-02/0102289.pdf)
- NHS Centre for Reviews and Dissemination (NHSCRD) (1999) 'Getting evidence into practice' *Effective Health Care Bulletin* Sep 5(1) 16pp  
<http://www.york.ac.uk/inst/crd/ehc51warn.htm>
- Nutley, S.M. and Davies H.T.O. (2000) 'Making a reality of evidence-based practice: some lessons from the diffusion of innovations' *Public Money and Management* Oct/Dec 20(4) pp35-42
- Nutley, S.M., Davies, H.T.O. and Tilley, N. (2000) 'Getting research into practice' *Public Money and Management* Oct/Dec 20(4) pp3-6
- Nutley, S.M., Davies, H.T.O. and Walter, I. (2002) *From knowing to doing: a framework for understanding the evidence-into-practice agenda* St Andrews University, Research Unit for Research Utilisation (Discussion Paper 1) <http://www.st-and.ac.uk/~cppm.htm>
- Pawson, R. (2001a) *Evidence based policy: I. In search of a method* ESRC UK Centre for Evidence Based Policy and Practice, Queen Mary, University of London, 22pp (Working Paper 3) <http://www.evidencenetwork.org/Documents/wp3.pdf>
- Pawson, R. (2001b) *Evidence based policy: II. The promise of 'realist synthesis'* ESRC UK Centre for Evidence Based Policy and Practice, Queen Mary, University of London, 20pp (Working Paper 4) <http://www.evidencenetwork.org/Documents/wp4.pdf>
- Peckham, M. (1991) 'Research and development for the National Health Service' *Lancet* 10 Aug 338(8763) pp367-71

- Performance and Innovation Unit (PIU) (2000) *Adding it up: improving analysis and modelling in central government* London: Stationery Office, 106pp  
<http://www.cabinet-office.gov.uk/innovation/2000/adding/adding.shtml>
- Performance and Innovation Unit (PIU) (2001) *Better policy delivery and design: a discussion paper* London: Cabinet Office, 21pp <http://www.cabinet-office.gov.uk/innovation/papers/betterpolicy.pdf>
- Perri 6 (2002) Can policy making be evidence-based? *MCC: Building Knowledge for Integrated Care* Feb 10(1) pp3-8  
[http://www.elsec.org.uk/bases\\_floor/managecc/feb2002/feb2002.htm](http://www.elsec.org.uk/bases_floor/managecc/feb2002/feb2002.htm)
- Petticrew, M. (2001) 'Systematic reviews from astronomy to zoology: myths and misconceptions' *British Medical Journal* 13 Jan 322(7278) pp98-107  
<http://www.bmj.com/cgi/content/full/322/7278/98>
- Rogers, E. M. (1995) *Diffusion of innovations: 4<sup>th</sup> edition* New York: Free Press, 518pp
- Sackett, D.L., Rosenberg, W., Gray, J.M., Haynes, R.B. and Richardson, W.S. (1996) 'Evidence based medicine: what it is and what it isn't' *British Medical Journal* 13 Jan 312(7023) pp71-72 <http://www.bmj.com/cgi/content/full/312/7023/71>
- Schulz, K. F., Chalmers, I. et al (1995). 'Empirical evidence of bias: dimensions of methodological quality associated with estimates of treatment effects in controlled trials' *Journal of the American Medical Association* 1 Feb 273(5) pp408-12
- Sebba, J. (2000) 'Education: using research evidence to reshape practice' *Public Money and Management* Oct/Dec 20(4) pp8-10
- Solesbury, W. (1999) *Research and policy* (unpublished seminar presentation). Available from the author at ESRC UK Centre for Evidence-Based Policy and Practice, Queen Mary College, University of London. Email: [w.b.solesbury@qmul.ac.uk](mailto:w.b.solesbury@qmul.ac.uk)
- Strategic Policy Making Team (SPMT) (1999) *Professional policy making for the twenty first century* London: Cabinet Office, 78pp <http://www.cabinet-office.gov.uk/moderngov/policy/index.htm>
- Underdown, A. and Ellis, T. (1998) *Strategies for effective offender supervision: report of the HMIP What Works Project* London: Home Office, HM Inspectorate of Probation, 188pp <http://www.homeoffice.gov.uk/hmiprob/seoslist.htm>
- Walshe, K and Rundall, T.G. (2001) 'Evidence-base management: from theory to practice in health care' *The Milbank Quarterly* Sep 79(3) pp429-57
- Weiss, C.H. (1979) 'The many meanings of research utilisation' *Public Administration Review* 39(5) pp426-31
- Weiss, C.H. (1980) 'Knowledge creep and decision accretion' *Knowledge: Creation, Diffusion and Utilization* Mar 1(3) pp381-404
- Weiss, C.H (1998) 'Have we learned anything new about the use of evaluation?' *American Journal of Evaluation* 19(1) pp21-33

Web addresses correct at 25.7.02