ABOUT ARACY

The Australian Research Alliance for Children and Youth (ARACY) was founded by a group of eminent experts and organisations in reaction to increasingly worrying trends in the wellbeing of Australia’s young people.

ARACY is a national organisation with members based across Australia.

ARACY asserts that by working together, rather than working in isolation, we are more likely to uncover solutions to the problems affecting children and young people.

ARACY is a broker of collaborations, a disseminator of ideas and an advocate for Australia’s future generation.

ARACY has two primary goals:

1. To promote collaborative research and agenda setting for children and young people
2. To promote the application of research to policy and practice for children and young people.

This paper is one of a series commissioned by ARACY to translate knowledge into action. This series of papers aims to convert research findings into practical key messages for people working in policy and service delivery areas.

The ARACY Evidence into Action papers may also be the focus of workshops or seminars, including electronic mediums.

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What works in Collaboration

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BACKGROUND AND INTRODUCTION

You travel faster if you travel alone, but you travel further if you travel with others (African proverb)

This report is one of a number of pieces of work on collaboration commissioned by ARACY. It addresses the ‘What Works’ question – what do we know about the effectiveness of different types of collaboration, and what do we need to know? What is the status of various claims about the extent to which collaboration ‘works’ and the things that make it work? What kinds of literature might throw light on these questions and what is known about the costs of collaboration in relation to benefits? This last can be particularly important since cost/benefit questions can raise problems for organisations where almost inevitably, the bottom line affects the salaries and reputations of those at the top.

Given the large and diverse literature on collaboration, and the heartsink potential of any report which concludes that ‘more research is needed,’ a section of this report is given over to two case studies of collaborations between research, policy and practice. The first of these is the Cochrane Collaboration, the second the WHO Safe Communities Collaboration. These two were selected on the following bases:

- by any standards, they each combine a remarkable level of activity and outputs with a high level of reflection, evaluation, and a spirit of collaboration.
- they have a presence in wealthy, middle income and low income countries, and both have a particularly strong presence in Australia.
- while the collaborations are large, each unit of activity tends to be small, so there are lessons for both large and small collaborations
- these are relatively enduring collaborations, offering the opportunity to assess effectiveness more reliably than the often transient collaborations which need to be forged in smaller organisations.
What do we mean by collaboration?

Collaborate

/kəˈləbərət/ verb 1 work jointly on an activity or project. 2 cooperate traitorously with an enemy.

— DERIVATIVES collaboration noun collaborationist noun & adjective collaborative adjective collaborator noun.

— ORIGIN Latin collaborare ‘work together’.

Source: Compact Oxford English Dictionary

The term collaboration is often used interchangeably with a whole range of terms denoting co-operative, sharing, inter-disciplinary, multi-disciplinary, participatory or networking arrangements. While it might be possible to distinguish these conceptually, (and indeed, Brown and Keast (2003) do so in an attractively alliterative manner in relation to what they call the ‘five Cs’ – co-location, communication, co-ordination, collaboration and convergence), for the purpose of this report, a simple overarching definition will suffice. The Compact Oxford English Dictionary (Box 1) gives two definitions for the verb ‘to collaborate.’ While the term now carries a strongly positive ring, for those in occupied France during and after the second world war, the term became synonymous with betrayal and fraternisation with the enemy; the term ‘collabo’ an insult. The sense in which the word is used here is the first one, relating to working jointly on an activity or a project. Indeed, in the Shorter Oxford English Dictionary, the definition is ‘to co-operate, especially in literary, artistic or scientific work’. The areas of collaboration which form the focus of the discussion here relate to policy, research and practice.
Policy, political and funding drivers

In addition to globalisation and the growth of virtual networking over the internet (see for example Chen 2002), one of the drivers for collaboration has been a recognition among politicians and senior policy advisors that working in silos does not work well in addressing complex problems. When a new government was elected in the UK in 1997 for instance, an early catchphrase was ‘joined up government.’ Whether this was a new idea, or a new spin on an old idea, became immaterial as funding streams began to be tied to programs of work which spanned government departments, local and national government, the voluntary sector and (in some cases) the private sector. The website Joined Up, set up by the Policy Hub in the UK Civil Service describes some of these processes.

http://www.policyhub.gov.uk/better_policy_making/joined_up.asp

Much the same kinds of efforts have been taking place worldwide, including joined up working to address housing disadvantage in Victoria


At the same time as governments across the world have been setting up multi-agency programs demanding collaborative working, research funders have been doing much the same thing, suggesting not only that people collaborate, but that they collaborate across disciplines and between the humanities and the sciences. Funding is a major incentive to change, although not the only one, and the urge to bring together the ‘two cultures’ of science and the arts is by no means new. CP Snow, the novelist and scientist had lectured on this in 1959 (Snow 1969), suggesting that poor communication between the arts and the sciences was a major hindrance to solving the world’s problems. The primary driver to collaborate, according to the literature, appears to be a problem solving one.
Levers and barriers to collaboration

The levers most frequently described in relation to good collaboration include leadership, funding, well-aligned goals, and good communication. Other ‘softer’ factors, such as gender (Oakley 2002) and altruism (Titmuss 1970), which one might expect from observation to be important levers, are less frequently described in the new collaboration literature, as are trust, mutuality and reciprocity (Fox 1974). Barriers as well as levers derive from leadership and funding. These may include: management styles directed towards the quick fix rather than what Kanter (1999) calls the ‘long march;’ the competitiveness which can accompany leadership, and a tendency to want control of resources. Accountability issues, as the director of the policy office of the auditor general in Perth has pointed out, may be unclear (Wilkins 2002). A good deal of collaboration is in effect about theatre and performance, and indeed there is a literature on collaborative theatre (see for instance Williams 1999). The performance aspect may offer levers through inspirational and charismatic leadership, but erect barriers if putting on a good collaborative show subsumes more fundamental aims of service provision, or fails to address the risks as well as the benefits of complex organisational forms where each participant may want to have a claim on good outcomes, but there is less enthusiasm for sharing risks, problems and failures.

WHAT WORKS?

A move towards collaboration as a core organisational feature requires time, resources and energy, which – since none of these are entirely elastic – will normally require a transfer of investment from other areas. The careful practitioner, manager or policy maker needs evidence on which to base their policies or interventions, including the ways in which they organise themselves. The What Works agenda is about using the best available
Evidence from a range of methods, and a range of experts, including those lay experts on the receiving end of interventions. Different research methods are more or less good at answering different kinds of research question. A randomised controlled trial, well conducted, can tell us which reading scheme is most likely to be helping children struggling to learn to read, but it cannot tell us the best way of ensuring the method with the best results is used, or that the children in greatest need are offered this support, or how to make the experience enjoyable for teacher and taught alike.

The various worldwide collaborations synthesizing research evidence have a great deal to offer to those of us who want to improve outcomes for children. Operating on a global level, they offer unrivalled opportunities for knowledge sharing and a degree of economy of effort and sharing of skills. But to what extent can the ‘what works’ question be answered in terms of the kinds of research methods which we would normally use to answer questions of effectiveness?

When, in the early 1990s, the author of this report, along with Barnardo’s colleagues, started work on an initiative to promote evidence-based practice in social care in the UK, the term ‘What Works’ was both challenging and to the point. It subsequently became the title of what was, and remains, a popular series of reviews of key areas of practice in child welfare and child public health, the first of which was published in 1995 (Macdonald and Roberts 1995). This continued in the early 2000s with a four year project funded by the UK’s Economic and Social Research Council which went under the title What Works for Children? (www.whatworksforchildren.org). This project, which dealt with finding, adapting and implementing research evidence was built on a longstanding collaboration between academics and Barnardo’s, and brought together service planners, those running services, those researching or evaluating interventions which underpin services, and those involved in policy development. Asking ‘what works’ has led to
important ancillary questions. What works for whom? Who decides what works? What happens when there is conflict between what works and what matters – in effect, can everything that counts be counted? The ‘what works?’ question may not always be explicit in the actions of those who seek to make things happen, or stop them happening, but an implicit theory about what works normally drives actions. This is as true for engineers, scientists and lawyers as it is for doctors, nurses, police officers, teachers, parents and other child care professionals working with children. Interestingly, ‘what works’ is a notion well understood by children from an early age. Some things work better than others; some things don’t work at all or do harm; the claim that things ‘work’ is not always well justified.

The history of interventions in children’s lives has been a mixed one. Many of the humanitarian advances in the way we treat our children have come from the work of those who set up the great charities. Who could now doubt that those interventions, which led to the provision of education for children, which addressed child labour, or which took children off the streets, have been a good thing? But not every welfare intervention in children’s lives has been quite so unambiguously beneficial. There are many instances where children were removed from their families and taken into residential care, in the belief that a fresh start was preferable to the family of origin. Then, there were instances where children with disabilities were segregated from their able bodied peers and their families, and co-located in schools providing physiotherapy and pools as well as education. We can assume that most of the philanthropists, policy makers and practitioners were motivated by theories, implicit or explicit, about the ways in which these actions might improve the lives of children in the here and now or in the long run. In medicine meanwhile, there were instances when doctors were readily removing a child’s tonsils and adenoids for sore throats, giving a hefty dose of oxygen to premature babies, giving drugs to prevent morning sickness to expectant mothers, in the assumption that this type of treatment would ‘fix’ things. We often think we know what works, and we are not always correct.
Current methods frequently judged adequate in evaluating interventions in children’s lives may not have been much help to us in judging, for instance, policies to remove children from their homes. A user study could well have come up with details of good inter-agency co-operation, and partnerships working well. If children and young people were themselves interviewed, some may well have said to the researchers: “It’s OK.” And a Quality Assurance strategy may have found that all the processes were splendidly carried out, that the travelling arrangement was satisfactory, and that resources were well suited to the task in hand. A theory of change approach would have been able to suggest good theoretical reasons why this might be a worthwhile intervention, and a series of steps put in place to measure progress. What we would not have known is whether this kind of intervention in children’s lives was an effective way of looking after their best interests. Herein lies one of our difficulties. In many cases, the most important outcomes of the interventions we make are not known for many years, and it may be difficult to distinguish the effects of our interventions from the fact that children and young people change as they grow up. Much of the literature on collaboration makes precisely the point that collaborations may not be sufficiently long lasting to see the outcomes (positive or negative) of what they were set up to achieve.

What has changed in recent years has been a greater understanding that in order to understand ‘what works’ we need more than having our hearts in the right place and good ideas. This means that while many of us are (appropriately) impatient for positive change for children, there is some recognition that it may be also be appropriate to be sceptical of the quick fix. This is as likely to be true for re-organisations and new management strategies as it is for new miracle interventions to deal with challenging behaviour, to sort out reading problems, or to address drug misuse.
How do we know what works?

If, instead of asking the question ‘What Works in Collaboration?’, we were to ask ‘what works in reducing inequalities in child health?’ or ‘what works in improving outcomes for young people in trouble with the law?’ There might be a less extensive body of evidence than we might like, but it would be clear what kinds of questions we should be asking, and what kinds of literature and research methods might give us an answer to the underlying questions.

A systematic literature search on the bald question of ‘what works’ in collaboration was not a feasible option, given the huge range of literature on collaboration in very different disciplines. However, Appendix I, prepared by Dr Lisa Arai, provides some pointers as a first step to looking at what could be done, and the kinds of search terms and databases that might be used. It should be emphasized that this search is simply an example, representing a preliminary intelligent scan of some of the literature which others might like to follow up. Another approach to looking at the literature might be a mapping or scoping exercise across disciplinary boundaries, but with a strong focus on studies of effectiveness.

How can effectiveness be assessed?

Ideally, for those of us who aspire to evidence-informed services, any new intervention, or change in the way in which services are delivered should be chosen because a review of the existing evidence suggests that this course of action is most likely to result in the best possible outcomes for the children and families with whom we work. That said, we know that we can place more confidence in some kinds of evidence than others. This section of the report describes the kinds of evidence on which we might rely in assessing whether or not an intervention is likely to be effective. Evidence-informed practice has particular relevance when there is some doubt about the best course of action in the management of a child welfare problem or a way of delivering services. Understanding what makes for effective collaboration, and the kinds
of impact this might have on short, medium and long term outcomes is one such field.

A basic step in identifying good evidence to underpin practice (Rosenberg and Donald, 1995) is to formulate the question from the perspective of end point users. What are the issues which are making the biggest difference to children’s lives according to them and those closest to them, parents, teachers and other carers? Many research questions have an underlying agenda supporting those who ask them. Radiologists tend to call for more radiology; social workers for more social work and researchers for more research. These may well be justified, but which are the calls which, with limited resources, will make the most meaningful differences to the outcomes for children and families?

In the case of ‘what works in collaboration’ the key question for end point users might be – is good collaboration between service providers and others going to improve my reading/offending behaviour/sense of safety in my community a little, a lot, or not at all. Or might it do harm by shifting resources from one imperfect organizational model to another? Might the very factors that make collaboration work well reduce the time available for direct services?

While the literature in most of this report is international, much of the methodological literature described in the section below is from the UK. It is used here to illustrate general messages in relation to the ways in which we might explore whether collaboration ‘works,’ but as ever, it needs to come with a ‘health warning’ that much of what we do is culturally and contextually specific. It is for this reason that attention is given to international collaborations in the section which follows this one (Arai et al, 2005).
What are the methods that help us understand what works?

Systematic reviews

Systematic reviews is a method of critically appraising, summarising and attempting to reconcile the evidence concerning a particular problem (Petticrew and Roberts 2006). The value of systematic reviews is that they provide a synthesis of robust studies in a particular field of work which no practitioner, however diligent, could possibly hope to read themselves.

Systematic reviews differ from traditional narrative reviews in a number of ways:

- The objectives of the review and the methods used are specified.
- The materials and methods to be used are specified in advance, for example, the criteria for inclusion or exclusion of studies.
- They seek to identify and review all relevant studies.
- They assess the methodological soundness of the studies they include.
- The review can be replicated by others addressing the same objectives using the same materials and methods.

Not only do these tell us what is already known about a problem but they also point us in the direction of what remains to be known.

Systematic reviews are thus unlike “reviews of the studies I could find”, “reviews of the authors I admire,” “reviews which leave out inconveniently inconclusive findings or findings I don’t like,” and “reviews which support the policy or intervention I intend to introduce.” As Petticrew (2000) has demonstrated, systematic reviews have been used to answer questions, such as ‘Are jurors influenced by the defendant’s race?’ (Sweeney and Haney,
1992) and ‘Does the sexual orientation of parents matter in terms of parenting style, emotional adjustment or sexual orientation of children?’ (Allen and Burrell, 1996). Over the last few years, there has been a burgeoning of work on the inclusion of qualitative and other studies in systematic reviews (Lucas et al, 2007a; 2007b; Miller et al 2007; Dixon Woods et al 2006) following work on earlier criteria developed to aid in the systematic review of qualitative research (Popay et al, 1998).

Relevance to What Works in Collaboration

Although it would be possible to carry out a series of reviews looking at a range of questions relating to the effectiveness of collaboration, this would be a long term project, and one where any commissioner would need to assess the costs and benefits, given what is likely to be relatively scant effectiveness literature, and literature from other fields which might be difficult to fully synthesize. For the purposes of this report, a search of the Cochrane library was carried out, and identified 179 records where the term collaboration was used in the title, abstract, or as a keyword in a review. Of these, only two looked at collaboration as an organizational form. One of these describes the effectiveness of the WHO Safe Communities collaboration (Spinks et al, 2005) and is included in Section III below, while the second looks at Interventions to promote collaboration between doctors and nurses (Zwarenstein and Bryant 2000) In summary, the authors found that increased collaboration between nurses and doctors reduced costs without any apparent harm, and improved staff satisfaction and understanding of patient care. The trials did not assess patient satisfaction. The authors make the point that the interventions appear to have been designed without explicit recourse to theories of behaviour change, and with little investigation of determinants of, or barriers to interdisciplinary collaboration, such as differences in power and interdisciplinary struggles for dominance and autonomy. Among their research recommendations are the need for more work on appropriate outcomes, including user (patient) outcomes.
Surveys

Surveys do not themselves enable us to assess what works. However, they can provide powerful descriptive feedback following policy changes. Examples in the UK include Meltzer’s (1994) work on day care, and Maclagan’s (1993) work on young people and the benefits gap, which showed that a significant minority of young pregnant women were claiming but not getting benefits. Recent advances in web based survey techniques can make this a quick and relatively inexpensive way to gather data.

Relevance to What Works in Collaboration
Surveys can shed light on the gaps that can exist between the good intentions of organisational and policy changes and the working reality. This can help us explore reasons why things might not be working according to plan. The collaboration self assessment tool for instance, referred to in the section below on evaluation, if response rates are high and the results well interpreted to account for bias, has the potential to provide useful data in organisations’ self-monitoring of their collaborative efforts.

The cohort studies

Cohort studies, including those in Australia, New Zealand and the UK (Nicholson and Rempel 2004: Wadsworth et al, 1991) interview or otherwise follow up people at more than one point in time and are often a good source of data on a statistical association between early childhood events (or service interventions) and later outcomes. They collect health and social data from children at intervals, often from shortly after birth well into adulthood. Data are collected from the same people over a period of months or years, so that information on a child at, say, 1, 5 or 9 years old, can be related to the same child (now adult) at 19 or 29 years. These studies can enable us to identify factors which seem to have a protective effect. In other words they
can help us understand why some children, given a poor start in life, do well. (Wadsworth, 1991; Power and Hertzman 1997; Power et al., 1991). Cohort studies can give some indication of the effects of changing social and family policies in a particular jurisdiction, as well as the effects of particular ways of living family life.

Although, over a period of time, some people become lost to follow-up, data from these studies remain a remarkable repository of information on the growth and development of children and young people. As the children in the samples progress into adulthood, they allow researchers to explore associations between early development and experiences, and later characteristics.

Relevance to What Works in Collaboration

Although one might envisage a study in which a cohort of children receiving services based on collaborative relationships between service providers might be followed up over a period of time, in order to assess whether there were differences between their outcomes and those of children with similar problems provided with more traditional services which were less joined up (but possibly more specialized, or more targeted), a cohort study would be unlikely to be the method of choice to learn about what works in collaboration, given the difficulties of working out exactly what was making a difference in complex systems.

Qualitative research (including user views)

Users want to have services which make a difference. They are well-placed to understand that some things work better than others, and that not every way of delivering a service is equally helpful. Providing services which are likely to benefit users (and unlikely to harm them) can involve them in the planning, developing and monitoring of those services. Some of the most important research questions are those which are addressed by qualitative research. These are the questions which enable us to know whether a particular
intervention is acceptable and important to the people to whom it is offered, and what they consider the important outcomes to be. Those to whom we offer health or welfare services have a reservoir of expertise on their own lives, and they may also have views on the kinds of intervention, and the ways of delivering it which may affect effective implementation.

However, regarding clients’ views on the effectiveness of an intervention as the sole criterion for judging success ignores a substantial body of evidence on the poor correlation between the strength of client approval and the impact of the intervention when considered by third parties (Macdonald et al, 1992). The fit between satisfaction (or dissatisfaction) with a service and the achievement of the desired outcome is not as good as it might be (McCord 1981). Users of services frequently like the people who provide it, and are grateful. This does not always mean that they are getting the most effective help that they could. While our capacity to consult and to some extent collaborate with children, including marginalised children, has improved in recent years, methodological problems remain. Children, no less than adults, frequently want to please. Good interviewing involves building relationships (Oakley 1981). ‘Spray on’ focus group consultations may provide good sound-bites, but are unlikely to produce sound evidence. As well as the methodological problems of reliability and validity in these areas, ethical problems, for instance, payment of interviewees, have to be resolved (McNeish 1999).

Without qualitative studies, we would be hard pressed to understand the social worlds of those with whom we work, and without this understanding, we cannot begin to conceptualise interventions which will be acceptable, let alone effective.
Relevance to What Works in Collaboration

While qualitative research is incapable of allowing us to know what works in collaboration, it can tell us a good deal about what matters to those involved, and the perceptions of service users and service providers. A study of lessons from cross-cutting units based on qualitative interviews with senior civil servants and a practice exchange workshop identifies problems and captures achievements in policy development and delivery.

The headline findings on collaboration include:

- as early as possible clarify strategic focus and resources available;
- recognise the different audiences - from ministers to the field - and develop strategies for creating appropriate relationships with each;
- communication is key to achieving objectives - invest enough time, and resources, and draw on specialist communications staff who understand the units’ vision and goals;
- retain some direct links with the users of the service or programmes to ensure effective feedback, even if management or support of programmes is conducted through devolved structures;
- plan carefully for set-up, recognise the dangers of staff burn-out, pay attention to their workload and work environment.

While a single study cannot give an answer to ‘what works,’ (and nor does it claim to), it can provide useful ideas and reflections which might be tested in other environments, and some of the interviews reported cast light on the problems of implementation in collaborative exercises, which are relevant to a good understanding of levers and barriers.

"The traditional attitude is that policy is developed by insiders and then handed over to outsiders to implement. We discovered that this is wrong, we needed to pay far more attention to implementation and the knowledge that outsiders had about how to do that.”

"We set out to explode the civil service myth that policy is for bright people and implementation is for the less bright. Making it happen is in the ‘hard’ box.”
And in relation to evaluation:
"on a day to day basis, the measure of success is our press coverage".
(Office of Public Management, 2002)

Turning to user views, rather than those of senior policy advisors, it is clear that users play a key role in the ‘what works’ question. The ability to collaborate with children and young people is still under development. The practice example below describes the ways in which the aspiration to listen to children and young people needs work to turn it into a reality:

LISTENING TO CHILDREN AND YOUNG PEOPLE

The Health Action Zone in one area of London, UK, commissioned a review of children and young people’s participation in order to:

- identify key individuals and agencies working to develop children and young people’s participation
- seek their views on why and how they were involving children and young people and the opportunities and barriers they faced
- review current and recent examples of involving young people from across the area
- identify innovative models of involving children and young people
- make recommendations for the development of a strategy for children and young people’s participation.

The researchers carried out a literature review, a postal questionnaire, telephone interviews and focus group interviews with groups of young people. Finally, a Have Your Say! event for children, young people and their workers was held.

WHAT DID THE REVIEW FIND?
There was widespread acceptance of the principle of participation. The extent to which participation was actually occurring varied. Young people were most commonly asked to comment on ideas for changing existing services or proposed new services. Fewer were involved in
evaluation or service delivery. More than half of the respondents had developed strategies to enable children and young people to participate and the majority of projects had a specifically appointed person to be responsible for the initiative.

**WHAT DIFFERENCE DOES PARTICIPATION MAKE?**

Some respondents were concerned that a great deal of information is collected but is not actually used. There were also concerns that adults were consulting children as an excuse for not acting themselves. Some of the young people spoken to in the focus groups had experienced participation in a negative way.

Both young people and adults benefited from participation, through the acquisition of new skills, confidence and ideas. This raised questions about developing skills for adults; developing skills for children; providing motivation and reward; building links with decision-makers; addressing organisational culture; lack of a coherent strategy; and, dedicated staff time.


In order to understand what works in collaboration, we need evidence of effect on outcomes, but without evidence from children and parents on the acceptability of different models of service provision, finding out what works in collaboration will be impossible.

**Randomised controlled trials**

If we are interested in exploring cause and effect, then randomised controlled trials (RCTs) provide the most compelling evidence. RCTs are studies in which one group (the experimental group) receives a particular intervention and another (the control group) receives a different intervention or none at all. If we want to ask, for instance, whether:

- sex education reduces the rate of teenage pregnancies;
• providing an income supplement for pregnant women at risk of a low birthweight baby results in fewer small babies

then a well-conducted randomised controlled trial will provide us with the best evidence of a causal relationship between an intervention and an outcome.

Relevance to What Works in Collaboration
We were unable to identify RCTs which explicitly address what works in collaboration, however, the Cochrane review of interventions to promote collaboration between nurses and doctors referred to above identified a number of trials. In relation to further research in this area, they report that rigorous evaluations of interventions to improve (in their case) nurse-doctor collaboration are difficult to conduct; the interventions are complex and the intermediate processes difficult to measure. However it is possible to design and conduct rigorous randomised trials of such interventions. As the interventions are almost always aimed at groups of doctors and nurses working in some kind of health care unit (for example, hospital wards), randomisation by cluster (units) is needed to prevent contamination (Zwarenstein and Bryant 2000).

Evaluation studies with non experimental designs
Research designs within this category are evaluated interventions but with no random allocation and no pre-intervention matching of groups, if indeed a comparison group is used at all. Taken singly, results based on studies using these designs are, at best, suggestive. However, confidence can be enhanced in two ways. Firstly, if a number of such studies produce similar results, then one can feel more confident that the intervention may be influencing the changes. Such a pattern would indicate that it might be worth investing the time and resources involved in experimental research to test these results further. Secondly, if experimental studies featuring similar procedures and approaches already exist, we can have more confidence in
interpreting the results of non-experimental studies. This approach cannot answer questions about cause and effect with any confidence, but it can provide a helpful and practical way to look at the progress of an intervention, and help align the progress of an initiative with what it intends to achieve in the long run.

**Relevance to What Works in Collaboration**

The following hypothetical situation highlights some of the key issues in non-experimental studies.

Suppose an organisation has decided that a key measure of its success will be effective collaboration in improving both the process and outcomes of services to children. Suppose that the organisation runs a service for young people in trouble with the law, and is involved in collaborative relationships with schools, with other service providers in health, social care, the juvenile justice system, funders, and policy makers. Suppose that meetings regularly take place between the key players, and that some goals become aligned, and information and data are shared. Suppose that the workers and the managers say that they are confident with the services, and the young people involved like what they are getting. Even if we were to suppose in addition to all of this that there are no unresolved issues around finances, or which outcomes or targets are given top priority, we would still need caution before asserting that ‘collaboration is effective.’

One of the ways in which these ‘wicked’ problems of evaluation have been dealt with has been through looking at proxy indicators of the kinds of things which are thought to be important in fostering good collaboration such as partnership synergy (Weiss et al, 2002). A problem in reliably assessing the effectiveness of collaboration, as the authors frankly point out, is that partnerships have difficulty in achieving visible outcomes, and indeed achieving these may take longer than the lifetime of many partnerships. The Partnership Self Assessment Tool http://www.cacsh.org/psat.html developed by the Center for the Advancement of Collaborative Strategies in Health in New York can help
to identify the partnership's strengths and weaknesses in areas that are known to be related to synergy - leadership, efficiency, administration and management, and sufficiency of resources. It also measures partners' perspectives about the partnership's decision-making process, the benefits and drawbacks they experience as a result of participating in the partnership, and their overall satisfaction with the partnership. The tool is designed to help partnerships see what is working well, and what might need to be adapted. Advice is given about the ways in which results might be used to build on strengths and address problems identified. What such a tool makes no claims to do is to show whether ‘collaboration works.’ It identifies some of the features thought to be associated with good synergistic collaborations, and makes an assessment tool available.

A further approach used in looking at whether complex interventions might work in the long term is the theories of change approach built on the good common sense that in order to achieve a goal, you need building blocks which identify the pathways for getting things done, and review them regularly. (Connell and Kubisch, 1998). An overview of this is provided online http://www.theoryofchange.org/ and this approach has been used internationally, including in the evaluation of the English Health Action Zones (Sullivan et al, 2002; Bauld et al 2005). Again, this is a tool for looking at some of the issues which might identify mediating factors which if adjusted or enhanced might enhance the desired long term outcomes.

These approaches cannot tell us, (and most authors using these approaches would not claim that these can tell us) ‘what works’ though there is a human tendency, particularly when future funding depends on success, to elide the distinction between positive results in these important background factors, and positive results in terms of positive outcomes. In order to assert more convincingly that ‘collaboration works,’ even in terms of the background factors, we would also need to be as certain as possible that:
- The opportunity costs of collaboration were taken into consideration
- An assessment was made of time spent in collaboration with fellow professionals; whether this was impacting (for good or for ill) on the time spent with young people

There are, however, some examples of where this has been done. One is key worker services for disabled children in the UK, which have consistently shown that families with key workers have better relationships with services, higher morale, less isolation and feelings of burden, better access to services, and fewer unmet needs (Greco et al, 2005a; 2005b). This is also one of the few studies of cost effectiveness in relation to a collaborative enterprise (Beecham et al, 2007).

COLLABORATION IN PRACTICE:

Cochrane and Campbell Collaborations, and the WHO Safe Model

Collaboration of course, is no new trick. For groups of hunter-gatherers to survive and flourish, a degree of collaboration, or at least co-working, division of labour, and co-operation, must have been in place. What has changed in recent years has been a growing recognition of the relative skills which different players bring to the table – and in many cases, a move away from the model of the individual professional, the single handed doctor, the lone scholar – and towards team working.

This part of the report describes two case studies of international collaboration. The first is the Cochrane Collaboration which brings together researchers, users, practitioners and policy makers to synthesize research evidence on health. Additional reference is made to its younger sister Campbell Collaboration where the fields of interest are broader – social welfare, education, and criminal justice. As well describing these
collaborative activities, there will be references to levers and barriers, successes and problems. The second collaboration described is the WHO Collaborating Centre on Safe Communities.

The basis on which these were selected is described in the introduction. Further relevant factors for their inclusion here are that:

- there are measures of success in terms of the aims and outputs of the collaboration, and the outcomes for users, as well as testimonials of the success of the collaboration
- they bring together the needs (and skills) of researchers, practitioners, policymakers and end-users

Cochrane Collaboration

What is the Cochrane Collaboration?
An international organisation that prepares, maintains, and makes accessible, systematic reviews of the evidence about the effects of healthcare interventions. It has:

- 11000+ active participants
- 2000+ completed Cochrane reviews
- 1400 more reviews under way, at published protocol stage
- An estimated 10 000 reviews envisaged
- Research in more than 80 countries
- A register of more than 300 000 studies

Adapted from Mallett et al, 2003.

No practitioner or user of a service, however skilled in speed reading, could hope to keep up with every study reported in their own field. One way of bringing together a whole body of evidence, and keeping it up to date as new studies appear, is through systematic reviews. The Cochrane Collaboration www.cochrane.org is an international not-for-profit and
independent organization, established in 1993. It produces and disseminates systematic reviews of healthcare interventions and promotes the search for evidence in the form of studies of interventions. The organization is inclusive of users (citizens), patients, doctors, nurses, allied health professionals and complementary practitioners, researchers, and decision markers. Like many not for profit and voluntary organizations, it is based on a vision of what needs to be done to address human problems rather than market principles.

**What works in making a collaboration collaborative?**

Story telling is a part of many of our cultures, and in a memorandum to the select committee on health in the UK in 2004, Iain Chalmers, founding father of the Cochrane Collaboration, wrote ‘I have a longstanding interest in improving the quality of evidence about the effects of treatments in health care, an interest that was prompted initially by realising that I had been harming my patients by relying on “eminence-based” rather than “evidence-based” guidance.’ (Select committee on Health, 2004). Chalmers was deeply influenced by the work of Archie Cochrane, an epidemiologist working in Wales (Cochrane 1972), and in particular, his commitment to the principle of equitable access to effective health care, and humane and dignified (and thus effective) care, when no cure was available. In 1992, Chalmers attracted funding from National Health Service, Research and Development (NHS R&D) in the UK to establish the first Cochrane Centre. By the time it opened, he had worked with many colleagues and friends worldwide who shared a vision of using to best effect what we already know from research through systematic reviews. He wrote: ‘this vision we shared could be translated into reality, but that this would not happen without wholehearted, generous-spirited international collaboration’. The first colloquium was held in Oxford in 1993, and it was agreed to establish the Cochrane Collaboration (Chalmers 2003).

Much of the work of Chalmers and his colleagues had been in the pregnancy and childbirth area (Enkin et al, 1989), an area which is now a well-populated part of the Cochrane Collaboration, with particularly strong links with service
users. Enabling and encouraging patients and carers not only to use the reviews, but to ask questions about what might be reviewed, and participate in the process is a particularly powerful way of getting research into practice. The main products of the Collaboration, the systematic reviews themselves, are done by collaborative review groups, which have responsibility for supporting the preparation and maintenance of reviews in specific areas (usually health problems, but also the organisation of care). The structure of the collaboration is a simple one, and the ethos collegial rather than hierarchical.

Cochrane Centres coordinate activities, primarily in language-defined regions, and are the main point of contact for the public. There are currently twelve of these around the world, and they support reviewers on issues such as training. The Review Groups produce Cochrane Reviews in health topic areas. The Steering Group is democratically elected, representing entities within the Collaboration, and sets policy for the organization. There is a Secretariat to administer policy for the steering group, and methods groups provide advice and support to the Collaboration in the development of the methods of systematic reviews. Fields and networks identify health issues of importance to specific populations and facilitate reviews across the relevant review groups, so for instance the child health field [http://www.cochranechildhealth.ualberta.ca/](http://www.cochranechildhealth.ualberta.ca/) will identify health issues of importance to children and facilitate reviews across the relevant review groups, and similarly with public health and health promotion. One of these fields, health promotion and public health has spent the past 10 years facilitating reviews in this topic area, focusing on improving the understanding of what users are seeking from reviews, in terms of content, methods and topics. Over this time, the group, in consultation with international stakeholders and other review groups, has identified the need for a dedicated public health group to address the gap in upstream topics, currently not well covered. The process of doing this, and what needs to be taken into account in terms of participation from middle and low income countries, and user input to questions are well described on their website,
based at VicHealth in Melbourne http://ph.cochrane.org/en/index.html. The consumer network works to ensure that the perspective and needs of consumers are incorporated into Cochrane systematic reviews, and the ombudsmen and arbiters work to resolve differences. One consumer story illustrates the non-trivial role which users bring to the collaboration:

**User Involvement**

As a consumer suffering from asthma, Sylvia Beamon directed the Airways Group to the use of speleotherapy for asthma and other chronic obstructive airways diseases.

Speleotherapy, the use of subterranean microclimates in both natural caves and mines, has considerable widespread use in some Central and Eastern European countries where the treatment is fully accepted under their respective national health authorities, but is practically unheard of in the USA, and in the UK, where the review group is based.

The review group accepted the topic and Sylvia, an archaeologist with expertise in the study of underground space, also felt that she wanted to write the review. She joined up with two medical doctors and a physicist to do this. The review, ‘Speleotherapy for asthma’ is now available in The Cochrane Library.

What seems to have made collaboration work in the Cochrane Collaboration?

Firstly, there has from the start been a very clear aim in terms of making reliable information available worldwide, which people subscribed to and felt was valuable. It is not difficult for people from a range of backgrounds to see just why it matters for decisions in health care to be based on the best available evidence. ‘Buy in’ did not have to be a matter of a charismatic leader shouting ‘Follow me, chaps.’ The principles of the organisation are not just clearly stated, but also enacted and the first of the ten principles is Collaboration, by internally and externally fostering good communications,
open decision-making and teamwork. Other principles include building on the enthusiasm of individuals, and enabling wider participation.

Secondly, there are clear and explicit rules of engagement for collaboration such as the ways in which reviews are themselves conducted at idea (protocol) stage and subsequently including after publication. A handbook, available to all, makes the process and methods clear. Other important rules of engagement supporting the collaboration are rules about funding and conflicts of interest (Lenzer 2004).

Thirdly, there are mechanisms in place for disagreements to be brought out into the open, and resolved. No collaboration – and perhaps particularly no collaboration built around values and principles - is without issues which need skilled resolution. In relation to funding issues and conflicts of interest for instance, a funding arbiter was created to oversee management of difficult cases. Since 1999, Ombudsmen have been appointed to help resolve areas of conflict for which the usual processes have been insufficient. The role of the publication arbiters meanwhile have been set up to help people to reach a mutually acceptable agreement in areas of dispute between the editorial teams of Cochrane Review Groups and between review authors and their editorial team.

Other levers to a working collaboration have been recognising a range of contributions and allowing a variable threshold of collaboration - small or large; and the fact that people can collaborate on the basis of work they are already interested in. The reputation and standing of some of the key movers and shakers enabled infrastructure funding to be put in place (although the majority of the work of the collaboration continues to be voluntary). The public recognition worldwide of the worth of systematic reviews, and the willingness of the organization to learn, adapt and change while keeping its core principles has enabled the collaboration to continue.

One of the networking aspects which has made the collaboration work is the ready availability of information online, and more recently, tools for
collaborating online, which recognize the need to pay attention to the need for everyone to reduce their carbon footprint. The Cochrane Collaboration Web Team has assembled a guide to technologies related to distance communication with many of the services free and intended to eliminate some face-to-face meetings and the associated environmental impact. http://cochrane.org/resources/guide_to_online_collaboration.htm

The collaboration might be working, but what is it doing?

Some of the literature discussed above suggests that the nature of collaborations means that we may only be able to measure proxy outcomes (such as whether the building blocks are in place for good collaboration). But without some ‘hard’ evidence of both outputs and outcomes, it is difficult to know whether a collaboration can be effective.

The details of activity at the start of this section demonstrate the very substantial output of a collaboration which has only a small number of paid employees and which is hugely dependent on work from individuals who are frequently not co-located, but who collaborate across national boundaries, for each review.

As the section on consumer involvement illustrates, the lead reviewer can be a service user, but every review is encouraged to have participation from more than one country, advice from users, and to encourage questions from those who use and provide services. Cochrane reviews are used to underpin research-based guidance to doctors, nurses, physiotherapists and others worldwide. Since most of us would prefer to have our treatment based on evidence that it is more likely to do good than harm, lay summaries of findings are part of every review.

Recent developments suggest fruitful new collaborations and new directions. The Health Equity Field encourages authors of both Campbell (see below) and Cochrane reviews to include explicit descriptions of the effect of the
interventions not only on the whole population but to describe their effect upon disadvantaged people and/or their ability to reduce socio-economic inequalities in health and to promote their use to the wider community. Ultimately, this will help build the evidence base on such interventions and increase our capacity to act on the health gap between rich and poor.

More recently, in 2000, the Campbell Collaboration was established as a sibling group to the Cochrane Collaboration

http://www.campbellcollaboration.org/ to prepare and maintain systematic reviews of research on the effects of interventions in education, criminal justice, social policy and social care. The Campbell Collaboration is starting to build its reviews, and, according to the Crime and Justice group, http://www.campbellcollaboration.org/CCJG/index.asp welcomes the participation of researchers, practitioners, policy makers, teachers, students, media, and concerned citizens from anywhere in the world. The number of reviews is building, with 5 published reviews in education, 9 in the field of criminal justice and 16 in the area of social welfare. Those from the criminal justice group includes a review on disrupting street level drug markets (Mazerolle et al 2007), which also touches on collaborative partnerships in its conclusions that strategic crime-control partnerships with a range of third parties are more effective at disrupting drug problems than law enforcement-only approaches.

Successes and obstacles in relation to Cochrane and Campbell Collaborations

Setting up worldwide collaborations which are enduring, which involve working across languages and nations, and where the products of collaborative working will be scrutinized carefully is no mean feat. The successes in terms of output and influence of the Cochrane Collaboration have been substantial. A potential obstacle in terms of a wider spectrum of involvement in Cochrane has been the perception that only trials ‘count.’ This is not inevitably the case, and the proposed public health group makes this explicit. A further potential obstacle to success globally is the relatively small
number of studies included in reviews from middle and lower income countries, and the difficulties of transferring findings between contexts (Arai et al 2005). As Table 1 below demonstrates, attracting collaborators in lower income countries has been a difficulty, although one which is being energetically addressed by mechanisms which include bursaries, training events and fellowships, and in most review groups, an explicit statement in the review of the number of studies from low or middle income countries.

Table 1: Number of People Actively Involved in Cochrane Collaborative Review Groups

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Number of People</th>
<th>People in Low- and Middle-Income Countries</th>
</tr>
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<tr>
<td>2000</td>
<td>5,437</td>
<td>309</td>
</tr>
<tr>
<td>2002</td>
<td>7,728</td>
<td>553</td>
</tr>
<tr>
<td>2003</td>
<td>9,279</td>
<td>758</td>
</tr>
<tr>
<td>2004</td>
<td>11,517</td>
<td>1,078</td>
</tr>
</tbody>
</table>


Some of the drivers in the Cochrane field have been stronger than those in Campbell – there is a strong user demand in health and medicine, whereas in criminal justice, education and social welfare, the demand amongst practitioners is not so pronounced, and the demand among end point users of services even less so, though one can imagine the empowering possibility of a young person in the care system being able to use a Campbell review to support their need for an evidence based service, in much the same way as has happened with women giving birth and Cochrane reviews.
WHO Safe Communities

Like the Cochrane Collaboration, Safe Communities, co-ordinated from the WHO Safe Community Safety Promotion Collaborating Centre at the Karolinska Institute in Stockholm is included here because of its relatively long life as a collaboration; because it includes middle and low income countries as well as wealthier nations; because there are measures of success in terms of outcomes for users; and because the effectiveness of the collaborative interventions have been unusually robustly evaluated through a Cochrane review.

What is the safe communities collaboration?

- A Safe Community can be a municipality; a county; a city or a district of a city working with safety promotion, injury, violence, suicide and natural disaster prevention, covering all age groups, gender and areas.
- It is a part of an international network of accredited programmes co-ordinated by the WHO Collaborating Centre of Community Safety Prevention in Sweden and including a number of communities in Australia.

The Safe Communities concept was initiated at the First World Conference on Accident and Injury Prevention held in Stockholm, Sweden in September 1989, although its pre-history was work done in Sweden from the mid 1970s. Falköping, Sweden was one of the first communities to approach injury control in a comprehensive way for all ages, environments and situations. This was not accomplished by creating a new structure, but resulted from the collaborative efforts of existing organisations, associations, and welfare functions. In 1978, Falköping initiated its injury registration program, followed by an injury program in 1979. In three years, a 27% reduction in injuries was observed in the work, domestic and traffic areas (Schelp 1987). In 1991,
Falköping was designated a WHO Safe Community. The context in which Safe Communities has developed is a group of nations – the Nordic countries – which have unusually good outcomes for children in health and education, including a very low rate of injury mortality, a major cause of child death globally.

The manifesto for Safe Communities, developed at the 1989 conference, states that “All human beings have an equal right to health and safety.” This premise has led to community action around the world - actions leading to Safe Communities collaborations. Like Cochrane, there has been strong leadership from a central figure, Leif Svanstrom, and strong and consistent coordination from Moa Sundstrom. By June 1997, there were almost 100 designated members of safe communities networks worldwide, including China, Vietnam, Iran, Estonia and Bosnia, with a similar number preparing to become members. Twelve centres support the collaborating centre worldwide by providing advice and support, in countries including Bangladesh, Columbia and South Africa. The centre reminds colleagues in other nations developing safe communities programmes: ‘You are expert on your culture for developing Safe Communities in Your region.’ The principles of a safe community will change accordingly, from place to place.

The structure and ethos of this collaboration is around the development of local collaborations, and the collaborating centre makes clear that it is not essential for community safety to be the point of departure. Their view is that if a community is empowered to address one issue, it becomes possible to deal with other, and increasingly complex issues. A community that has established a context for building relationships, organising community intervention, and achieving results has taken the first steps to becoming a Safe Community. At a global level, (without minimizing the ways in which western countries may shift risks of, for instance, risky production to low income countries), the collaborating centre makes clear that safety promotion can be regarded as an important question of democracy and solidarity and a way to promote
peace and understanding, both inside countries and between countries and peoples. (Wellander et al 2004:40)

What seems to have made collaboration work in Safe Communities?

Firstly, there is a very clear aim to the collaborative work, which is the reduction of injury. Not only is a range of contributions recognized, but this range is core to the collaboration. While there is central co-ordination through the WHO collaborating centre, and the twelve supporting centres, the importance of collaborations at a local and national level has been identified as key to success. Designating a community as a member of the network does not necessarily mean that it is a safe community, but international recognition of aspirations in this area can be a powerful force in influencing local and national policy makers to pay attention to injury reduction and safety promotion. The collaborating centre identifies the following as key factors in implementing a successful Safe Community Injury Prevention Programme:

- Listen to the community - let them define what they believe are the most important problems
- Co-ordinate efforts at a regional level
- Raise public awareness to the importance of injury prevention
- Include injury prevention in national programmes
- Ensure that powerful interest groups support the community efforts
- Mobilise all members of a community creatively

The provision of a newsletter, sometimes weekly, over long periods of the collaboration, and one which has been made available in up to 22 languages in addition to English has given additional opportunities to recognize success at a local level.
There are **clear and explicit expectations of engagement** in that Communities in a Safe Community setting are expected to have:

- An infrastructure based on partnership and collaborations
- Governed by a cross-sectional group that is responsible for safety promotion in their community
- Long-term, sustainable programmes covering both genders and all ages, environments, and situations
- Programmes that target high-risk groups and environments and programmes that promote safety for vulnerable groups
- Programmes that document the frequency and causes of injuries
- Evaluation measures to assess their programs, processes and the effects of change
- Ongoing participation in national and international Safe Communities networks.

That collaboration that comes from harnessing existing enthusiasms and the chance to **collaborate on the basis of work they are already engaged in** is clear from the frank recognition by the collaborating centre that from their point of view, it is not essential that community safety be the point of departure. If a community is empowered to address one issue, it then becomes more possible to deal with other, and increasingly complex issues. The community that has established a context for building relationships, organising community intervention, and achieving results has taken the valuable first steps for becoming a Safe Community.

The **public recognition**, which has been identified as a potential lever in collaborative ventures has a very particular manifestation in Safe Communities. When a potential safe community applies for membership, which it does through explicitly describing activities relating to injury prevention, including the 6 indicators listed above under expectations of engagement, a 1-2 day site visit takes place. Designation requires signatures of a number of bodies – which might include a mayor, the head of a safety
network, and other interested parties – those the process itself draws in figures who have the potential to make the initiative ‘work’. Once designated, a WHO Safe Communities Flag may be flown (which in one community was flown at half mast pending progress on the issues they were promoting).

The collaboration might be working, but what is it doing?

As well as promoting safety at a local level, the collaborating centre provides training, education, publications and conferences.

Unusually, this work has been the focus of a Cochrane review, which concludes that evidence suggests the WHO Safe Communities model is effective in reducing injuries in whole populations (Spinks et al. 2005). While the authors found considerable methodological flaws in some of the designs of both included and excluded studies, and draw attention to the lack of ‘strong’ evaluations in lower income countries, their overall evaluation is promising.

In terms of practice development, they found some evidence that the Safe Communities model does reduce injuries in whole populations, and further implementation of these programmes is supported.

In terms of implications for research meanwhile, they found limitations to the evaluation methodology that qualifies the strength of the claims that can be made about the effectiveness of the Safe Communities model. They suggest that more WHO Safe Communities around the globe need to be well evaluated using methodologically strong evaluation techniques and the implementation processes employed need to be well documented. There is sufficient evidence of the effectiveness of the safe community model to warrant the establishment of an appropriately funded and conducted, global, multi-community trial.

While teaching material linked to the WHO Collaborating Centres website suggests that trials are not necessarily seen as an appropriate methodology
by those who have nursed this collaboration to its current state, it can be noted that the method best suited to establishing cause and effect relationships in terms of ‘what works’ has been positive about this enterprise. The review is in the process of being updated and new studies have been published which will be included in the update. At this stage, it is not known if the overall conclusions of the review will change, however the new studies will add to the available data.

**Successes and obstacles in relation to Safe Communities**

To engender and sustain a collaboration with a strong presence worldwide and with few dedicated resources, has been a formidable achievement. The formal recognition that lay people have a key part in collaborations of this type as key experts, rather than passive recipients of an intervention made it possible for action to be taken at a local level which might not otherwise have reached the desks of policy makers. The difficulties of evaluating complex interventions has already been rehearsed, and this is in area where, particularly in countries with poor data collection systems, it may be difficult to ascertain success or otherwise.

**DISCUSSION**

Given that the primary driver to collaboration appears to be in order to problem solve more effectively, there is a surprisingly scant literature on the effectiveness of collaboration in achieving the outcomes desired, the Cochrane review of Safe Communities described above (Spinks et al, 2005) being an admirable exception. Such has been the enthusiasm for collaborative enterprises, for ‘thinking outside the box’ and for breaking down boundaries that a cool appraisal of risks and governance issues has sometimes taken second place to rolling the sleeves up and getting on with collaborating.
What doesn’t work?

There are a number of barriers to our learning about what doesn’t work. We know that there are publication biases, with researchers more ready to submit articles with ‘positive’ results, and journals more ready to accept these for publication. In addition, there are strong disincentives to describing what goes wrong in a funded project. “Will I look incompetent?” “What will the funders think?” “I shouldn’t have allowed that to happen” (Bell and Newby, 1977; Bell and Roberts, 1984). Presentations at large conferences almost always have a positive spin, so that other practitioners, trying to replicate what sounded like a perfectly formed, simple and seamlessly implemented intervention, may become downhearted when life isn’t quite like that.

Much of the literature on collaboration is descriptive and theoretical (and no less useful for that) but to date, this has not enabled a real ‘bite’ to answers to ‘what works in collaboration’ and whether what works in making collaboration work also engenders the right results for end point users.

Factors identified in the management and the organizational literature, tend to be of a rather semaphore, headline, and alliterative nature, and avoid some of the critical issues around the nature of dissent, of gender roles in leadership and collaboration, and the costs of all re-organisations (including those which re-organise for greater collaboration). This literature also largely avoids some of the equity issues in globalization, which to some extent, are addressed in the two chosen case studies. How do we ensure in collaborations that there are learning opportunities for those of us who are relatively privileged from people who are marginalized, or poor and from low income areas or nations?

In conclusion, this report identifies the kinds of research methods we might use to assess the value of work on whether collaboration ‘works’, a number of factors associated with collaborations which appear to be successful, and
raises a range of unanswered questions. As one of the articles retrieved in the search described in Appendix I points out (Miller and Ahmad 2000.) collaborative practice, whilst meeting all the rational criteria for effective services, cannot succeed unless resource questions are thoroughly addressed.’ (Miller and Ahmad 2000: 35)

Perhaps one reason for the success of the two collaborations described above is the relative lack of resources to be shared, and the fact that collaboration was built on shared enthusiasms rather than managerial directive. To return to the beginning, we may travel faster when we travel alone, but we travel further with others.

**Key Lessons and Implications**

- Asking ‘what works in collaboration’ is not susceptible to the same kinds of answers as questions about what kind of widget works best in an engineering environment.

- Many collaborations are of short duration, and sound evaluations of what has worked at all, worked best, or done harm during the collaboration are few and far between.

- At least two things are being measured when we ask what works in collaboration – firstly, how well the collaboration itself has worked, and what has made it work (largely descriptions of process), and secondly, whether collaborative organisational forms produce better outcomes.

- Large and longstanding collaborations, such as the international ones described above, suggest that among the factors influencing success are:
  - A very clear aim, together with inspirational and energetic leadership
  - Building on the enthusiasms of others
o Clear rules of engagement in tasks, sound governance and assessment of risks, and a willingness to share risks and problems as well as any positive outcomes.

o Mechanisms in place to deal with disagreements

o Recognising a range of contributions, large and small

o Public recognition of worth

o Evaluations to assess effectiveness and cost effectiveness

- This is neither a complete nor a foolproof shopping list; inspirational leadership can be associated with disaster as well as success, for instance, and not every collaborative enterprise will seek, or even want, public recognition of worth. However, it seems likely that these features identified as being associated with the success of large scale ventures may also be relevant to smaller collaborations, as well as to those collaborations where smaller organisations may start to feel overwhelmed by the power and resources of larger organisations.

- It cannot be assumed that collaborations are inevitably the best organisational form for all kinds of activities – time for sound reflection, good evaluations, and a recognition of specialist as well as generic skills may be helpful in working out the opportunity costs of collaboration. Is more being gained than lost through collaborative time?

- What is certain is that a whole child, whole family, or whole community approach will continue to demand collaborations across boundaries. The best protection which children, families, and communities can have from failures in experimental new ways of organisation is for them to be seen as equal partners, for them to be able to question, and for practitioners, policy makers and researchers to maintain their specialist
skills while being open to developing the relationships which make things work.
REFERENCES


44. Select committee on Health, 2005, Evidence from Sir Iain Clarmers, PI 29, Minutes of Evidence which were ordered by the House of Commons to be printed 22 March 2005., London, Parliamentary Copyright. http://www.publications.parliament.uk/pa/cm200405/cmselect/cmhealth/42/4120701.htm


APPENDIX  PRELIMINARY POINTERS FOR A SEARCH STRATEGY ON COLLABORATION

This appendix, and the accompanying search and notes, were prepared by Dr Lisa Arai. A note on the search appears in the introduction and background section to this report.

Table 1: Electronic Databases – Details of search strategy (search terms, databases, results)

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<th>Limits</th>
<th>Results</th>
<th>Reduced/refined results</th>
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<td>'What works'</td>
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<td>Co-operati*</td>
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<td>Team*</td>
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<tr>
<td>Interaction</td>
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The potential search terms (not used in this exercise) might include

- Co-operati*
- Team*
- Interaction
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<th>Database</th>
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### Table 2: GOOGLE SCHOLAR search

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<th>Refined/reduced results</th>
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| GOOGLE SCHOLAR | 06/09/07   | Collaboration OR collaborating "What works"       | Language: English only  
Year: 2000-2007  
In title or anywhere in article.  
Business, Administration, Finance, and Economics  
Medicine, Pharmacology, and Veterinary Science  
Social Sciences, Arts, and Humanities only. | Collaboration OR collaborating "What works"=9,180 | GOOGLE SCHOLAR orders results in order of relevance, so the first 200 items were selected. Of these 35 are possibly relevant and details were imported into the REFMAN database. Bringing total number of items in the database to **403 items** |
Next steps: identifying key items

The 403 items in the REFMAN database were scanned to check that they met basic inclusion criteria. Details of (apparently) brief items, items focused on mathematical/computational aspects of collaboration and those not centrally concerned with collaboration (where the word may have just appeared in the title, or is not the main theme of the paper or report, for example) were left in the database, but were not used further.

Twenty one of the most relevant (based on a reading of title/abstract) items (i.e. those concerned centrally with issues around collaboration, especially where models/frameworks of collaboration are considered, and those items exploring impediments to successful collaboration and which discuss examples of effective collaboration) were then retrieved from the database.

The titles of these items are shown in Table 3 below. Fuller details of these papers/reports are then shown underneath the table, with abstracts provided and links to copies of items (an ATHENS password may be needed for access to some of the databases). Please note that these links may become out of date, in which case the titles may be used to search for the articles.
### Table 3: Key Items; titles only

<table>
<thead>
<tr>
<th>Title</th>
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<tr>
<td>1) Achieving results through workplace learning: Australian hospital makes the most of collaborative techniques</td>
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<td>2) From barriers to successful collaboration: Public schools and child welfare working together</td>
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<tr>
<td>3) Improving team decision-making performance with collaborative modelling</td>
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<td>4) Using collaborative modelling to mediate workplace conflicts</td>
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<td>5) Promoting collaboration in an international online learning community</td>
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<td>6) Dominant organizational logic as an impediment to collaboration</td>
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<td>7) The dynamic nature of innovation partnering: a longitudinal study of collaborative interorganizational relationships</td>
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<td>8) Collaboration and partnership: an effective response to complexity and fragmentation or solution built on sand?</td>
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<td>9) A leadership framework for cross-sector collaboration</td>
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<td>11) The kids are bickering and sniping: missteps in collaborative management</td>
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<td>12) Reflections on Interdisciplinary Collaboration in the New Millennium: Perspectives and Challenges</td>
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<tr>
<td>13) Leading edge: ‘Collaboration lite’ puts student achievement on a starvation diet</td>
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<td>14) Collaboration paradox: scientific productivity, the internet, and problems of research in developing areas</td>
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<td>15) Strategic alliances and models of collaboration</td>
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<td>20) Achieving coordination in collaborative problem-solving groups</td>
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1) Achieving results through workplace learning: Australian hospital makes the most of collaborative techniques. Document available at: [http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/0810170409.html](http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/0810170409.html) (HTML only)
a. Abstract: One of the most prominent figures in the organizational learning field, Peter Senge, has said that the need for understanding about how organizations learn and methods with which to accelerate learning is greater now than at any time previously. But for many, the gulf between polished rhetoric and practice is often daunting. What type of learning is likely to be most successful? What are the issues that emerge and the lessons that can be learned from others?

2) From barriers to successful collaboration: Public schools and child welfare working together. Document (abstract only) available at: http://portal.isiknowledge.com/portal.cgi?DestApp=WOS&DestParams=%3F%26CustomersID%3DResearchSoft%26CustomersIP%3D144.82.33.25%26 Func%3DLinks%26PointOfEntry%3DFullRecord%26PublisherID%3DResearchS oft%26ServiceName%3DTransferToWos%26ServiceUser%3DLinks%26UT%3D0 00180276800006&DestFail=http%3A%2F%2Fwww.isinet.com%2Fisi%2Fproduc ts%2Fsource%2Fservice.html&SrcApp=RefMan&SrcAuth=ResearchSoft& Func=Frame&Init=Yes&SID=U21L8c3gEBF7boCiKiG.

a. Abstract: Few mechanisms exist to support successful collaboration between public schools and child welfare agencies. One unfortunate consequence is that the children ostensibly being served by either system often end up receiving inadequate services from both systems. Focus groups were held with caseworkers, educators, and students to learn how the two systems can work more collaboratively. This article reports on the barriers and successful practices identified by the participants that affect the educational functioning of students living in foster care. The article concludes with the participants’ recommendations for practices and policies to improve collaborative efforts between the two systems.

a. Abstract: Purpose – This article aims to examine considerations and strategies for improving team performance in decision-making by teaching teams to use collaborative modelling based on team mental models.

Design/methodology/approach – The article describes the nature of shared mental models and collaborative modelling, the potential effects of collaborative modelling on team performance, and a perspective on communication imperatives that facilitate collaborative modelling. The article builds upon this information to suggest five imperatives for teams to help them develop collaborative modelling skills.

Findings – The article offers strategies in the form of five imperatives for teams to observe in order to build skills in collaborative modelling and improve team performance by improving team members’ ability to effect collaborative modelling to accomplish team tasks and goals.

Originality/value – Research over the years in mental modelling and communication has created a powerful argument that effective communication and shared mental models improves team performance. However there is little about application of this concept in the literature. The next step for researchers is to develop application models for collaborative modelling and test those models through empirical research. This paper offers an application model based on imperatives to be observed by decision-making teams in order to facilitate the creation of shared mental models of team tasks and processes.
4) Using collaborative modelling to mediate workplace conflicts. Document (abstract) available at:
http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldAbstractOnlyArticle/Articles/0300220503.html

a. Abstract: Investigates conflict in the workplace and states that mediation is beneficial to both employees and employers. Suggests that managers should cultivate team communication, and collaborative problem-solving skills in employees who serve on problem-solving teams. Summarizes that managers who serve as mediators can learn the root cause of conflicts in organizations, and aid employees to deal with the problems.

5) Promoting collaboration in an international online learning community. Document available at:
http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/0370350301.html

a. Abstract: This paper describes the background context of the International MSc in E-Learning Multimedia and Consultancy. The programme aims to develop the profile of “problem solver”/team co-ordinator at the interface of pedagogical, technological and organisational/cultural dimensions of development and these aims are reflected in the programme content. The origins of this development in a European Commission-funded project are outlined. An overview of the programme design is provided that emphasises peer and formative assessment practices and also of the pedagogical approach that aims to foster group collaboration in international teams. The features and benefits of the programme are described and supported by feedback and commentary from participating students. Finally some
reflections are offered on potential future developments and suggestions are made for further reading.


a. Abstract: Purpose – This paper aims to establish the role of dominant logics to assess the success potential of strategic alliances. Design/methodology/approach – An empirical validation of an approach based on the theory of conventions was carried out through an analysis of strategic alliances initiated by Apple involving the licensing of the Macintosh operating system. Findings – The analysis reveals the presence of modes of justification issuing from the world of inspiration, which seems to oppose the merchant and industrial worlds, which are most conducive to successful strategic alliances. Originality/value – The analysis of dominant logics within Apple Computer demonstrate that the inspirational logic is opposed to all forms of strategic alliances.


a. Abstract: This paper provides insights into the initiation and early development of collaborative interorganizational relationships (IORs) for innovation and new business creation.
Data were gathered from field observations of three ongoing collaborative IORs. A conceptual framework previously developed by Ring and Van de Ven served as a means of restructuring and analysing the data. The results reveal an emergent process that is dependent on the comparative achievements in negotiation, commitment, and execution. Three organizational practices were identified: volatile agreements, continuous re-evaluation and re-organization through real practice, and a process wherein “co-participants” were challenged to work on their relationships. The limited prospects of specifying agreements ex ante, combined with continuous variation in conditions, entail active management and continuous re-design of the relationship. This suggests that managers play the role of the architects of relational linkages.

8) Collaboration and partnership: an effective response to complexity and fragmentation or solution built on sand? Document (abstract) available at:
http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldAbstractOnlyArticle/Articles/0310200501.html

a. Abstract: Posits that collaboration in the UK is either recommended as good practice or enshrined within legislation as a necessity. Chronicles that there has been a sustained growth in the number of formal and informal collaborative relationships between state agencies and market, voluntary and community sectors, as well as within and between state agencies themselves. Uses illustrative case study materials drawn from the authors’ research and consultancy experiences, particularly in the areas of inner city community based mental health, urban regeneration, policing, and child
and adolescent mental health. Concludes that research has extensively been drawn on to illustrate the dilemmas that regularly arise when attempting to implement this policy objective.

9) **A leadership framework for cross-sector collaboration.** Document not available.
   
a. **Abstract:** This article presents an approach to collaborative leadership – the Leadership for the Common Good Framework. The framework includes the following elements: attention to the dynamics of a shared-power world; the design and use of forums, arenas, and courts, the main settings in which leaders and constituents foster policy change in a shared-power world; effective navigation of the policy change cycle; and the exercise of a range of leadership capabilities. The framework can provide useful guidance for public officials and managers who seek to meet complex social needs in an era of stringency in public service budgets and of skepticism about government’s problem-solving ability. Beyond that, however, more research is needed on how best to pursue leadership in shared-power, cross-sector settings.

10) **Learning from research perspectives in collaborative working.** Document (abstract only) available at: [http://www.emeraldinsight.com/Insight/viewContentItem.do?contentType=Article&contentId=883278](http://www.emeraldinsight.com/Insight/viewContentItem.do?contentTyp e=Article&contentId=883278)
   
a. **Abstract:** Offers an overall framework for understanding the complexities of collaborative working. After an analysis of the
forces against collaborating, a social constructionist perspective is taken. A model to connect and integrate individual and collective perspectives is then presented and examined.

11) The kids are bickering and sniping: missteps in collaborative management. Document (abstract only) available at:
http://www.emeraldinsight.com/Insight/viewContentItem.do?contentType=Article&contentId=883278

   a. Abstract: One of the methods used to develop “integrated management” is a collaborative management style by an organization leader. Known under a number of monikers including collaborative management, empowerment, and pushing decisions down, these attempts sometimes yield negative results emanating from a misunderstanding of what collaborative management means. The aim of this article is to present anecdotal evidence of missteps in collaborative management through the use of two mini-case studies of firms with which the author has consulted. One firm is a large public corporation and one is a small private firm, and the missteps are similar across the firms.


13) Leading edge: 'Collaboration lite' puts student achievement on a starvation diet. Document at:
http://www.nsdcd.org/library/publications/jsd/dufour244.cfm
14) Collaboration paradox: scientific productivity, the internet, and problems of research in developing areas:

a. We examine the ways in which the research process differs in developed and developing areas by focusing on two questions. First, is collaboration associated with productivity? Second, is access to the Internet (specifically use of email) associated with reduced problems of collaboration? Recent analyses by Lee & Bozeman (2005) and Walsh & Maloney (2003) suggest affirmative answers to these questions for US scientists. Based on a comparative analysis of scientists in Ghana, Kenya, and the State of Kerala in south-western India (N 918), we find that: (1) collaboration is not associated with any general increment in productivity; and (2) while access to email does attenuate research problems, such difficulties are structured more by national and regional context than by the collaborative process itself. The interpretation of these results suggests a paradox that raises issues for future studies: those conditions that unsettle the relationship between collaboration and productivity in developing areas may undermine the collaborative benefits of new information and communication technologies.


a. Abstract: Purpose – The purpose of this paper is to engage in a comprehensive review of the research on strategic alliances in the last decade. Design/methodology/approach – After presenting a typology of diverse alliance governance forms, reviews recent analyses of alliance formation, implementation
management, and performance outcomes of collaborative activities. Findings – Strategic alliances developed and propagated as formalized interorganizational relationships. These cooperative arrangements represent new organizational formation that seeks to achieve organizational objectives better through collaboration than through competition. Practical implications – The paper provides future research directions on partner selection, networks patterns and processes, understanding the integration in alliances through fusion, fission, and how to manage developmental dynamics. Originality/value – Concludes with some future directions for theory construction and empirical research.


a. Abstract: Partnership working has become a central feature of British social welfare policy since 1997. Although this development is applicable to all areas of public welfare, nowhere is it more evident than in the planning and provision of care that overlaps health and social services. The literature survey described in the present paper focused on research examining the impact of partnership working in these areas to assess the evidence concerning its effects and to investigate how partnership 'success' is conceptualised. The literature conceptualised the success of partnerships in two main ways: (1) process issues, such as how well the partners work together in addressing joint aims and the long-term sustainability of the
partnership; and (2) outcome issues, including changes in service delivery, and subsequent effects on the health or well-being of service users. The authors found that research into partnerships has centred heavily on process issues, while much less emphasis has been given to outcome success. If social welfare policy is to be more concerned with improving service delivery and user outcomes than with the internal mechanics of administrative structures and decision-making, this is a knowledge gap that urgently needs to be filled.

17) Making partnerships work: a practical guide for the public, private, voluntary and community sectors (Book). Details at:
http://www.jrf.org.uk/bookshop/details.asp?pubID=70
a. Abstract: ‘Partnership’ has become a buzzword of the 1990s. This study guides the reader through each stage of the partnership development process and highlights those factors that help or hinder successful management practice. Despite the diversity of partnerships studied, the researchers find a large degree of consensus on what constitutes a successful approach. Through practical advice and example, they illustrate how representatives of the public, private, voluntary and community sectors can work together most effectively to develop and maintain partnerships.

18) What is research collaboration? Document available at:
http://www.rvm.gatech.edu/bozeman/rp/read/41407.pdf
a. Abstract: Although there have been many previous studies of research collaboration, comparatively little attention has been
given to the concept of ‘collaboration’ or to the adequacy of attempting to measure it through co-authorship. In this paper, we distinguish between collaboration at different levels and show that inter-institutional and international collaboration need not necessarily involve inter-individual collaboration. We also show that co-authorship is no more than a partial indicator of collaboration. Lastly, we argue for a more symmetrical approach in comparing the costs of collaboration with the undoubted benefits when considering policies towards research collaboration.

19) Minimizing disincentives for collaborative research. Document (abstract only) available at:
http://portal.isiknowledge.com/portal.cgi?DestApp=WOS&DestParams=%3F%26CustomersID%3DResearchSoft%26CustomersIP%3D144.82.33.25%26Func%3DLinks%26PointOfEntry%3DFullRecord%26PublisherID%3DResearchSoft%26ServiceName%3DTransferToWos%26ServiceUser%3DLinks%26UT%3D00187582400005&DestFail=http%3A%2F%2Fwww.isinet.com%2Fisi%2Fproducts%2Fsource%2Fservice.html&SrcApp=RefMan&SrcAuth=ResearchSoft&Func=Frame&SID=U2I8c3gEBF7boCiKiG
a. While collaborative research partnerships offer a number of advantages, the disincentives to collaboration which are present in the academic environment can be daunting and can result in failure unless they are explicitly and proactively addressed. Based on successful models of collaboration and a review of the literature, four disincentives to collaboration - increased requirements for time and communication, lack of clarity regarding leadership, need to share resources and revenue, and the problem of partners who do not fulfil their
commitments are discussed and strategies to minimize these disincentives are presented.

20) Achieving coordination in collaborative problem-solving groups.

Document available at:
http://portal.isiknowledge.com/portal.cgi?DestApp=WOS&DestParams=%3F%26CustomersID%3DResearchSoft%26CustomersIP%3D144.82.33.25%26Func%3DLinks%26PointOfEntry%3DFullRecord%26PublisherID%3DResearchSoft%26ServiceName%3DTransferToWos%26ServiceUser%3D00089703800002&DestFail=http%3A%2F%2Fwww.isinet.com%2Fisi%2Fproducts%2Fesource%2Fservice.html&SrcApp=RefMan&SrcAuth=ResearchSoft&Func=Frame&Init=Yes&SID=Z22JfjkG1c2PKoDjG!

a. Abstract: In this article, interactive processes among group partners and the relationship of these processes to problem-solving outcomes are investigated in 2 contrasting groups. The case study groups were selected for robust differences in the quality of their written solutions to a problem and parallel differences in the quality of the group members’ interaction. In 1 group correct proposals were generated, confirmed, documented, and reflected upon. In the other, they were generated, rejected without rationale, and for the most part left undocumented. The analyses identified 3 major contrastive dimensions in group interaction—the mutuality of exchanges, the achievement of joint attentional engagement, and the alignment of group members’ goals for the problem solving process. A focus on group-level characteristics offers a distinctive strategy for examining small group learning and paves the way to understanding reasons for variability of outcomes in collaborative ventures. These dimensions may
usefully inform the design and assessment of collaborative learning environments.

21) **Working without boundaries: How collaboration aids innovation.**

Document available at:


a. **Abstract:** Purpose – Reviews the latest management developments across the globe and pinpoints practical implications from cutting-edge research and case studies. Design/methodology/approach – This briefing is prepared by an independent writer who adds their own impartial comments and places the articles in context. Findings – Within a business environment characterized by fierce competition and rapid change, the ability to innovate has become one of the most crucial attributes any organization can acquire. Those that possess the capacity are able to prosper and grow; those that do not must invariably face up to life among the also-rans. To the companies fortunate enough to include supremely talented individuals within the ranks, innovation is rarely much of a problem. A stroke of genius here or a flash of inspiration there helps keep these organizations at the cutting edge of their industry and leaves them envied and admired in almost equal measures. However, as everyone knows, all good things eventually come to an end. Key performers eventually either lose their Midas touch or leave the organization altogether. What happens then? In an ideal world, the creative mantle would pass to someone else, the process will continue unabated and everyone can live happily ever after. If only it were that easy. Practical implications – Provides strategic
insights and practical thinking that have influenced some of the world’s leading organizations. Originality/value – The briefing saves busy executives and researchers hours of reading time by selecting only the very best, most pertinent information and presenting it in a condensed and easy-to-digest format.