Chapter 5
Assets Based Interventions: Evaluating and Synthesizing Evidence of the Effectiveness of the Assets Based Approach to Health Promotion

Marcia Hills, Simon Carroll, and Sylvie Desjardins

Keywords Assets • Social capital • Evaluation • Evidence synthesis • Effectiveness framework

5.1 Introduction

As more and more evidence is collected that the determinants of population health (as opposed to "population illness") are related to a series of fundamental "assets" or "capacities" that individuals and communities have or don't have access to, it has become equally apparent that there are two basic research lacunae: the first is a lack of a positive or "salutogenic" approach to understanding patterns of health directly analogous to the traditional epidemiological approach to studying patterns of disease in populations; the second is the paucity of intervention research and evaluation on actions aimed at strengthening and supporting health assets as a way of producing healthy communities and individuals.

This chapter is focused mainly on the second lacuna, or gap. Just as there is a need to re-think traditional epidemiological assumptions in order to produce a new evidence base for which assets contribute to producing health rather than which deficits contribute to producing disease, there is a need to re-think traditional assumptions related to evaluating the effectiveness of health interventions aimed at strengthening health assets as opposed to eliminating or curing diseases. Working from a concrete example of a 4-year collaborative project in Canada aimed at developing a framework for evaluating the effectiveness of community interventions to promote health and build community capacity, we will introduce a series of profound methodological challenges that this type of evaluation research presents, along with a discussion of the attempt to use a "realist synthesis" approach to addressing these challenges.

M. Hills (✉)
School of Nursing, University of Victoria, Victoria, BC, Canada
e-mail: mhills@uvic.ca

A. Morgan et al. (eds.), *Health Assets in a Global Context: Theory, Methods, Action*,
DOI 10.1007/978-1-4419-5921-8_5,

This chapter is organized into four sections: an overview and critical assessment of the implications of the "assets based approach" in relation to the field of public health and health promotion; a discussion of specific issues related to the evaluation of assets based approaches; a discussion of specific issues that the assets approach raises in relation to synthesizing evidence for the effectiveness of health promotion interventions; finally, a discussion of some lessons from a concrete example of a 4-year collaborative project in Canada aimed at developing a framework for evaluating the effectiveness of community interventions to promote health and build community capacity.

5.2 The Assets Based Approach

The assets for health and development framework was initiated as part of the broader "investment for health" (IFH) approach as put forward by Ziglio et al. (2000). This approach is underpinned by two reciprocal research discoveries: (1) the greatest improvements in people's health have come mainly from social and economic progress, rather than from traditional bio-medicine or narrowly defined public health. (2) healthier populations are also more productive populations, in need of less support by the health care and welfare system (Blane et al. 1996). The IFH approach is based on the idea that investing in health assets will both improve health outcomes and advance social and economic progress. Health "assets" can be defined as any "collective resource that could be used to promote health and gain more control over the determinants of population health" (Ziglio et al. 2000). Assets can include such things as: supportive family and friendship networks; intergenerational solidarity; community cohesion; environmental resources for promoting "physical, mental and social health"; employment security and opportunities for voluntary service; affinity groups; religious toleration; lifelong learning; safe and pleasant housing; political democracy and participation opportunities; and, social justice and equity (Ziglio et al. 2000). The crucial conceptual distinction is between health promotion interventions that focus exclusively or primarily on health "needs" or "problems" and those that focus on assets. If the primary objective of the IFH approach is to strengthen health assets, then an intervention that failed to reduce health needs would not necessarily be thought of as ineffective. Ziglio et al. put forward a two-dimensional conceptual grid, where both asset maximization and need reduction are taken into account. It is possible to improve health assets without an immediate reduction in health needs; conversely, it is possible to reduce health needs while at the same time damaging health assets. Above all, the IFH approach is concerned with advancing sustainable and ethical health promotion strategies. Any investment for health must mobilize community resources in an equitable and participatory process that works with and strengthens, rather than bypassing and diminishing, existing community resources.

What will be called the "assets based" approach in this chapter is actually a specific, and perhaps more comprehensive, public health approach that reflects a variety of

disparate influences derived from a vaguely common concern. This common concern is not limited to internal self-reflections within the field of public health, but applies more broadly to social interventions in general. What has been seen as a generic concern is that the overwhelming focus of research on how and where to intervene in order to improve social and health outcomes is on the "problems" that individuals and communities have, rather than on what capacities, strengths and assets are available in these communities to tackle what are acknowledged by all to be significant obstacles to well being.

Perhaps the most persistent and consistent voice raising this concern has been John McKnight, who for over 30 years has been arguing that the exclusive focus on "needs", "deficits" and "problems" by researchers and "caring" professionals has often disabled and disempowered communities, replacing potential community driven solutions with an intensive "service environment", wherein helpful agencies and programs are funded in order to address community "needs". As Kretzmann and McKnight put it succinctly, in response to desperate situations:

> well-intended people are seeking solutions by taking one of two divergent paths. The first, which begins by focusing on a community's needs, deficiencies and problems, is still by far the most traveled, and commands the vast majority of our financial and human resources. By comparison with the second path, which insists on beginning with a clear commitment to discovering a community's capacities and assets, …the first and more traditional path is more like an eight-lane superhighway (1993; p. 1).

The reason to start with this quote is that it sets up nicely the generic issue or concern, which the "assets based approach" to public health has to tackle in relation to its own specific set of problems. Within the public health field, the "superhighway" has been what is fairly described as orthodox epidemiological research. This includes even the more innovative and sometimes radical "social epidemiology", with the latter focused on more complex "social pathologies" as opposed to the restrictive physiological and environmental foci of its more traditional parent discipline. In other words, most public health science, with some exceptions, is entirely focused on the pathological generation of disease, as opposed to looking at the positive mechanisms that generate health. Many, particularly in Europe, would call the latter emergent approach, the "*salutogenic perspective*" (Chap. 1). It should be noted of course, that this shift of perspective to a focus on health rather than disease, is also the foundational tenet of the health promotion movement.

As there are many other chapters in this book that outline the assets based approach in detail, the rest of this section will focus less on explicating the overall perspective and more on a series of conceptual and methodological difficulties that are posed by making this switch in perspective. The reason to do so is that, when considering the assets based approach in relation to the issues of evaluating and synthesizing evidence on intervention effectiveness, it is these conceptual and methodological problems that come to the forefront. This somewhat distinguishes our set of problems from the type of issues that confront a community organizer trying to implement an assets based mapping exercise like the ones advocated by Kretzmann and McKnight (1993). There are two reasons for this divergence in problems. First, the problem confronting the community organizer is often a directly political one of

convincing other members of the community and local authorities that an assets based approach is preferable to the normal, top-down, needs-based approach offered by existing services. We confront a different problem, in that what we face is an existing paradigm of research that is being challenged in terms of its appropriate scope, its relevance and its adequacy. Questions of "evaluation", "synthesis" and "evidence" are directly *scientific* questions that no doubt have profound political implications, but nevertheless require a rigorous confrontation with conceptual and methodological difficulties. Second, the assets based approach within public health acts at a much broader scale and scope and thus entails more complexity and more profound methodological problems than does the community assets mapping approach. As far as we are concerned, the type of "methods" developed by Kretzmann and McKnight (1993), while not perfect, are perfectly adequate to the task; what faces serious public health scientists in the task of shifting the public health research paradigm is a paucity of tools and methodologies rigorous enough to present a serious challenge to the reigning orthodoxy.

To begin, there is a very general problem that advocates of the assets based approach must confront. The fact is that the "normal" way of doing public health research is to do epidemiology. What this means is that, even when we are not doing research that would be termed "epidemiological", we are nevertheless held to the internal methodological standards of epidemiology as *the* public health *science*. While most researchers in the social sciences (with the possible exception of economics), as much as they may complain of "positivist orthodoxy", live in a world of quite extraordinary diversity in terms of philosophical approaches, methodologies and methods, public health sciences are dominated by a very well developed, coherent paradigm of research within epidemiology, which has its own internal rationale. Its focus on pathology is not exclusively due to a myopic obsession with needs, problems and deficits, but in fact has much more to do with core methodological issues than appears on the surface. Although "paradigm" is a badly misused term in much social science discussions, in this case, one can argue that its use is appropriate and relevant to the original sense given by Kuhn (1970). Arguably, one of the most challenging difficulties that a project of revolutionizing paradigms faces is that such revolutions are by definition not a "project"; rather, they tend to be "generational". First, it is only after an accumulation of anomalies confronts a discipline's ability to problem solve in the "normal" way that any serious consideration is given to radically different theoretical approaches. Second, the "alternative" has to gain some foothold in terms of credibility, and it has to be relatively coherent and consistent. Most crucially, it must offer clear methodological strategies and methods that can demonstrably produce findings that consistently "solve" existing anomalies (Kuhn 1970). As we will see in the rest of this chapter, we are only starting on the path to shifting perspectives within public health research.

Before moving directly to concrete problems in trying to evaluate assets based health interventions, there are several important conceptual and methodological issues to address concerning the overall assets approach. Let us start with the definition of health assets as offered by Morgan and Ziglio in Chap. 1: "as any factor (or resource), which enhances the ability of individuals, groups, communities,

populations, social systems and /or institutions to maintain and sustain health and well-being and to help to reduce health inequities."

We find this to be an admirable definition and one that will surely offer some guidance to the field as it tries to develop research strategies to support the overall model. However, one can immediately see that the definition has two striking characteristics: one, it is remarkably *diffuse*; another, it implies enormous *complexity*. To say that this approach to definition runs against the grain of orthodox epidemiology would be an understatement. For most epidemiologists, and in fact, most scientists dealing mainly with quantitative methods, the values of parsimony and simplicity are the guiding principles for defining terms. Why? Because, for the purposes of mathematical representation and then measurement, terms have to have clear, unambiguous definitions. This is true no matter what theory of measurement one uses or what type of measurement scale. Even for a simple nominal scale, we have to be able to clearly identify exclusive units of the scale. Yet, what is a health asset and what is not? Think about what "any factor (or resource)" could mean. Let us look at a few of the possible assets listed above: supportive family and friendship networks; intergenerational solidarity; community cohesion. While all these terms have meaning and certainly, on an intuitive level, have enormous relevance to community health, they are also terms that are notoriously difficult to measure appropriately. Of course, there are many attempts to develop proxy indicators for these sorts of concepts, but the history of these attempts serve more as a salutary warning about methodological sloppiness, than as progressive steps toward a tidy solution (McQueen and Noack 1998).

To provide a more concrete example of the types of conceptual and methodological issues being referred to here, we offer a brief discussion of one of the more thoroughly studied concepts relevant to the assets approach: social capital. Other public health and health promotion researchers have offered critical reviews of how the concept of "social capital" may or may not be helpful to the field (Edmondson 2003; Labonte 2004). These latter references are important, but in order to dig more deeply into issues directly related to measurement, assessment and evaluation, an interesting tangential perspective can be offered by considering a tough-minded economic critique of the concept (Durlauf and Fafchamps 2006). We do this not in order to produce any original analysis of the concept of social capital, nor *a fortiori*, to offer anything substantive to the economic literature on this subject; instead what we intend is to explicate some of the analogous issues that pertain to the assets approach in general that can be found by considering this critique of the social capital concept.

Durlauf and Fafchamps' main concern is in relation to producing "rigorous empirical research" on the concept of social capital. They do not dispute the intuitive and theoretical relevance of the concept, no matter that it is currently enmeshed in all sorts of vagueness and ambiguity. They focus their argument on whether current research methods and approaches to social capital are adequate to empirically demonstrate the relationship between social capital and beneficial economic outcomes. They pay attention to both global aggregate outcomes, such as improved economic growth and development, as well as distributional outcomes such as wealth and income inequality. While these economic outcomes are

not synonymous with public health outcomes, they are directly analogous: public health wants to see a relationship between health assets and improved overall health outcomes, as well as the relationship between health assets and more just or "equitable" distributions of health.

The basic premise of Durlauf and Fafchamps' paper is that, while social capital is a potentially powerful concept, and has some successful empirical applications, the vast majority of uses of the concept lack rigor and precision, employ circular reasoning, or make unwarranted assumptions in order to get off the ground. We will consider only two of their many trenchant criticisms, both chosen for their obvious relevance to concerns within public health and health promotion. First, we consider the problem of "non-triviality". That is, we need to be sure that our definitions of terms are not trivial, meaning, in this context, that they do not presuppose beneficial effects. Here is how Durlauf and Fafchamps put it:

> "The study of social capital is that of network-based processes that generate beneficial outcomes through norms and trust…By this definition social capital is always desirable since its presence is equated with beneficial consequences. This formulation is quite unsatisfactory from the perspective of policy evaluation (e.g., Durlauf 1999, 2002), if one denies the appellation of social capital to contexts where strong social ties lead to immoral or unproductive behaviors, there is nothing nontrivial to say in terms of policy."

As one can immediately discern, some of the same problems plague the health assets approach. Take for example, the use of "community cohesion" as a health asset. It is assumed in the definition that community cohesion (however it is measured) is *ipso facto* a beneficial "enhancer" for individuals, communities, groups, even whole societies to "maintain and sustain health and well being and to help reduce health inequities". However, if, by definition, it is not possible to have "community cohesion" affect the desired outcomes negatively, then what is the point of empirical investigation, never mind policy action? In fact, as Labonte points out, there is good reason to believe that "community cohesion" can have negative social exclusionary effects, and thus undermine at least the equity outcome named above (2004). A related issue when it comes to empirical work on aggregating and synthesizing data, is that such triviality in definition can actually lead to dangerous fallacies of composition. For example, if one wants to measure the effect of community cohesion on health outcomes, simply aggregating individual level data on health outcomes may ignore the distributional effect of some groups receiving large health benefits from community cohesion, while other more excluded groups are negatively affected. Thus, the aggregate data shows a positive effect on health of the population, yet some groups are actually suffering negative effects from community cohesion. Potvin et al. (2007), have been at the forefront of demonstrating this equity problem for public health, but this has been demonstrated formally elsewhere on a much more general level in terms of classical welfare outcomes (Durlauf and Fafchamps 2006).

The second problem with the concept of social capital, and by analogy with many proposed factors or resources that may act as health assets, is also tied to the problem of equity, and relates to the essentially *relational* aspect of these types of concepts. As Durlauf and Fafchamps point out, often some groups or individuals use social capital to get ahead of others groups and individuals in a competitive

environment. While there is nothing to rule out universally beneficial outcomes from increases in social capital, to rule out potential conflicts between group and individual interest would be naïve. For these authors, the important point is to avoid importing unexamined conceptual assumptions into the methodology and measurement of social capital; however, their overall message applies equally to many related or analogous social science concepts and their place in building a body of empirical evidence. Needless to say, if the basic data collection is conceptually flawed, any attempt to synthesize results will be equally flawed, if not compounded by the false assumption that heterogeneity of results can be accounted for through statistical fixes, or other analytical approaches.

Finally, we can look to another source to emphasize the problem with the *relational* aspect of these types of social science concepts. Although increasingly referenced as an important theorist to consider for health promotion and public health theory, Pierre Bourdieu has been, with some exceptions, ignored when it comes to considerations of the concept of social capital. While Bourdieu certainly was not amongst the main protagonists in the Anglo-American literature on the social capital concept, and the roots of the concept are far removed from Bourdieu's specific set of theoretical concerns, his own conceptualization of the use of different forms of "capital" in structuring social hierarchies is highly relevant to the questions we have been outlining above. First, Bourdieu is quite clear that most of the forms of collective "capital" that we utilize to further our well-being are predicated on modes of *social distinction* (Bourdieu 1986). What this means is that the effectivity of certain forms of social capital derive their power by maintaining distinctions and conserving their value through scarcity of supply. Elite social networks and clubs are excellent examples of this process. These forms of social capital may demonstrably enhance the well being of their members and their offspring; however, a potential solution is not an additive one of simply increasing access for more people to these groups. This is because part (if not all) of their value is maintained *because* of their relational exclusivity, not due to any substantial identifiable and independent essential properties. In other words, the effectiveness or convertibility of these forms of social capital relies precisely on the fact that the symbolic power they exercise is based on the relational exclusivity of their memberships. While networks work differently in terms of maintaining boundaries, similar relational attributes apply. Being a central node in a social network loses its relative power in direct proportion to the level of equality in terms of density of ties between different nodes. The benefits of being a central node are partly determined by the fact that this level of connection is relatively rare. If everyone has the same level of connections, then the symbolic power of distinction is lost. This does not imply that access to social capital is devoid of positive non-relational benefits; what it does imply, is that in considering social capital and by analogy, health assets, we should not ignore this crucial conceptual advance made by Bourdieu.

What these conceptual problems in relation to equity reinforce is that we need to be very careful about our methodological strategies for empirical investigation in the area of health assets. There are two main lessons to keep in mind from our brief survey above. First, the candidate "health assets" that are routinely listed as the key

factors or resources, have to be very carefully defined. Furthermore, their operationalization as variables and indicators needs to be built upon more careful ethnographic and observational research. It is not good enough to follow the conventional epistemology of psychometric validation. The theory of representation should be based on inherent validity derived from consideration of real world structural characteristics of the phenomena in question. In other words, measures, if they are possible at all, should take into account the complexity of the underlying concept, but should nevertheless aim at clarity over vagueness.

The second key lesson is that, whether "health assets" can be considered beneficial cannot be decided by a matter of definition, but must be understood in relation to the specific contexts within which such potential assets operate. This approach allows us to avoid the problem of triviality by understanding that the beneficial effect of different social factors or resources is a complex, non-reductive function of how they *interact* with other contextual factors. As we will see, for these reasons, a critical realist approach is helpful in untangling some of these more complex methodological problems.

5.3 Implications for Evaluation

The limited evidence of the effectiveness of health promotion initiatives is due, at least in part, to the inherent difficulties in evaluating assets based health promotion community interventions. As discussed in Chap. 1, historically public health and health promotion initiatives have tended to focus evaluations on a deficit perspective. "That is there is a tendency to focus on identifying problems and needs of populations that require professional resources and high levels of dependence on hospitals and welfare services" (Ziglio et al. 2000; Morgan and Ziglio 2006).

What is required is a total re-thinking and re-conceptualizing of evaluation that is appropriate for assets based health promotion initiatives. First, we need to emphasize an integrated approach to process and outcome evaluation, formative and summative approaches. Even in evaluations that are primarily focused on outcomes, issues of implementation context and complexity have to be considered. Second, these initiatives/interventions by their very nature, demand that empowering and participatory approaches to evaluation be used. Most orthodox approaches to evaluation are antithetical to the essence of assets based health promotion.

One of the most disappointing aspects of reviewing literature on evaluations of capacity building activities and health outcomes is the dichotomy between the type of evaluation approach that is seen as necessary for supporting effectiveness assessment and the type that is seen as more helpful for "formative" or "process" issues. In order to bring an evaluation focus to how enhancing health assets can lead to better outcomes, we need to move beyond this dichotomy. As was explained in the first section of this chapter, the type of phenomena represented by the factors and resources conceptualized as "health assets", is inherently complex and contextually determined. A phenomenon like "inter-generational solidarity" is not like a drug

and does not act as a typical dose-response causal mechanism. Like many other potential health assets, inter-generational solidarity is multiply determined, tends to have causal effect in tandem with other interacting factors, and will in any case tend to have a non-linear relationship with positive effects on health, particularly through emergent, transitional thresholds. In order to capture these complex phenomenon and their causal effects on outcomes of interest, there needs to be an approach that integrates both data collection tools and analytical strategies to consider how particular health assets are internally structured, externally related to a set of interacting contextual factors and, finally, causally connected to positive health outcomes. In order to do this successfully, issues of process and implementation are not merely supportive after-thoughts for reviewers, or relegated to the periphery of reflective practice, but are *integrally* and *internally* related to the conceptualization of the evaluation of the "effectiveness" of health assets. For these reasons, there are three crucial advances necessary for the field: more subtle measurement approaches that capture the internal complexity of health assets; more attention to the socio-ecological contexts within which health assets operate; and, more innovative analytical strategies to match the complexity of the phenomena involved in assets based interventions.

Another important aspect that needs to be re-thought is the relationship between orthodox, non-participatory approaches to evaluation and the attempt to establish an assets-based approach. Orthodox evaluation because of its value and philosophical base, purposely does not allow practitioners that are engaged in implementing programs to conduct the evaluations because of the belief that these practitioners can only provide subjective evidence and that the results are not credible and are biased. It is time to question these assumptions if we are to begin to collect data that is relevant to assets based health promotion programs.

In orthodox evaluation an external evaluator is typically hired as a consultant to evaluate the community program. In essence, this evaluator collects data about the program, analyzes and interprets the findings and delivers a report with recommendations. This orthodox approach to the evaluation process, alienates those who care most directly about the program; it provides little or no opportunity to reflect, examine or learn from the data; it neglects opportunities for practitioners to develop data analysis capacity; and, it produces anxiety and cynicism about evaluation. As Reason describes,

> "Orthodox evaluation methods, as part of their rationale, exclude participants from all the thinking and decision-making that generates designs, manages and draws conclusions from the evaluation. Such exclusions treat the participants as less than self determining persons, alienates them from the inquiry process and from the knowledge that is its outcome, and thus invalidates any claim the methods have to a science of persons" (Reason 1988).

We need to challenge the assumptions that underlie orthodox evaluation by asking: What is the relationship between the evaluator and those delivering the program? What should be accepted as evidence upon which to base practice? What information do we need to explain program success and failure? For example, knowing the number of participants who attended a program can tell you about "reach", perhaps, but what does it tell you about what was learned or about what was changed? What

caused the change? In our opinion, evaluators are not asking the appropriate questions that will help them explain causal relationships that lead to outcomes. For example, most practitioners who implement assets-based health promotion programs would agree that meaningful participation is critical to the success of these programs. However, there are very few examples, if any, of program evaluations that assess the impact of "meaningful participation" on program outcomes.

Perhaps, if we could begin to think about evaluation as "reflective practice" rather than program evaluation, we could begin to explicate the complexities that are inherent in these programs. After all, it is people that implement programs and the processes that they use directly impact the outcomes of that program. So, what actually makes one assets-based health promotion initiative work and another not?

It is beyond the scope of this chapter to describe alternative approaches to evaluation that are more consistent with the philosophy of health promotion, but many scholars are struggling with these issues and there is a recent emergence of several diverse approaches that provide some hope for future. (Hills and Mullett 2000; Minkler and Wallerstein 2003; PAHO 2004). The key point is that it makes little sense to utilize an evaluation approach that undermines the very strengths and capacities that it aims to evaluate. If we are trying to assess whether various health assets are being enhanced and what their relationship is to improved health outcomes, the real threat to validity is caused by a cynicism that negatively affects the assets we are trying to explore, generated by the lack of participation in the evaluation process we too often see in orthodox approaches.

Although there has been some move over the past few years to focus more on evaluating the impact of health interventions on positive assets and capacities in communities, most evaluation is still focused mainly on deficits and needs and how these are being addressed. Furthermore, there is a tendency to lump all focus on "capacities" into the category of "process" evaluation, which is dichotomously divided from "outcome" evaluation. This prejudice leaves communities in an awkward place because, in terms of reflective practice, process evaluation is seen as very important, yet, in terms of accountability to funding bodies, outcome evaluation is seen as paramount. The assets-based model opens a new opportunity to have an integrated evaluation approach that overcomes the old dichotomies between process and outcome evaluation, and between so-called "formative" and "summative" approaches. We need to start understanding improvements in specific health assets *as* intermediate outcomes in a linked chain of progress towards improving overall health and social outcomes.

It is crucial that we not underestimate the importance of letting a participatory approach to evaluation drive this new emphasis on assets. Communities, where all interventions eventually must have an effect, are naturally disposed to a focus on assets and strengths, as this perspective is also internally related to issues of empowerment and sustainability. Building on inherent capacities, even in the most vulnerable populations, is a way of ensuring both that communities can take prideful ownership of intervention processes, and that any gains made can be sustained.

Finally, it is equally important that a new and focused rigor is brought to bear on evaluation concepts and measuring tools that need to be developed to support the asset model. There is still too little work on well-designed indicators that can be integrated

into evaluation strategies to assess the impact on health assets of health promotion and other public health interventions. We know that the importance of "context" in evaluating health assets is undeniable; yet, we have very little in the way of rigorous, consistent evaluation protocols and tools to collect evidence on contextual factors. These are areas that cannot be ignored if we are to deal with the intrinsic complexity of assets-based interventions and thus the complexity of their evaluation.

5.4 Implications for Evidence Synthesis

If there are major changes that are necessary in how we approach evaluation in order to be congruent with an assets-based approach to public health, this is equally, if not more true, in relation to the question of how to synthesize evidence from evaluation data to assess the effectiveness of assets-based interventions in general. In this section, we first try to distinguish between the concepts of "evaluation" and "effectiveness". We then move to consider the "realist" critique of existing synthesis approaches, and finally explicate the realist alternative.

5.4.1 Evaluation vs. Effectiveness[1]

"Evaluation" refers to a generic type of research, where a particular intervention or activity is examined to assess its "success" (or lack thereof) through the analysis of the processes and outcomes of that set of activities. Evaluations may provide information for a variety of uses, including: feedback to participants in the activities or projects; dissemination purposes; theory-building exercises; and, accounting for the benefit or worth of the activities in question in terms of effectiveness, efficiency, and equity etc. "Effectiveness", as implied above, is a much more specific concept. The goal of effectiveness research is to assess whether a specific *type* of activity (such as "community interventions") has the desired "effect" in relation to a specified objective or set of objectives (e.g. increased knowledge, awareness and improved health practices) (Tones and Tilford 1994). As mentioned earlier, evaluation is a broader research activity that has been an integral part of public health and health promotion since its beginnings; demonstrating effectiveness, on the other hand, is a more recent and much more demanding undertaking.

Evaluations are often concerned with *individual* interventions and their outcomes; effectiveness is concerned with the relationship between a *type* of intervention and outcomes that are observable across interventions. In other words, to

[1]It should be noted by way of caveat that often people understand the term evaluation to apply to the concept of effectiveness more generically. However, due to two developments in the literature, we want to emphasize this contrast: first, because of the rise of the systematic review, 'evidence review' or 'synthesis' are used more often in relation to questions of effectiveness; second, the types of methodological problems that arise in doing evidence syntheses are *sui generis* and need to be distinguished from the methodological debates within evaluation as a separate topic.

assess effectiveness, the researcher has to look *across* evaluations of a specific type of intervention in order to show that it works more generally. For example, it is possible to evaluate a specific community intervention in order to demonstrate that it achieved its goals in a particular setting; however, to show the effectiveness of community interventions, it is necessary to collect evaluation data from across many interventions in order to "test" the type of intervention as a generically successful or beneficial approach.

Although there are some superficial similarities in the methodological debates within the evaluation literature and the effectiveness literature, the latter's inherent demand for *comparability* means that the issues are different and are derived from a different historical and logical context. The effectiveness research debate centers around the increasingly urgent quest for evidence-based policy making (Pawson 2002a). Here the question is not so much about how to do evaluations (although it has large implications for the latter), but about how to do *systematic analyses* of previously collected evidence. As Pawson puts it concisely: "By building a systematic evidence base that captures the ebb and flow of program ideas we might be able to adjudicate between contending policy claims and so capture a progressive understanding of what works" (Pawson 2002a). In order to inform policy on the basis of evidence, some form of review of reviews is necessary or policy-makers are caught in a cycle of forever catching up with mountains of emergent evaluation data that never seems to offer direct guidance. Pawson (2002a) has argued that this is the crucial point that sometimes gets missed: "The case for using systematic review in policy research rests on a stunningly obvious point about the timing of research vis-à-vis policy: in order to inform policy, the research must come before the policy" (p. 158). For these reasons, we refer to this problem as one of "evidence synthesis".

Of course, depending on the approach taken to systematic review, what should count as adequate evaluation data (from the perspective of the effectiveness reviewer) looks very different, and this is where the two concepts converge. Evaluation approaches have traditionally been divided into two opposing views, either labeled "quantitative vs. qualitative" or "positivist vs. interpretive". There are many different and more specific categorizations of evaluation approaches; nevertheless, the more simple dichotomies referred to above are adequate to give a sense of what has been at the core of the debate. The two main streams of evaluation still fit under the broad categories of positivist and interpretive (Guba and Lincoln 1989), which equate roughly with the meta-analytical and narrative manners of conducting systematic reviews. There are two more recent approaches that are distinctive: the participatory evaluation approach; and, the realist evaluation approach, the one we propose to utilize here.

The participatory approach argues that both the positivist and the interpretive approaches are wedded to a notion that there is an "evaluation expert" that has special access to a form of knowledge that is superior to that of the people involved in the work of the initiatives being evaluated. The participatory approach recognizes the value of different types of knowledge and sees evaluation as a collaborative process of reflection-in-action, where researchers and participants work together to develop and implement evaluations (Hills and Mullett 2000; Minkler and Wallerstein 2003).

The realist approach argues, similarly, that the positivist and interpretive approaches are inadequate, yet for different reasons. The realists are inclined to agree with much of the interpretive critique of positivism, but are reticent about accepting the conclusion that evaluation can only be about "inter-subjective meaning". Realists are concerned to defend a position that can maintain "objective" standards of evaluation in so far as the reference of evaluative work is to *what is actually happening in the world*, as opposed to restricting themselves to what is *perceived to be happening* by particular groups of people. In other words, realists want to retain a distinction between what people think is going on and what is actually going on. So let us see how they criticize the positivist and interpretive views.

5.4.2 The Realist Critique of Meta-Analytical Systematic Reviews

Researchers tasked with performing a systematic review must rely on the type of evidence collated from the mass of evaluation data compiled by evaluation research. The dominant "meta-analytical" tradition of systematic review (in fact, often the definition of systematic review is conflated with meta-analysis) relies on evaluation data that has standardized, quantifiable outcomes. This approach considers the intervention itself a "black box", wherein what may or may not go on is of little methodological concern. The main issue is to abstract from each intervention outcomes data in terms of measures of impact (net effect) that is comparable across interventions, so that standard statistical methods can be applied in calculating the "typical" impact (mean effect). The level of analysis is usually aimed at assessing the effectiveness of "programmes" and their "sub-types" or methods of delivery. The implication for evaluation is that "good" evaluations are those that provide standardized outcomes measures (whether these are appropriate or not is left unexamined) (Pawson 2002a).

The meta-analytical approach suffers from some serious drawbacks. First, it reduces many different interventions to programme sub-categories that may or may not be comparable in terms of their basic theoretical perspective or their practical implementation. Often these categories simply lump together initiatives arbitrarily on the basis of professional specializations and bureaucratic distinctions. The point here is that meta-analyses do not investigate this issue systematically[2] and so cannot be sure that the categories they use compare like with like, a foundational requirement of any causal assertions.[3] Second, in terms of outcomes, meta-analysis often encourages the worst cases of what Alfred North Whitehead called the "*fallacy of misplaced*

[2]This is not the same as statistical measures of "heterogeneity" of data which tend to avoid the conceptual problem of identity and theoretical homology.

[3]Formally, if we cannot be sure that category X represents the class $x^1 \ldots .x^n$, where all x's are equal, then X cannot be a putative cause of anything.

concreteness" (Whitehead 1997/1925). This is where abstractions, which may or may not have been useful and helpful in one context become employed in a second context as if they are fully concrete entities existing with a life of their own. Thus, the results from using measurement scales constructed for the purpose of identifying changes according to a particular psychological theory, become recruited and aggregated with other measures of psychological change as part of some more generic category of psychological change, which is then aggregated with other measures of even more general behavioral change as part of some "meta"-category of positive change, to arrive at what Pawson (2002a) calls "*means of means of means!*".

The desperate push to do respectable statistical analysis ends up with ghostly abstractions transubstantiating into flesh and blood measures of real performance. We are left with a "spurious precision" constructed through a rhetorically powerful masquerade of numbers (Pawson 2002a). Finally, and perhaps most glaringly from the perspective of its critics, meta-analysis squeezes out, if not eliminates, the context within which initiatives take place. This would not be such a serious concern if it was true that the context were not relevant to the outcomes; yet, it is a commonplace observation (in the very best sense of the term) that the success of many community initiatives depends on much more than simply the programme involved. Who is involved, how and in what circumstances are crucial factors in the success of any initiative (Labonte 1996; Pawson 2002a; Vingilis and Pederson 2002). The black-boxing of context in this case can lead to: Type I Error, where significant variations in outcomes are attributed to programme differences, when in fact they are due to confounding factors in the contexts of the interventions; Type II Error, where variations in outcomes are not significant enough to be attributed to programme differences, when in fact more significant differences would have been found if the confounding factors had been taken into account; and, Type III Error, where negative outcomes are attributed to programme failures when in fact they are due to poor intervention implementation. Much criticism has been leveled at meta-analysis for its cavalier attitude to these issues.

5.4.3 The Realist Critique of Narrative Systematic Reviews

The "narrative review"[4] approach to systematic review requires quite the opposite type of evaluation data. One could almost say that this approach starts with the maxim: "the more detail the better". In general, this approach to systematic review

[4]Pawson's term is, as admitted by the author, an umbrella concept that tries to capture a variety of approaches that meet up with similar methodological problems. "Meta-analysis" and "narrative review" are therefore not symmetrical terms; the former is a fully developed and standardized methodological approach, whereas the latter is simply a useful label for an array of differing and even mutually incompatible approaches. Furthermore, there have been recent advances in the narrative review approach that address some of Pawson's critique, particularly work by Jennie Popay and colleagues.

has developed in a number of directions, all of which are sensitive to the glaring inadequacies of the "meta-analytic" approach. These strands of research, often inspired by the interpretive paradigm of social scientific inquiry, attempt to pay much more attention to the process of interventions, detailing the key or significant aspects of each example in the hope that an accumulation of such data can be abstracted from to provide lessons about a program's effectiveness.

Narrative review can be characterized as a reaction to the fact that the technique of meta-analysis ignores, or at least does not take account of, much of what is available in the evaluation literature, never mind what could be made available. Its critique ranges from the gentle admonishment of meta-analysis's more arrogant extremes to a radical questioning of the entire program of meta-analysis. On the "gentler" end of the spectrum, critics suggest a more balanced approach to including data in systematic reviews to allow more detail of a qualitative nature (Dixon-Woods and Fitzpatrick 2001). At the "radical" end, there is a constructivist critique that tends to deny any sort of objective comparability at all (Dahler-Larson 2001; Guba and Lincoln 1989).

The first criticism of the narrative review approach is from the orthodox meta-analytical stance. Here it is argued that the narrative review approach is inadequate to the task of detecting small intervention effects, thereby leading to Type II error (false negative result), because of the heterogeneity of interventions, outcomes and contexts (Petticrew 2003).[5]

Whatever the merits of this particular criticism, a more fundamental one is that developed by Pawson (2002b), who argues that narrative review fails every time it attempts to move from in depth analyses of individual studies to a level of abstraction that is logically consistent and comparable *across* different studies. This is inadequate precisely because it merely churns qualitative data into countable indicators, without addressing the basic criticism of this procedure that underlies the original rejection of positivism. What is missing is a rigorous philosophical basis for an alternative approach. While the realist approach may suffer from equal difficulties in terms of concrete alternative empirical tools and methodological frameworks, as we will see, what it does have is a fully consistent philosophical alternative to the positivism inherent in orthodox meta-analytic approaches.

5.4.4 The Realist Synthesis Approach

Limitations to current approaches demonstrate the need to develop a new framework. Pawson's realist synthesis approach provides a foundation for such a framework (2002a, b). Pawson (2002a) argues that exposing exemplary cases has less to

[5]This is a somewhat ironic criticism, as the main thrust of the author's argument is that, meta-analysis tends towards a "stainless steel" law of review, where: "the more rigorous the review, the less evidence there will be to suggest that the intervention is effective" (Petticrew 2003: pp. 757–758).

do with reviewing evidence and more to do with testing submerged theories. Adopting a realist synthesis method enables the synthesis of evidence from different initiatives and programs and has the capability to link processes to outcomes by formulizing the interaction between a program's mechanisms, contexts, and structures (Pawson 2002b).

Pawson (2002b) argues that it is not the "programs" themselves that are generating change; it is the resources or reasons they offer to subjects. In order to successfully orchestrate evidence based practice, the emphasis on causality must be aimed at the basic processes of any initiative. These basic processes can then be broken down and analyzed and viewed as specific mechanisms. Determining whether the same mechanism yields similar results in diverse settings can draw meaningful comparisons; and both negative and positive results are equally important to consider (Pawson 2002b). This approach also points out that though some kind of systematic review is necessary to inform policy-makers, the timing of such a review is often not synchronized. To be successful at informing policy, it is crucial that research comes before the policy (Pawson 2002a).

Systematic reviewers, when dealing with a combination of mechanisms, need to sort through contexts that lead to successful outcomes from contexts that result in failure (Pawson 2002b). Contextual information can be taken into account as part of the underlying mechanisms, allowing comparisons across contexts. In the end, the systematic review should rest on "families of mechanisms", not on "families of programs" (Pawson 2002b).

The realist synthesis model offers great opportunity for growth in knowledge translation practice as it enables the synthesis of evidence across different programs and initiatives and provides a detailed formulation of the interaction between mechanisms, contexts, and structures of community programs in a dynamic model, linking processes to outcomes.

We now move to a concrete example of a research project that utilized a realist synthesis approach to guide the development of a framework for assessing the effectiveness of community interventions. As we will see, the much of the substantial elements of this project were concerned with community capacities and process that act as factors or resources that are health assets.

5.5 An Example: The Effectiveness of Community Interventions Project

In Canada, the Public Health Agency of Canada (PHAC) and Health Canada (HC) fund health promotion community initiatives that aim to promote health and enhance community capacity. These programs are based on a population health approach, and generally, they attempt to use an assets-based approach to bring about change. That is, they focus on the communities' resources and capacities to improve health. The project described in this chapter evolved from a need to

gain a better understanding of the success of different community intervention approaches as well as their relevance in modifying different outcomes that lead to improved health. The basic driving force behind what has been called "effectiveness research" is the need for funding authorities, both public and private, to *account* for the utility of investments in specific forms of work and sets of activities. There is a continuing pressure on these funding authorities to ensure that the funds they expend are spent in the right areas and in the right ways. In other words, there is some return on their investment. In this context, in 2003, a 3-year collaborative initiative between the Canadian Consortium for Health Promotion Research and the PHAC was initiated entitled the "Effectiveness of Community Interventions Project" (ECIP).

This project focused on the development of a framework for assessing the effectiveness of community interventions to promote health. In particular, it concentrated on how to assess the evidence of the effectiveness of federally funded community intervention approaches that target three specific outcomes (increased awareness, knowledge and improved health practices). The project involved three main activities: A literature review on the effectiveness of different community intervention approaches that address awareness, knowledge and improved health practices; the design of a framework/tool for assessing the effectiveness of community intervention approaches in achieving their intended goals related to awareness, knowledge and improved health practices; an initial validation of the framework/tool (see Fig. 5.1) with selected Health Canada community interventions. The interventions were chosen from two strategic

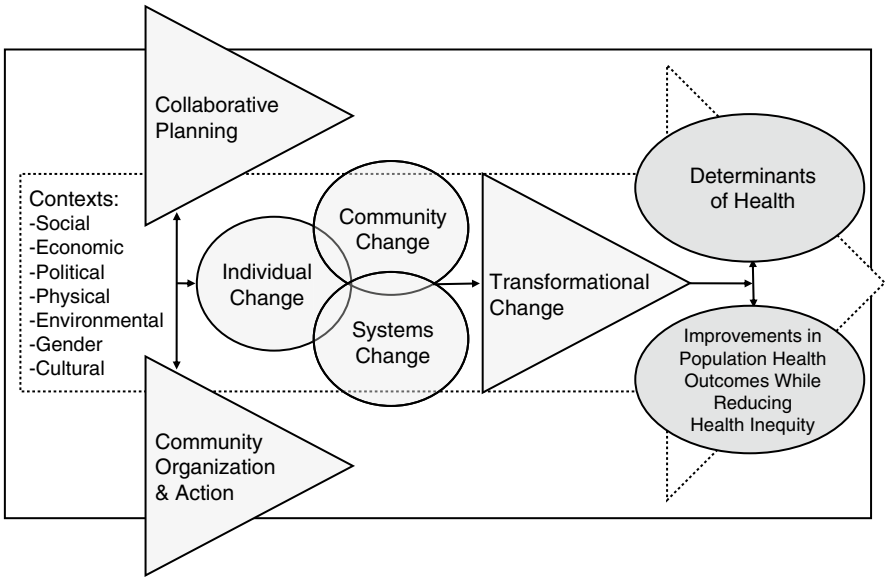

Fig. 5.1 Framework for assessing the effectiveness of community initiatives that promote health

areas (nutrition and HIV/Aids) and three programs (Canadian Prenatal Nutrition Program, Canadian Diabetes Strategy, and Canadian HIV/AIDS Program).

In acting as researchers on this project, the Canadian Consortium for Health Promotion Research proposed to use a modified "realist synthesis" approach as an alternative to the usual systematic review of evidence in order to address some of the complexity that was evident in trying to assess the effectiveness of the HC/PHAC programs.

In order to put this approach into practice, our first task was to identify a framework for assessing the effectives of these interventions, and as importantly to identify key mechanisms of action that were thought to be causally related to successful intermediate and long term health and health equity outcomes. The framework provided a logical basis for an analytic and synthesis strategy that related mechanisms, contexts, and outcomes. Thus, as Pawson argues, the "locus of comparison" is the mechanism(s), which may or may not be activated, and may or may not lead to the projected outcomes. For example, it may be that "Collaborative Planning" is identified as one of the basic processes that are necessary for successful community initiatives. The question then becomes: what mechanisms drive this process forward successfully? However, even if the correct mechanisms are identified, their *causal power* may not be activated in any particular circumstance, or even if the crucial mechanisms are activated (e.g. key stakeholders are involved), their affectivity may be counter-acted by other contextual mechanisms (e.g. political support is taken away). The issue here is that one can take account of important contextual information, without losing the level of abstraction that the mechanisms represent, and therefore maintain the basis for comparison across contexts. In this example, we may end up with "failure" in terms of outcomes; yet, because we can explain the reason the mechanism was not effective, the mechanism itself (involving key stakeholders) is not thereby discounted for its causal power. What we have then as the systematic reviewer's basic task is for any putative mechanism or a combination of mechanisms (M), to "sift through the mixed fortunes of the program attempting to discover those contexts (C+) that have produced solid and successful outcomes (O+) from those contexts (C−) that induce failure (O−)" (Pawson 2002b; p. 345). Of course, in order not to simply generate a list of positive and negative contexts, the contexts themselves must themselves be broken down into interacting processes thus preserving comparability for the purpose of policy making.

5.5.1 Components of the Framework

The five components in Fig. 5.1, represent either staged outcomes (proximal to distal) or parallel processes, depending on whether one is taking a static or dynamic perspective. The first two components are arranged in parallel to emphasize the interactive nature of the planning/action couplet. It has been noted by many researchers that successful actions are dependent upon an iterative process of reflection-in-action (Kemmis 1990; Heron 1996; Hills and Mullett 2000; PAHO

2004), where planning is improved by feeding back reflections from ongoing activities. The middle component represents, on the one hand, intermediate health promotion outcomes, including increased knowledge, awareness, and improved health practices; on the other hand, it represents a dynamic process of diffusion and adaptation in the wider local community. The third component, transformational change, focuses on promoting broader change that has an impact on societal norms and high level policy development. The final two components are again coupled, this time to emphasize the important causal relation between impacting the determinants of health and improving population level outcomes (e.g. smoking cessation is exemplary). These two last components represent broad population level changes and are more distal in terms of available outcomes.

5.5.2 Candidate Mechanisms of the Framework

The list below represents the candidate mechanisms the project has compiled, based on previous work in the field, a review of the literature (presented in details just after the list), an expert review panel, as well a first validation using six cases provided by PHAC/Health Canada (Hills et al. 2004a, b).

These mechanisms can be thought of as guiding principles or criteria for action that assist and promote individuals and communities to focus on their own assets, capacities and skills to bring about change that promotes health. The authors are in the process of developing and testing tools that help to capture the implementation of these mechanisms and their impact on outcomes.

5.5.2.1 Component 1: Collaborative Planning

1. Meaningful participation of all relevant stakeholders
2. Critical dialogue
3. Shared power
4. Project action planning and evaluation

5.5.2.2 Component 2: Community Organization & Action

1. Ongoing education and training opportunities
2. Evolving leadership
3. Sustained mobilization of resources
4. Critical reflection and systematic monitoring

5.5.2.3 Component 3: Transformational Change

1. Develop and attract champion
2. Generate publicity of project successes

3. Influence Public Policy and Decision-making Bodies
4. Work with relevant social movements and provincial and/or national advocacy groups

5.6 Conclusion

The most relevant lessons this very important collaborative research experience taught us about "assets based" approaches revolve around the disjunction that exists between the pervasive discourse about capacities, strengths, assets, and participation surrounding these innovative interventions on the one hand and the dominant approaches to evaluation and evidence synthesis on the other. Whenever we talked to practitioners or read informal accounts of what was most important to the success of these interventions and initiatives we invariably found reference to the key mechanisms we identified in the theoretical literature and in discussion sections of formal evaluations. However, when we looked for formal evaluation data on these key mechanisms, we looked in vain. So often, a formal evaluation report would focus on a set of traditional indicators, such as number of participants (reach) and individual changes in knowledge or behavior. The report would then conclude that there was insufficient evidence of changes related to the intervention, but would go on, in the discussion section, to note the many wonderful things that the intervention had an impact on but were never evaluated or couldn't be evaluated because there were no available indicators or tools to help document evidence of these changes; thus, we are left with more or less persuasive anecdotal accounts.

Another huge gap was in any available means to integrate contextual information into the analysis of effectiveness. There were neither data collection methods developed, nor were there ready-to-hand analytical techniques to synthesize and integrate into effectiveness assessment. Although the realist approach offers an excellent basis for philosophically justifying an approach that focuses on mechanisms and contexts, there is still much more work to do in the development of concrete methodologies and methods for collecting and analyzing data, and then the complex synthesis of these multiple sources of evidence.

As we hope to have shown, "health assets" in particular, are exactly the type of complex phenomena to require matching complexity, subtlety and innovation in methodological technique. Unfortunately, we have too often been left with the false dilemma of either accepting overly simplistic and rigid traditional methodology or being left with less than rigorous and vague references to how difficult this type of intervention research is for evaluators to handle. We have long since made important theoretical advances in understanding public health interventions as part of a complex, socio-ecological system, made up of many interacting parts. The assets based approach is entirely in line with this trend in theoretical understanding. However, we have found that we now need to go out and collect relevant data to test and refine these theoretical postulations. The assets approach will progress only if this key strand of its program is implemented and researchers actively collaborate

with practitioners, policy-makers and community members to help produce this new world of evidentiary resources.

We are not the first ones to point out that evaluating phenomena such as participation, empowerment, social capital and other similar concepts is difficult. Yet, it is now time to stop fretting about how difficult it is and time to start developing innovative solutions. We firmly believe that success on this front is tied directly to how successful we are in developing collaborative, participatory approaches to both primary data collection and to evidence reviews. The former requires much closer collaboration between researchers, practitioners and community makers, while the latter requires much more close collaboration with policy makers, who are often the primary consumers of evidence reviews. We believe that the ECIP initiative in collaboration with the PHAC is one such collaboration, and many other successful collaborations have taken place in other jurisdictions. While it is justified to be very optimistic about the potential of the asset based approach, it will require a lot more groundwork in supporting the evidence base for the effectiveness of asset based interventions.

References

Blane, D., Brenner, E., & Wilkinson, R. G. (1996). *Health and Social Organization: Towards a Health Policy for the 21st Century*. London: Routledge.

Bourdieu, P. (1986). *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge & Kegan Paul.

Dahler-Larson, P. (2001). From programme theory to constructivism: On tragic, magic and competing programmes. *Evaluation*, 7(3), 331–349.

Dixon-Woods, M., & Fitzpatrick, R. (2001). Qualitative research in systematic reviews has established a place for itself. *British Medical Journal*, 323, 765–776.

Durlauf, S., & Fafchamps, M., (2006). Social capital. In P. Aghion and S. Durlauf, (Eds.). *Handbook of Economic Growth*. Amsterdam: North Holland.

Durlauf, S., (1999). The case "against" social capital. *Focus*, 20, 1–4.

Durlauf, S. (2002). On the empirics of social capital. *Economic Journal*, 112, 459–479.

Edmondson, R. (2003). Social capital: A strategy for enhancing health? *Social Science & Medicine*, 57, 1723–1733.

Guba, E. G., & Lincoln, Y. S. (1989). *Fourth Generation Evaluation*. Newbury Park: Sage.

Hills, M., & Mullett, J. (2000). *Methodologies and Methods for Community-Based Research and Evaluation*. Victoria: University of Victoria, Community Health Promotion Coalition.

Hills M., O'Neill M., Carroll S., & MacDonald M (2004a). *Effectiveness of Community Initiatives to Promote Health: An Assessment Tool Report.* Submitted to Health Canada on behalf of the Canadian Consortium for Health Promotion Research/ le consortium canadien de recherché en promotion de la santé.

Hills, M., Carroll, S., & O'Neill, M. (2004b). Vers un modèle d'évaluation de l'efficacité des interventions communautaires en promotion de la santé: compterendu de quelques développements Nord-américains récents. *International Journal of Health Promotion and Education. Hors série – 1, Supplement – Edición especial*, 17–21.

Heron, J. (1996). *Co-operative Inquiry: Research into the Human Condition*. London: Sage.

Kemmis, D. (1990). *Community and the Politics of Place*. Norman: University of Oklahoma Press.

Kretzmann, J., & McKnight, J (1993). *Building Communities from the Inside Out*. Chicago: ACTA.

Kuhn, T. (1970). *The Structure of Scientific Revolutions*. Chicago: University of Chicago.
Labonte, R. (1996). Community health promotion strategies. In PAHO (Ed.). *Health Promotion: An Anthology* (pp. 138–148). Washington, DC: Pan American Health Organization.
Labonte, R. (2004). Social inclusion/exclusion: Dancing the dialectic. *Health Promotion International*, 19, 115–121.
McQueen, D, & Noack, H. (1998). Health promotion indicators. *Health Promotion International*, 3, 117–125.
Minkler, M., & Wallerstein, N. (Eds.). (2003). *Community Based Participatory Research for Health*. San Francisco: Jossey-Bass.
Morgan, A., & Ziglio, E. (2006). Foreword. In Mel Bartley (Ed.). *Capability and Resilience: Beating the Odds.* London: Dept. of Epidemiology, University College London.
PAHO. (2004). *Participatory Evaluation of Health Municipalities: A Practical Resource Kit for Action (Draft): PAHO*. Washington, DC: PAHO.
Pawson, R. (2002a). Evidence-based policy: In search of a method. *Evaluation*, 8(2), 157–181.
Pawson, R. (2002b). Evidence-based policy: The promise of 'realist synthesis'. *Evaluation*, 8(3), 340–358.
Petticrew, M. (2003). Presumed innocent – Why we need systematic reviews of social policies – Commentary. *American Journal of Preventive Medicine*, 24(3 Suppl 1): 2–3.
Potvin, L., Mantoura, P., & Ridde, V., (2007). Evaluating equity in health promotion. In D. McQueen and C. Jones, (Eds.). *Global Perspectives on Health Promotion Effectiveness*. New York: Springer.
Reason, P. (Ed.). (1988). *Hum, Tan Inquiry in Action: Developments in New Paradigm Research*. London: Sage.
Tones, K., & Tilford, S. (1994). *Health Promotion: Effectiveness, Efficiency and Equity*. London: Chapman and Hall.
Whitehead, A. N., (1997). *Science and the Modern World*. Free Press, Simon & Schuster. (First published 1925).
Vingilis, E., & Pederson, L. (2002). Using the right tools to answer the right questions: The importance of evaluative research techniques for health services evaluation research in the 21st century. *Canadian Journal of Program Evaluation*, 16(2), 1–26.
Ziglio, E., Hagard, S., McMahon, L., Harvey, S., & Levin, L. (2000). Investment for Health. Paper presented at the Fifth Global Conference on Health Promotion, Mexico City, 5–9 June 2000.