Chapter 12
Addressing Health Equities in Social Epidemiology: Learning from Evaluation(s)

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Contents

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Abstract This chapter examines how evaluations and evaluative thinking can help in the social epidemiologic study of *complex interventions*. There is increasing interest within the field of social epidemiology in studying interventions, as well as increasing pressure from funders and decision makers to make research more relevant for addressing social problems. Within the field of evaluation, there is a parallel move towards embracing the study of complex interventions – the very kinds of interventions that will almost invariably be the focus of social epidemiology. Using the example of interventions that seek to address health inequities in urban settings, we introduce a framework of steps through which evaluations can impact such health inequities. Rather than discussing a series of tools and methods, we use these steps to describe the importance of thinking evaluatively in addressing complex social problems. Specifically, we highlight a realist approach to evaluation. This approach focuses not only on *whether* an intervention works, but also on *how* it works, *for whom* and *under what conditions* (Pawson and Tilley 1997). This perspective marks a significant departure from traditions of other branches of epidemiology, such as clinical epidemiology, where the *whether* question is paramount and the *how* question is less important, often because of the uniformity and simplicity of interventions (e.g., administration of a drug). Research within epidemiology on social interventions has been relatively uncommon to date, and this chapter seeks to provide some guidance to expanding the literature on the health effects social interventions by engaging with cutting-edge theory on thinking evaluatively.

Abbreviations

RCT	randomized controlled trial
SES	socioeconomic status

12.1 Introduction

This chapter examines how evaluations and evaluative thinking can help in the social epidemiologic study of *complex interventions*. There is increasing interest within the field of social epidemiology in studying interventions, as well as increasing pressure from funders and decision makers to make research more relevant for addressing social problems. Within the field of evaluation, there is a parallel move towards embracing the study of complex interventions – the very kinds of interventions that will almost invariably be the focus of social epidemiology. We use the example of interventions that seek to address health inequities in urban settings in this paper. We introduce a framework of steps by which evaluations can make a difference to such health inequities. Rather than discussing a series of tools and methods, we use these steps to describe the importance of thinking evaluatively in addressing complex social problems.

In this chapter, we highlight a realist approach to evaluation. This approach focuses not only on *whether* an intervention works, but also on *how* it works, *for whom* and *under what conditions* (Pawson and Tilley 1997). As noted earlier (see Chap. 2), the defining feature of the realist approach is its heavy emphasis on understanding the contexts and mechanisms needed for interventions to work in addressing problems like health inequities. In so doing, the realist approach also problematizes the dynamics of an intervention as they play out over time, for instance, eschewing, to some extent, a strict notion of "fidelity." This perspective is a significant departure from traditions of other branches of epidemiology, such as clinical epidemiology, where the *whether* question is paramount and the *how* question is less important, often because of the uniformity and simplicity of interventions (e.g., administration of a drug). Yet while social epidemiologists naturally draw methodological guidance from epidemiology, we argue that the lessons learned about investigating complex interventions within evaluations research are an equally important source of guidance. In this chapter, the term *intervention* is used broadly and includes preventative, curative, behavioural and intersectoral macrosocial interventions that may simultaneously focus on multiple sectors (e.g., water, health services and education) and on routine health services, such as primary health care.

Research within epidemiology on social interventions has been relatively uncommon to date (Berkman 2004). Phenomena like income, education, race, *et cetera*, are attributes and characteristics of individuals and communities and are not immediately amenable to interventions that would change them in the same way that one would, for example, try to redress a vitamin deficiency with a supplement. Although there are examples of social epidemiologic interventions, they tend to focus on redressing the *effects* of low socioeconomic status (SES) or vulnerability, either by using interventions that: (1) are targeted at high-risk groups (e.g., smoking cessation aimed at low-income individuals); or (2) attempt to change the conditions in which people of low SES live that may affect their health (e.g., putting affordable, nutritious foods in convenience stores in low SES neighbourhoods). These two types of interventions address not only the *mechanisms* by which low SES translates into poor health, but also the ways in which *context* is involved in the causal chain between low SES and poor health. In other branches of epidemiology from which social epidemiology draws much of its logic and methods it is relatively unimportant *how* or *why* an effect is seen (e.g., drug trials), nor is it considered part of the problem to analyze *under what conditions* and *for whom* the intervention works. Indeed, the logic of the randomized controlled trial (RCT) attempts to exclude such questions from explicit consideration. In these ways, the parent discipline of social epidemiology and many of its siblings explicitly avoid complexity in favour of simplicity and reductionism through control of a variety of confounders, either by design or by analysis. We suggest that these phenomena, mechanisms and contexts, the cornerstones of a realist approach to interventions, are critical to thinking evaluatively about social epidemiologic research on complex interventions.

Interventions focussed on health inequities are complex in multiple ways. Surprisingly little research on the evaluations of complex health interventions focuses on the sources and nature of complexity (Riley et al. 2008). In our experience,

interventions focussed on long-term outcomes such as health inequities need to address at least three different kinds of complexity. First, there is complexity due to the multiple, interacting components that are involved in complex health interventions. A second source of complexity is the dynamic nature of programs, which has implications for both program theory and evaluation design. A third source of complexity is due to contextualization. Public health programs are located in specific settings, and the act of translating an initiative into a specific setting requires adaptation to local conditions (see Chap. 15). The absence of a clear *a priori* theory implies that complex health interventions rarely have a blueprint at the outset for how their suspected mechanisms will operate in the specific interventional context. Intervention adaptation (i.e., adaptation of subjects in the target population to the intervention) provides another source of complexity that is usually ignored in most evaluation and social epidemiologic research on interventions. Each of these sources of complexity has multiple interacting components, and both dynamic complexity and contextualized complexity have implications for theory and design.

Realism is one of the very few evaluation and social science approaches that attempts to address complexity of interventions. The realist-based approach has many strengths, but most of all it shifts the focus of social epidemiologic research from "does a program work?" to "what is it about a program that makes it work?"

12.2 Why Should Social Epidemiologists Bother with Evaluations?

Evaluation can be defined both as a means of assessing performance and as a means of identifying alternative ways to deliver services. For example, the new Canadian federal policy on evaluation defines evaluation as "the systematic collection and analysis of evidence on the outcomes of programs to make judgments about their relevance, performance and alternative ways to deliver them or to achieve the same results" (Treasury Board of Canada Secretariat 2009).

Evaluations have multiple purposes and ways of responding to health inequities. As described in Table 12.1, evaluation of health interventions can determine not only if a given program or policy makes a difference in impacting health inequities, it can also begin to elucidate the theory about and causal mechanisms of social processes and their impacts on health inequities. In this sense, engaging in evaluations research can assist social epidemiologists in informing solutions to growing social problems and can move the field of social epidemiology towards more solution-focused research (see Chap. 1). Furthermore, social epidemiologists should consider conducting evaluations research as a means of engaging in policy approaches to epidemiology, in which methods are applied to specific problems defined by end users of knowledge (e.g., decision makers within organizations or at varying levels of government). Conducting evaluations research is also a means of engaging in public approaches to epistemology, in which research is undertaken with and for those who are affected by the issues under study.

Table 12.1 Multiple purposes of evaluations

Purposes of evaluations	Description
Assessment of merit and worth	"…the development of warranted judgments about the effects and other value characteristics of a project or policy" (Mark et al. 2000). In the context of urban health inequities, the question posed is: Did the intervention make a difference in impacting urban health inequities? This purpose of evaluation is most closely aligned with the experimental/trials view of evaluation
Program and organizational improvement	"…efforts are made to provide timely feedback designed to modify and enhance project operations" (Mark et al. 2000). Given the complex nature of intersectoral approaches to health inequities, program and organizational improvement might be very critical to programs and systems that attempt to impact health inequities
Oversight and compliance	"…estimate the extent to which a project meets specified expectations such as the directives of statutes, regulations, or other mandates, including requirements to reach specified levels of performance" (Mark et al. 2000). This purpose of evaluation can also connect with the "fidelity" of the implementation of intervention: Is the intervention being implemented as planned?
Knowledge development	"…refers to efforts to discover and test general theories and propositions about social processes and mechanisms as they occur in the context of social policies and projects" (Mark et al. 2000). This is an especially important purpose of evaluations of interventions that target health inequities. Given the complexity of intersectoral approaches to addressing inequities, there is quite often a lack of clarity on the theory (and the causal mechanisms) that informs the development of the interventions at the outset of the intervention. *One of the important purposes of evaluation is to develop clarity on the intervention theory over time*

12.3 The Complexities of Conceptualizing Health Inequities

We start with a model that explicates the evaluative challenges of addressing health inequities (Sridharan et al. 2009). For simplicity, this model illustrates the limitations of typical approaches to redressing inequities (i.e., remedial, service-oriented, unisectoral approaches), as opposed to suggesting structural change to address the root causes of inequity (see Chaps. 1, 6, 9 and 10). This model also does not consider the multiple complexities involved in intersectoral approaches to addressing health inequities, which we look at elsewhere in this chapter.

The model outlined in Fig. 12.1 describes three levels. The first level is that of the individuals (e.g., residents of a city or a community) whose downstream health needs are being met by multiple providers and sectors. At the second level, there are upstream and downstream systems of delivery (e.g., community providers, hospitals, short-term interventions, etc.). Finally, at the third level, there is a

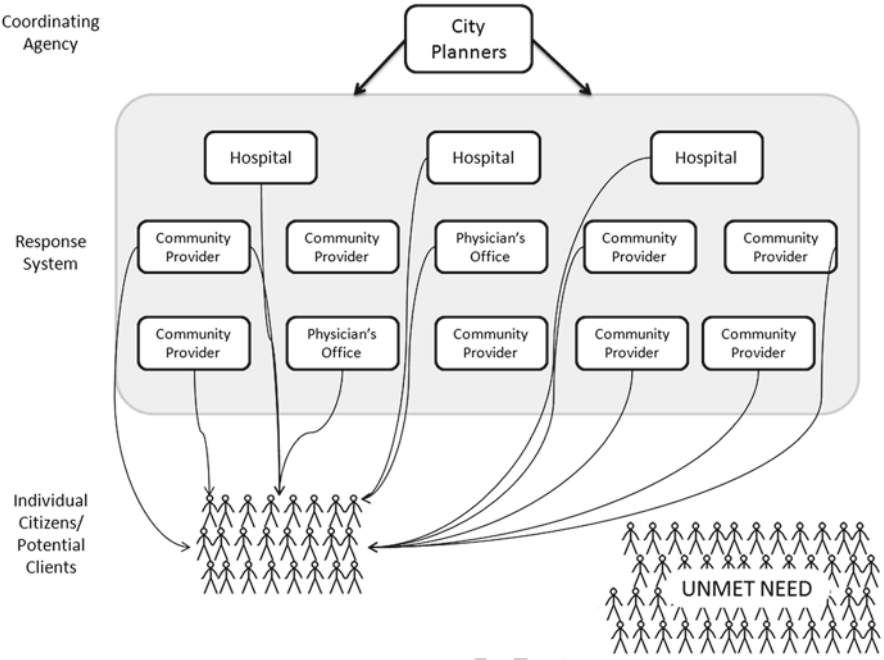

Fig. 12.1 A multilevel model of health needs

coordinating body (e.g., health department or city planner) – in reality, multiple coordinating bodies at different levels of government. Such entities are responsible for ensuring that the health system and related sectors are meeting the heterogeneous needs of the population, that the various health care providers' and services' responses to health inequities are coordinated and that the system does not systematically disadvantage some individuals or groups of individuals. Furthermore, these coordinating bodies must avoid the problem of fragmentation in which entities focus and act on the parts of a system "without adequately appreciating their relation to the evolving whole," as such fragmentation can function to increase social inequities (Stange 2009).

Whitehead (1992) defines health inequities as "differences in *health* that are avoidable, unfair and unjust" (emphasis added) and systematically related to social inequality and disadvantage. Whitehead further emphasizes reducing these systematic differences (see related discussions in Sen 2002 and Culyer 2007). This definition raises a number of questions that are relevant to social epidemiologists: How can an intervention that is often uncoordinated with the other aspects of the health system or other sectors help enhance health outcomes? What role can an intervention play in equalizing the outcomes for individuals whose needs are not being met? How can social epidemiologic research address the root causes of health disparities that lie in the broader social and economic systems far beyond the health sector?

Despite oversimplifying, the model for understanding health needs presented in Fig. 12.1 makes three points:

1. Any intervention of either a policy or program is part of the ecology of a complex system, part of a social determinants approach to health with both upstream and downstream needs, such that a number of individuals' needs are being met through a range of interventions.
2. For some individuals, there will need to be coordination between multiple providers.
3. There are a large number of individuals whose needs are *not* being met by upstream or downstream interventions. It is highly likely that there are a large number of individuals with complex disadvantages who might not have their needs met through a single provider or through the primary care system.

These points highlight the challenges for social epidemiologists when engaged in evaluations research. When conducting an evaluation, social epidemiologists need sufficiently detailed data to understand the *context* of the complex system in which the intervention is located. Furthermore, they need to explicate the *mechanisms* by which the interventions can make a difference (e.g., coordination between multiple providers), and also highlight the *dynamic processes* that may be responsible for the generation of the health inequities (e.g., dynamics of unmet need). They require knowledge of what service interventions and program mixes work for whom and under what contexts. Simply stated, t*he challenge of evaluations research within the field of social epidemiology is to locate the intervention being evaluated within the context of the processes that generate health inequities in the first place.*

Social epidemiologists must also recognize the role of data not just for measurement and operationalization but also for planning an actionable response to addressing health inequities (see Chap. 4). This is a difficult challenge, as often there is "a paucity of data to inform decisions about which individual or contextual interventions (i.e., interventions that address the environment or that are most equitably available to people regardless of their SES or behaviour) will contribute the most to reducing disparities and improving health" (Gerberding 2005). However, data may not be enough. Social epidemiologists must also leverage knowledge of past patterns of participation and engagement with social interventions and the health system to develop a strategic response to health inequities.

12.4 Moving Beyond Programs: The Ecology of Health

While the earlier discussion described a singular intervention, it is important when conducting evaluations research to also consider the broader health system (Watt et al. 2011). The need to move beyond a focus on individual programs is also driven by an increased understanding of the social determinants of health, which calls for intersectoral approaches to addressing health inequities. Intersectoral actions imply

a move away from piecemeal, fragmented solutions towards thinking more broadly about a network of solutions.

In order to move beyond a singular focus on programs, social epidemiologists must learn more about the ecology of health. In other words, social epidemiologists must understand who engages and does not engage with the regular health system. The big question for addressing health inequities is not simply "does intervention 'A' work?" but rather "how best does the 'ecology of services' work as a whole to make a difference to an individual's unmet needs and quality of services?" An intersectoral systems approach offers the advantage of focusing on such connections: "it is a paradigm or perspective that considers connections among different components, plans for the implications of their interaction, and requires transdisciplinary thinking as well as active engagement of those who have a stake in the outcome to govern the course of change" (Leischow and Milstein 2006).

12.5 Intersectoral Responses to Health Inequities: Background

Developing intersectoral approaches to addressing health inequities will require a theoretical framework that describes how "collaborative problem-solving capacity" can be developed (Sridharan and Gillespie 2004). Moreover, there needs to be greater focus on how evaluation frameworks can help with the development of such intersectoral approaches (Fox 1996). There is limited evidence on good models for developing intersectoral partnerships (Babiak 2009; Shapira et al. 1997), and there are relatively few examples of collaborations between upstream and downstream organizations or any evidence that such collaborations matter in addressing health inequities. Furthermore, while the challenges of developing intersectoral responses are big at the programmatic level, the challenges are even greater if one seeks to create synergies between policies. Social epidemiologists engaged in evaluations research can help to promote coordination between policies by determining for policy makers the most effective ways to integrate public programs and policies such that the coordinated system has synergistic effects (Smith and Spenlehauer 1994).

In addition to planning and initiating intersectoral partnerships, work is required to sustain these partnerships once formed (Bourdages et al. 2003; Sridharan et al. 2006). At the programmatic level, the factors that predict sustainability of cross-program collaborations include "having a history of collaboration, a diverse and broad coalition, a clear vision and operation guidelines and diversified and sufficient funding" (Rog et al. 2004). Of course, cross-sectoral approaches, as valuable as they may be, do not often address broader structural causes of inequities. Despite strong potential, there is also a dearth of research on the health impacts of such interventions (e.g., changes in income support, unemployment insurance and other programs and policies) (Berkman 2004). Where such studies have been done, the complexity is seldom fully addressed, limiting the knowledge that can be drawn

from the research. Even then, the traditional simplistic approaches to understanding the nature of the intervention are insufficient. This chapter discusses how evaluation methods, approaches and designs can help address some of these challenges.

12.6 A Realist Approach to Evaluating Complex Interventions

Pawson et al. (2004) describe seven characteristics of complex interventions. Table 12.2 describes the seven characteristics that might emerge in planning an evaluation from a realist approach. Programs are dynamic (i.e., change over time),

Table 12.2 Pawson et al.'s (2004) features of complex interventions

Features of complex interventions	Examples of evaluation questions
The intervention is a theory of theories	What are the stakeholders' theories of the intervention?
	Do different stakeholders have different theories of how the intervention will impact health inequities?
The intervention involves the actions of people	How do key stakeholders co-construct the intervention?
	What are the active ingredients of each of the interventions?
	Is the actual "journey" of the intervention different from the planned "journey"?
	Is there buy-in from the stakeholders for the theory of the intervention?
The intervention consists of a chain of steps	What are the implications of a complex chain of program activities for impacting long-term outcomes such as health inequities?
	How do upstream and downstream interventions connect with the causal chain implicit in the intervention?
These chains of steps or processes are often not linear, and involve negotiation and feedback at each stage	How does user involvement change the planned intervention over time?
Interventions are embedded in social systems and how they work is shaped by this context	How did the context of the intervention influence the planning and implementation of the intervention?
	What role did the organizational context play in shaping the eventual intervention?
Interventions are leaky and prone to be borrowed	How and why did the intervention change over time? Did the program theory change over time?
Interventions are open systems and change through learning as stakeholders come to understand them	How did the experience of implementing a complex intervention change program staff's perceptions of the mechanisms involved in impacting long-term outcomes?
	What are the implications of such learning for future interventions?

Adapted from (Pawson et al. 2004)

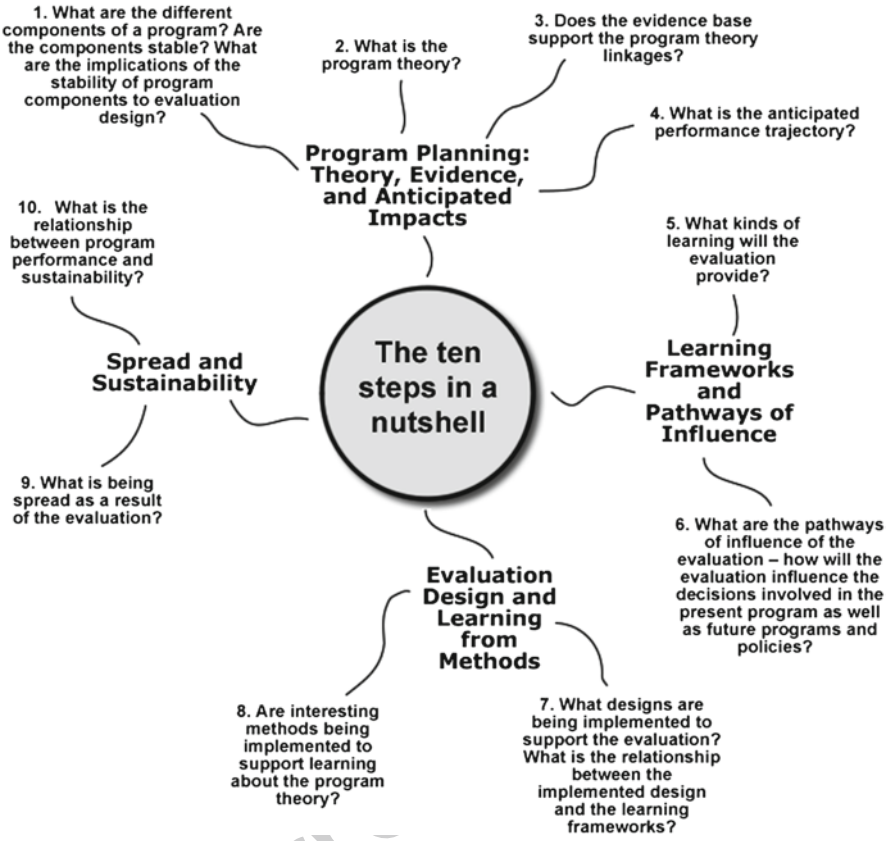

Fig. 12.2 Key issues in valuating complex health interventions (Reprinted from Sridharan and Nakaima 2011, © 2010. With permission from Elsevier) [AU2]

depend critically on the context in which they are implemented and change as a result of stakeholder reasoning. One of the implications of a realist view to complex programs is a recognition that program implementers need help to align complex programming with long-term goals (such as health equity).

Based on the above discussions, we propose the following four-part framework for evaluating health inequities:

- Intervention planning, implementation and theory
- Structure of evaluation influence
- Design, data and methods
- Spread and sustainability

The following subsections each consider one of ten questions that need to be addressed as part of the framework of evaluation (Fig. 12.2). Each subsection describes the question in detail. Taken as a whole, these subsections address some

basic "how to" issues that need to be considered in the evaluation of complex health interventions. Many of these issues are described in greater detail in a recent publication (Sridharan and Nakaima 2011).

12.6.1 The Key Components of the Complex Intervention

One of the surprising aspects of the evaluation literature is that there is little reflection on the implications of the complexity of the intervention for the evaluation, a weakness it shares with social epidemiologic research on the health (equity) impacts of interventions. Will the evaluation for a simple aspirin-type intervention follow the same approach as designing an evaluation system or a complex community initiative focused on health inequities? There is often a haste to rush into the evaluation without a thorough understanding of the intervention, which has consequences that have been described above. But since interventions are "complex systems thrust upon complex settings" (Pawson et al. 2004), the work of carefully describing all components of the intervention and its context is critical. Complexity has implications for both the stability and the dynamic nature of the components of an intervention. A complex health intervention with very many components that change over time may need a very different evaluation design than a simple intervention that is stable over time (Morell 2010; Patton 2010).

12.6.2 The Program Theory of the Complex Interventions

Fundamental to the evaluation of a complex intervention is developing some initial ideas of how the intervention (or, from a strategic perspective, a complex set of interventions) is likely to work. Specifically, how will an intervention address health equity outcomes? What is the relationship between the processes that constitute the complex intervention and its short- and long-term outcomes? Under what contextual conditions is the complex intervention likely to work (Mayne 2001; Pawson and Tilley 1997; Pawson 2006; Pawson and Sridharan 2009)? What mechanisms are needed for the intervention to thrive? And, quite fundamental to health equities: is the intervention likely to have very heterogeneous impacts for different groups in various contexts? A proliferation of questions surfaces on developing the initial program theory. Given both the complexity of the intervention and the incomplete knowledge that initially exists in understanding how to address health inequities, part of the focus of the evaluation needs to be sensitive to the development of an emergent theory of change for the intervention over the course of the evaluation (Sridharan and Nakaima 2011). *In our experience with evaluations of interventions that target health inequities, a program theory is often not at all explicit.* Although the development of the program theory is not necessarily going to become core to the discipline of social epidemiology, if epidemiologists are going to have an impact in research on interventions, it is an activity they should be promoting and participating in.

12.6.3 Learning from the Evidence Base

Although an intervention may be new, the reality is that there often exists an evidence base of how similar interventions have done in other fields and in other contexts. The program theory can be further strengthened by conducting an evidence synthesis for each of the linkages of the program theory. This is the approach adopted by a recent method of synthesis called realist synthesis (Pawson et al. 2004; Pawson 2006). The focus of this method of synthesis is on understanding the mechanisms and contexts in which each of the key linkages in the program theory is likely to fire. Rather than focusing on average-level effects of complex interventions, realist synthesis zeroes in on the underlying mechanisms of change and on whether a mechanism operates differently in differing contexts (see Chap. 11). Moreover, there may be invaluable information on the mechanisms of interest that are used in health programs from completely different substantive areas (e.g., crime and delinquency), and such information may also be valuable.

12.6.4 The Anticipated Timeline of Impact

A complex intervention might take time to impact health outcomes. It is important that the evaluation help develop knowledge about the anticipated timeline of impact of complex health interventions. According to Berkman (2004), one of the reasons that many very promising social interventions studied in RCTs have failed to show a sizeable impact on health is that not enough time was allowed. The state of knowledge of social science theory is such that information on anticipated timelines of impact for complex health interventions is often missing. One approach that we have used successfully in prior evaluations is to engage stakeholders who have been involved in prior interventions to help explicate such an anticipated timeline of impact (Cook 2000; Sridharan et al. 2006). Understanding what outcomes are likely to be impacted by the complex health intervention and when is important to the evaluation design and in moderating expectations among researchers, decision makers and community partners.

12.6.5 Learning Framework for the Evaluation

There needs to be clarity on the types of learning that an evaluation of a complex health intervention can provide. Multiple types of learning about a complex intervention might be possible from an evaluation. These "learnings" include: learning about the impacts of the complex health intervention, learning about the dynamic processes that might be critical for the complex intervention to work and learning about the organizational context that might be necessary for the complex intervention to flourish. All evaluations should be guided by the types of information that are

needed by stakeholders and the timing of such needs (i.e., when will the information be useful?). This focus on utilization may not be as obvious as it might sound – far too many decisions about evaluations are based on abstract notions of rigour that sometimes do not correspond to generating information in a timely manner that stakeholders will find useful.

12.6.6 The Pathways of Influence of an Evaluation

Just as there is need for clarity about the pathways by which a complex intervention can impact outcomes, there is a similar need to be clear about the pathways by which the evaluation can influence future and present innovations. Recent evaluation literature (Mark and Henry 2004; Henry and Mark 2003) describes the multiple individual, interpersonal and collective processes by which evaluations can bring about influence. While there has been some research on knowledge translation of research based on interventions in social epidemiology (Petticrew et al. in press), such thinking needs to be incorporated into the development of the evaluation of health innovations. Ultimately, an evaluation is an investment that can come at the expense of other programming resources, so there needs to be clarity on the pathways of influence by which the evaluation itself can make a difference.

12.6.7 Assessing the Impact of the Health Intervention

A fundamental step in evaluation is developing a design that includes methods and measures to understand if the complex intervention is working. This implies: (1) understanding what a successful impact is defined as for the intervention; (2) having clarity on the timeline of impact; (3) developing clear measures that can be used to study the impact of the intervention; (4) that measures to study the impact be informed by the theory of change of the complex intervention; (5) that the measurement system should include measures of the dynamic contexts and mechanisms that might be necessary for the complex intervention to work; and (6) an evaluation design that can help rule out alternative explanations for changes in key outcomes. A good evaluation design also needs to shed light on the actual program's mechanism of change or, alternatively, test the hypothesized mechanism of change. It is crucial to have measures of the impact on aspects of the program theory in all circumstances, but particularly if the intervention does not meet expectations on the endpoint outcomes. In such cases, knowledge about the impact on markers of the program theory or on intermediate outcomes is essential (Berkman 2004). Knowledge about the impact on program theory elements might also be extremely critical in assessing the generalizability of the program in order to make decisions about replicating or adapting a program to a new setting. A good design should shed light on the contexts needed and the mechanisms by which programs work.

A number of evaluation theorists argue for the need for a counterfactual (i.e., a comparison or control group to study what would happen in the absence of the intervention), and this is also the case in social epidemiology (Berkman 2004; Kaufman and Poole 2000). While such designs have strengths, depending on the complexity of the intervention, they might not be practical because there may be lack of clarity of what constitutes the intervention at the start of implementation. The intervention might evolve over time and might depend heavily on local context for the positive impacts to accrue. An experimental design might not pay as clear attention to contextual factors that might be very critical in the success of an intervention (Pawson and Tilley 1997). For many interventions, in other words, the study design must adapt to the intervention in order to maximize what can be learned from it, rather than the other way around, which is more common.

12.6.8 Learning About the Pathways of Impact of the Complex Intervention over Time

One key step in the evaluation of a complex intervention is to learn about a theory of change of the complex intervention over the course of its implementation. Given the nonlinear nature of some complex interventions (Patton 2010), there are likely to be many "surprises" (Morell 2010) in the processes by which a complex intervention can impact outcomes. An emergent theory of change needs to reflect on the processes by which complex interventions can impact outcomes over time. Some of the points to consider in developing such an emergent theory of change include the following: (1) pay close attention to the unintended consequences of a complex intervention (Morell 2010; Patton 2010); (2) focus on both the "macro" social processes and the "micro" individual-level contexts that are essential for the impacts of the intervention; (3) if possible, explore the systems dynamics underlying the process of change of the intervention; and (4) pay attention to both the networks and the key events in the course of the implementation of the intervention that are important for the impact of the intervention. A wide variety of methodologies are available to explicate such emergent theories of change (Patton 2010; Sridharan and Nakaima 2011).

12.6.9 Spreading Learning from an Evaluation

A key purpose of the evaluation is also to reflect on what the types of learning need to be spread as a result of the evaluation (Massoud et al. 2006). A complex intervention typically might consist of many components; an evaluation needs to reflect on the parts of the intervention that are worth replicating in other settings. Is it all of the components? Are there only certain components of the complex intervention that need to be replicated widely? Or is the focus on more specific learning, like knowledge about the context and mechanisms that enhance the success of the intervention?

12.6.10 Reflections on Sustainability

Evaluations also provide enormous opportunities to help decide whether interventions need to be sustained. There is often an implicit claim that evaluations help make decisions about sustaining innovations. Yet the relationship between performance and sustainability in the evaluation literature continues to be very limited. Issues of sustainability and performance are especially relevant for complex interventions because often the timelines of impact of complex interventions might be very unclear. Sometimes an intervention might not produce tangible benefits for many years before it results in huge impacts. Understanding such anticipated timelines of impact becomes especially critical given the potential nonlinear patterns of change that might be part of the impact processes of complex interventions.

Should an innovation be discontinued if it does not meet performance targets? As discussed in Sridharan and Nakaima (2011), this is a difficult question, and especially for some complex health interventions, because the trajectory of impact of even a successful intervention can be quite nonlinear, as previously stated. Some performance outcomes might get worse before they get better. Additionally, there is no reason for the trajectory of the performance outcomes to be linear or monotonic over time. Key ideas related to sustainability include:

1. Decisions to sustain the intervention should be guided by a theory that can help inform the drivers of performance of the intervention. Without a clear program theory it is hard to tell whether the intervention needs more investment or less.
2. There is a need to pay attention to the process by which performance targets are set. Milstein et al. (2007) make the point strongly about the lack of rigour and quality by which performance targets are set.
3. There is a need to pay attention to the systems dynamics involved in the process of implementing social interventions. The nature of the impacts of the social interventions might be such that they take a while to accrue.

12.7 Conclusions

In this chapter, we have attempted to draw upon evaluations research and, notably, new innovations in the realist approach to evaluation to offer concepts that could be helpful in rethinking the role of social epidemiology in its examinations of interventions that may affect health and health equity. In so doing, we have illustrated what can be learned from evaluations research as a field of study, and we have also expanded upon traditional notions of what can and should be learned from evaluations. We have not been prescriptive in our approach; social epidemiologists who are engaged in research on interventions and their impact on health equity are best placed to rethink the subdiscipline. Of course, one question that we have sidestepped is whether a social epidemiologist is still a social epidemiologist if they take all of the suggestions from realist evaluation. We think that social epidemiology has many

unique contributions to offer the study of the health (equity) impacts of interventions and that learning from evaluations represents an opportunity, not a threat. That opportunity is to give social epidemiologists more potential tools and concepts to bring to their engagement with the problem of reducing health inequities.

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