Chapter 5
A New Epidemiology

Introduction

Epidemiology has been a regular part of traditional social planning. In this case, the general idea is to determine the level of a problem in certain geographical or social region. Calculations are often made, for example, of the incidence and spread of a disease (Friedman 1994). Typically, these estimations are based on the presence of various empirical referents, particularly, certain demographic and environmental factors. But following the advent of a community-based philosophy, this mode of social assessment is no longer thought to be adequate.

The field of public health has not been exempt from this trend. But many analysts believe that these modes of assessment are abstract and reductionistic (Susser 2004). For example, communities are treated as if they represent clusters of socioeconomic traits. Furthermore, certain cultural features and psychological propensities, such as motivation or possibly moral character, are linked to the empirical characteristics of an environment. This abstract model is used to predict the onset, distribution, and impact of a problem. The notion that a community is more than a place, circumscribed by empirical indices, is not given serious consideration.

The so-called "new public health" arose against this strategy to design and implement more socially sensitive assessments and interventions (MacKain et al. 2003). Some critics contend that this approach can be traced to the Lalonde Report issued by Marc Lalonde, the minister of health in Canada during the early 1970s. In this document, the idea was broached that the medical model may have severe limitations, specifically with regard to prevention (Hunter 2007). Too much emphasis, in short, is devoted to the individual and disease. Accordingly, the focus should be on the "health field"—a more holistic and community-sensitive approach—thereby encouraging a more encompassing strategy to health assessment and the creation of interventions. In this so-called paradigm shift, the ideas of complexity and uncertainty rise in importance (McQueen 2007).

But for the most part, communities are still treated as natural sources of data, with little emphasis placed on how persons define their problems and possible remedies. The strength of the new public health, on the other hand, is that communities are viewed to be dynamic and intricate, with rich cultures and knowledge bases that

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influence perceptions of health, illness, and successful interventions. Planning, accordingly, is guided by an ecological perspective and is considered to be holistic.

In general, the thrust of this change is that communities are portrayed to be complex, and should be investigated more closely than is possible when the focus is on empirical indices. If communities consist of interlocking processes, and have a "life-course" or history, a broader perspective is needed to study adequately these groups (Tulchinshy and Varavikova 2010). Specifically important is that a community should not be identified solely with empirical and, thus, lifeless measures.

For this reason, the new public health is often associated with community-based planning (Frenk 1993). Nonetheless, this characterization may not be correct. Although the process and context are incorporated into the new orientation, how a community is constructed is ignored. Hence the biography of a neighborhood, along with the implied mores and proclivities, often remains hidden. But even when interpretation is recognized, this component does not necessarily have any significant impact on the social reality that is operative.

In order to become community-based, advocates of the new public health epidemiology must begin to appreciate the embedded nature of all social phenomena, including diseases and cures. With all behavior mediated by participation and socially constructed, reliable observations must emphasize more than the empirical qualities of persons and their environments. Effective interventions, therefore, depend on epidemiology becoming more attuned to the interpretive character of a community's reality.

Traditional Public Health

The guiding principle of the traditional model of public health is the identification of "high risk" populations (Schwartz et al. 1999). This task is accomplished by trying to specify the factors that have contributed to this condition. The rationale behind this strategy is to effectively channel interventions, while using resources in the most propitious manner possible. Standard empirical referents such as age, education level, income, and geographic location are invoked to calculate the likelihood that a problem will emerge in a specific population.

Associated with these empirical indicators are assumptions about both the presence of pathogens and the buffers, or "protective factors," necessary to forestall the onset of an illness (Lucas and Lloyd 2005, pp. 75–77). A neighborhood with a low level of education and high unemployment, for example, is considered to be problematic, or a high-risk location, due to the low quality of the buffers available.

In this example, the potential presence of a particular pathological agent is calculated against the likelihood of resistance or successful remediation. A poor neighborhood with few preventive buffers, such as education or stable families, is thought to have an unfavorable "risk ratio" (Kellehear and Sallnow 2012). Furthermore, these dire situations are where interventions should be directed.

Eventually a "cause-effect onset matrix" is established, along with probable outcomes of various interventions (Schwartz et al. 1999). In effect, an algorithm is introduced with certain values attached that have specific parameters. Following the introduction of a range of inputs, such as income levels, education, or quality of housing, comparisons can be made between communities. Profiles can be established that specify where social problems are likely to arise. A constellation of particular variables, weighted in a specific manner, can illustrate the location where an illness or crime may erupt.

Clearly this methodology represents the worst sort of number crunching. Variables are decontextualized and given exact identities, stripped of any social contingencies (Weed 1998). Without a context these data can be standardized to facilitate data processing, without any fear of being distorted. And once these clean data are available they are entered into an algorithm, which is equally abstract, and assigned a value. The end product is a statement of probability about the likelihood of an event occurring in a particular locale.

The imagery that supports this kind of analysis is very realistic. Terms such as barriers, structures, networks, and systems, for example, are used to describe communities. Additionally, diseases are imagined to travel along certain channels, through specific networks, and reach certain barriers. The implication is that the factors that influence the on-set of an illness are real and substantial, along with those that promote health. Epidemiology, in this sense, is dealing with facts and laws related to the causes, pathways, and inhibitors of illness.

In standard epidemiological assessments the principle of "natural causality" is thought to be operative (Susser and Susser 1996). That is, specific empirical elements are thought to foster, or cause, certain outcomes. The point, in this regard, is to discover these variables and their connections. And with the proper calculations, where an intervention should be directed can be clearly specified. This realistic imagery, moreover, facilitates the assumption that data are objective when they mimic these substantial facets of a community.

Furthermore, these linkages are most often described in biological terms. What could be more concrete than such a portrayal? Although biological descriptions are metaphorical, they portray the social world in very believable terms. Like a body or organism, a community can be described to respond in very natural ways to specific determinants. A living organism that is attacked by a pathogen, for example, will survive if this entity has sufficient resources to battle an invader. Indeed, most persons find this sort of portrayal to be entirely plausible. Additionally, they believe that a body operates according to natural and reliable rules. Once these rules are discovered, and the "disease vectors" are identified, intercepting the spread of a problem is possible.

But eventually these models become very streamlined and focused, or the advantages of this approach are lost. Parsimony is truly important. After all, if variables are allowed to proliferate and linkages expand, efficiency is compromised and concise connections are difficult to specify. What began as a tight description of relationships among variables becomes plagued by contingency and increasingly vague probabilities. What is the worth of these models if precision is lost?

Due to this mode of calculating risk, traditional epidemiology is often characterized as operating within a "black box" (Susser 2004). In this regard, only those elements that can be readily observed are introduced into an analysis. Furthermore, anything connected with subjectivity is thought to be fuzzy and unreliable. All determinations, therefore, are the result of inputs that are (re)arranged by mathematical models to generate outputs, or risk estimates.

Nonetheless, due to this parsimony, the resulting descriptions can easily begin to drift away from a community. These descriptions, in other words, can become increasingly abstract and mask the actual disease process. How barriers and networks are presumed to function in these models, for example, may begin to obscure the ways in which persons interpret and respond to events. Concreteness is thus substituted for accuracy. In scientific parlance, this outcome is referred to as "misplaced concreteness" (Whitehead 1967).

In essence, what occurs is that an examination of substance is equated with understanding. In other words, whatever can be readily measured becomes the focus of attention, while any other source of knowledge is ignored. The personal or collective experience of these so-called objective factors tend to fall into this latter category, because this dimension is thought to defy rigorous measurement. Within this framework, interpretation is envisioned to be elusive. At this juncture, theorizing about context is mostly irrelevant (Krieger 2011).

What is overlooked by this imagery is the actual interaction that constitutes and sustains a community. How persons relate to one another, and possibly facilitate or retard the disease process, is equated with the structural factors that are presumed to either transmit or inhibit the spread of a pathogen. But assumed by this perspective is that facts are empirical and awaiting discovery by those who are trained to ignore the subjective side of life. Within this empirical framework, this human property is thought to derail the search for the causes of illness.

Using terms such as impact and outcome tend to conceal how perception mediates social existence, even the onset of disease. The point of this critique lodged by community-based planners is that factors do not simply have impact on persons; certain conditions, likewise, do not necessarily produce particular outcomes. Persons are not this passive but engage their worlds and react to how events are constructed within a community.

But even within traditional epidemiology the attempt has been made to temper the prevailing determinism. Take, for example, the traditional "epidemiological triangle," which consists of hosts, agents, and environmental factors (Cwikel 2006, p. 7). The basic idea is that disease on-set involves a host who has an effect on this process. In this sense, the aim is to incorporate some sense of social context into the analysis of probability. The course of a disease, accordingly, is never certain, due to influence of this human element.

What should be noticed, in terms of this triangle, is how persons interact with their environment and one another. But in the end, the models adopted by the traditional public health provide concrete but socially uninformed descriptions of so-called "illness behavior." Causal statements are provided that specify the relationships between, for example, environmental degradation and illness, without giving

much attention to how persons perceive their environment, evaluate their health, or decide to pursue help. Although a human factor is present in this triangle, which could be treated as introducing interpretation and agency, an almost natural and mechanical link is presumed to exist between these three elements. The final product of this outlook is the formulation of a "web of causality" and a broad picture of exposure and disease on-set (Krieger 1994). But clearly, at no time is any serious attention directed to how persons construct their lives and social worlds.

The New Public Health

The aim of the new public health is to avoid the reductionism linked to traditional epidemiology. For this reason, an ecological strategy is adopted, sometimes known as "eco-epidemiology" (Baum 1990). The general critique of the traditional perspective is that parsimony in building models may improve clarity but is also misleading. In fact, the entire social world is overlooked. Specifically, a causal web of potential influences is substituted for biography and actual interaction. For example, within the web of causation time and place are ignored (Krieger 2011). Although social life is treated as a "dynamic state," the world that is constructed by communities is obscured.

Within an ecological framework, persons are understood to be part of a seamless web of influences, including physiology, culture, and the economy. Engel's (1977) well known call for a "bio-psycho-social" agenda is representative of this trend. The community mental health movement in the USA was guided by this principle and the elevation of culture, broadly defined, in importance when assessing persons and their environments.

Due to this ecological perspective, the isolation of risk factors is no longer the guiding principle in any judgment of need or remediation. Indeed, social indicator analysis, and the underlying empiricism, is thought to be myopic. Explanations of behavior are expected to be holistic and take into account how persons interact with others and their surroundings. Specifically important is that this interaction is believed to be nuanced, multivalent, enmeshed in a host of relationships and conditions, and is not entirely predictable.

The phrase that has been adopted to capture this sentiment is "person-in-environment" (De Hoyos 1989). In this sense, person and environment are not two separate variables. Instead, through participation, persons are understood to alter themselves and change their surroundings. This interaction should be the focus of attention, and is thought to provide novel insight into the conditions that influence behavior but elude causal thinking.

The point of this ecology, therefore, is to extend any investigation in at least two directions. At the individual level, persons are presumed to have a "life-course" and are approached in a holistic manner (Elder 1985). Instead of passing through developmental stages *ad seriatim*, accumulative effects are considered to be important. The on-set or resistance to disease, for example, should not be viewed as a unique

position in a causal chain. Persons, instead, perceive their pasts selectively, reinterpret events, and do not simply react to factors.

In this regard, the effects of life accumulate. The past, for example, is not simply a moment that precedes the present, as is the case in typical causal analyses, and merely a distant influence. Rather, because persons engage their lives, the past is carried forward through memory and deeds. Salient factors are, thus, selected to be part of a community's collective present and should be understood to influence their current behavior (Berkman and Kawachi 2000). This biography, accordingly, should be the cornerstone of any predictions about future behavior, rather than a vague reference to the past that may supply some context for these actions. In this sense, a person's or community's life is a selective construction and represents a cumulative process.

On the other hand, persons are envisioned to exist in an environment (Krieger 2001). As a direct challenge to dualism, a web of influences is presumed to be operating. Persons exist, for example, in a family, school system, and workplace. These factors, furthermore, interact with their inhabitants along with one another. Traditional causal imagery is thought to be too simplistic to capture this condition, since a myriad of interactions are occurring at any time at different levels. Furthermore, proximal and distal factors, for example, are not necessarily objective determinations—based on spatial or temporal location—but reflect how persons and communities organize their biographies.

This ecology, however, is not necessarily a system. This metaphor often conveys the idea that the components of a community are well integrated and stable. Causal connections can, thus, be imagined easily to be operative, since clear lines of influence are presumed to exist. What is missing from this portrayal is the dynamism suggested by the ecological metaphor. An environment may exist, but this context is not as rigidly organized and stable as a system.

Multiple descriptions and parallel interventions are required to address adequately any problems (Bronfenbrenner 1994). Any assessments and correctives must be focused, and sufficiently comprehensive, but textured and situationally sensitive. A person-in-environment strategy is vital at this juncture of inaugurating an intervention. The so-called target of these efforts is simply broader and more variegated than is presumed to be possible in traditional epidemiological investigations. An anti-drug intervention, for example, may be directed to various phases of a person's life, in addition to dealing with several factors in the present that are encouraging addiction. But as should be appreciated, the image of a target even downplays the complexity of social problems and their biographies.

This attempt to add breadth to epidemiological analysis has been both welcome and productive. Clearly, better analyses and effective interventions can be undertaken. For example, the introduction of a sociological dimension has had an effect on explaining both health disparities between ethnic groups and the promotion of well-being that has been illuminating (Barry 2005). The importance of personal and community history, among both academic and practitioners, is recognized nowadays with little fanfare. On many levels—mind–body and individual–society—holism is understood to produce better information and clinical practice.

Variables related to family life and the workplace are included in most explanations of disease on-set. Recognizing the importance of situational factors such as these seems to make sense to almost everyone. Nonetheless, the image is often conveyed that ecological models simply encourage the introduction of an ever increasing number of variables, in order to provide a comprehensive picture of a community. This increase is thought, in many cases, to lead to holism, thereby improving the quality of explanations. The question becomes, however, how are these variables conceptualized?

The obvious aim of this ecological holism, as indicated by Kelly (2006) and others, is to become attuned to social and cultural considerations, and perhaps gain some insight into their interaction. The problem is that ecology has not necessarily abandoned empiricism. As a result, process is mistaken for biography. Ecological models, in this sense, are comprehensive but deal with variables as if these factors represent the empirical features of a community. Standard variable analysis, simply put, is often merely expanded in these models.

Another consideration is that ecological models convey a sense of naturalism (Rotabi 2007). That is, like the physical environment, the social world appears to be integrated with all parts naturally related. The connections between elements appear to be almost "biotic" (Mattelart and Mattelart 1998, p. 21). The problem with this analogy is that social life is de-animated, or transformed into a myriad of objects that are connected by inviolable laws. A holism is present that ignores the original intent to treat humans in a more intimate way than in the past.

One example of this issue is the "fundamental cause" thesis proposed by Link and Phelan (1995). The original idea is to make a break from focusing primarily on biological determinants of health and illness. What they propose, instead, is that fundamental social issues, such as poverty, discrimination, and stressful life events, seem to be related constantly to health disparities. Such a finding is quite radical within a context dominated by biomedicine. Nonetheless, how these factors might be evaluated by a community is not given much attention, although Link and Phelan (1995) call for the use of an interpretive framework to improve epidemiological research. Identifying a foundational or deep structure in this manner can easily suggest that interpretation is irrelevant with regard to specifying the causes of behavior.

But as noted earlier in this and other chapters, biography is more than a process and, in fact, provides insight into another dimension of social existence. Instead of revealing merely a wider range of variable interaction, the focus of biography is construction and interpretation. What facts mean, or how they are interpreted and evaluated in everyday discourse, is the focus of biography, rather than the impact of an array of variables, even broadly understood. These meanings have a lot to do with how persons identify problems, respond to conditions, and seek remedies.

Community-Based Epidemiology

Because a community is not simply a place or a collection of empirical traits, but a collectively constituted reality, a new approach is needed to epidemiology. Neither processes nor social indicators are appropriate sources of information (Wallerstein et al. 2011). Everyday life in a community is much more complex than is revealed by typical epidemiological data, even when these variables are placed in an ecological context.

Due to the fact that communities are constructed or existential, biography becomes important; the tales these persons tell about themselves hold the key to understanding their constructed reality. Nonetheless, traditional empirical data should not be dismissed completely (U'Ren 2011). Knowing how many persons have been vaccinated in a community may be helpful to determine when or where an outbreak of a disease might be expected. Likewise, education level might provide some insight into the knowledge base persons have about a particular disease. At a general level, such empirical data are often useful with respect to gaining the attention of planners or government officials. Clearly economic deprivation and illness are related (Williams and Sternthal 2010)! But in terms of understanding the course of a disease, or how persons will react to health issues, a lot if vital information is missing.

Another important consideration at this juncture is that such empirical data are meaningful only within the very limited framework supplied by certain theories or interests. Outside of a conceptual environment, this information has little meaning or relevance. These empirical data should not be allowed to conceal the story told by a community about disease. Vaccinations provide a signal about disease on-set, for example, only when accompanied by a particular theoretical or conceptual context about how diseases spread. For this reason, community-based planners search for the relevant framework, and often competing frameworks that serve to identify pertinent information and problems. In this way, the proper meaning of disease can be obtained.

Because of the influence of participation, a community is pervaded by definitions, expectations, and perspectives. A disease does not spread through natural channels or networks—in a mechanistic manner—but is perceived and assessed before any problem is thought to exist. A disease, according to Aday and Anderson (1974), is mediated by a host of social considerations before any problems are identified. A disease does not simply arise as a response to environmental conditions, but is embedded in certain values and beliefs. When asked about their health, persons do not think in terms of proximal and distal causes of problems (Shy 1997). What they do, instead, is define health and illness in terms of how they organize their lives. How they perceive their situation, for example, has a lot to do with how they identify their health status.

For this reason, a community-based epidemiology does not involve merely a surface examination of a community, since definitions and commitments, for example, are not empirical and simply recorded. Gaining insight into a biography

requires more than periodic consultations with a community. Hence, the thrust of a community-based epidemiology is not to simply chart changes in behavior, but to determine the meaning of these actions. In epidemiological circles, the term "embodiment" is used to describe the relationship between a problem and a community's biography (Krieger 2011). How has the operative reasoning in a community, in other words, been constructed and enforced? Descriptions of the empirical features of a community will not provide any insight into this issue. For this reason Gareth Morgan (2005) declares that a community-based approach is guided by "perceptions, values, and belief systems."

In this sense, rather than merely described, community members provide access to how they construct their understanding of disease or cure. Although this point is explored further in the next chapter, an issue related to community-based methodology is important at this juncture. That is, intense collaboration is necessary between planners and a community, if the biographies of these persons are going to be adequately appreciated (Brown 1993). When persons are studied objectively the image is suggested that they are poked and probed in order to elicit responses. But this undertaking is successful only if these investigations are disinterested or free of values or passion.

Engaging a community is not a value-free endeavor but requires dialogue and commitment. In this regard, those who construct a reality will not necessarily share this knowledge with anyone, given the intimate nature of this exchange. A special sort of relationship is crucial to gaining access to this privileged information. After all, the biography of a person or group is a precious story that is often guarded.

Empirical data on health status, for example, are quite superficial when divorced from past experiences, perceived capabilities, and future expectations (Shehadeh 2010). Likewise, the likelihood of pursuing treatment is not merely a matter of having information on hand about disease on-set or progression, or even knowledge about sufficient resources, but relates to how health and illness are perceived and evaluated. Richard Zaner (1988) declares that health is one of the most existential issues that persons confront.

How social factors—such as resources, accessibility, and seriousness of a problem—are valued and prioritized contribute a lot to whether treatment will be sought (Andersen et.al. 2003). Placing variables in an algorithm, on the other hand, distorts how persons make decisions about their health. Rather than trying to optimize the rationality of their decisions, they base their actions on expectations that relate to collective memories, past experiences, and the perceived chances of success (Simon 1955). Direct involvement in a community, accordingly, helps to insure that epidemiological assessments are informed by the concepts and judgments used by persons to arrange their everyday affairs, including their health status. How persons make decisions about their health are brought alive in a manner that extends beyond probability.

The general point of community-based epidemiology is that health status has little meaning divorced from the biography of a community (Little 1998). Nonetheless, biography extends beyond holism. For example, the identification and spread of a disease does not represent a natural progression or a causal connection between

events, but includes definitions, value judgments, and a willingness to act. From a community-based perspective, how the on-set of a disease is likely to occur includes these and other existential considerations.

This personal or collective mediation is what community-based planners have in mind when they claim that a disease does not necessarily follow a well-trodden path. Here again, realist imagery is deceiving. Nonetheless, many persons tend to think of a path as a fairly routine and an unencumbered mode of transmission. But barriers to health, such as a lack of resources or transportation, are not necessarily natural or obvious but reflect judgments about seriousness, probable impact, and the choice of remedies at hand. How persons might respond to a health threat, stated simply, is not revealed by reviewing social or environmental indicators, even in a holistic manner.

The course of a disease, accordingly, is anything but routine. Planners should not be lulled into thinking that health care will be improved if the proper path to treatment is cleared, that is, the typical structural barriers are removed (Snowden and Yamada 2005). This task is not so simple! Even supplying the best resources may not be productive, if a community believes that poverty and the related diseases are merely a part of life and should be endured. And the fact that physicians are often perceived to be condescending and unsympathetic, and consulted as a last resort, cannot be divorced from how reality is constructed in a particular community. How treatment is perceived is important!

Every path to health care, so to speak, is potentially very unique. The job of a community-based planner, therefore, is to extend beyond causation to grasp the process of disease creation. The use of the phrase "disease creation" is intended to convey the idea that a disease does not occur until an issue is defined as problematic, and persons become motivated to deal with this phenomenon. Once these matters are settled, an entire disease context arises that identifies resources, accessibility, threat, and other relevant themes. A disease does not spread simply by diffusion along natural pathways. Such imagery overlooks how a community participates in this process.

A recent response to this omission has been the development of what Phil Brown (1997) and others call "popular epidemiology." The base of this strategy is that average citizens can bring to the attention of planners specific problems that have been overlooked by these experts. These local persons give needed direction to any epidemiological studies, due to their familiarity with the situation. As reported by Brown, this strategy has been helpful in correcting the effects of pollution related to environmental degradation in several cities. Consistent with a community-based philosophy, the idea is that these neighbors can help to guide and motivate properly professional epidemiologists.

But some criticisms have been directed at this approach that calls into question the community-based character of this methodology (Brown 1987). Two issues are particular important. The first relates to the relationship that is often established with experts. Critics claim that professional epidemiologists tend to dominate the investigations. And second, community members do not necessarily define the issues at hand, but merely point the experts in the proper direction. In this sense, biography is not necessarily at the core of popular epidemiology. Nonetheless, this strategy is consistent with the spirit of community-based planning, whereby a proj-

ect is given life and guided by a community. The problem is that guidance has, at times, been sporadic.

Conclusion

The new public health places a community within an ecological framework, while the construction of social issues is the focus of a community-based approach. In the end, two very different approaches to holism are at work. In the first, a broad causal matrix is sought, which is more inclusive than is the case with traditional epidemiology (Kelly 1966). A community-based epidemiology, on the other hand, emphasizes the perceptions of persons and the resulting biographies, rather than increasing the number of variables that are part of an assessment (Cornell 2006).

Basically, both the traditional and new public health are sustained by realism. The traits of a community—such as stressors and buffers—are treated as empirical referents. The need to clearly identify these and other variables is, thus, logical and expected. After all, whether or not a disease spreads depends on a unique composition of these factors. Discovering the proper connections between these elements is thought to be essential to preventing or limiting problems.

A very different picture of epidemiology is painted from a community-based perspective. The idea that some communities lack traits, such as important buffers, and are overwhelmed by stressors misses a lot about disease on-set and spread. Such a portrayal is simply too sterile to capture how a community reacts to perceived threats and constructs viable alternatives. In this regard, popular epidemiology strives to incorporate average persons into the activity of identifying problems and their solutions (Brown 1993). The idea is that community members are knowledgeable about these issues and are motivated to improve their surroundings.

The strengths and weaknesses of a community are not understood to be empirical determinations but rather are biographical. Environmental factors, for example, do not automatically lull persons into inactivity or determine how they will respond to threats. In fact, much of public health is predicated on changing culture and behavior (De Maio 2012). The thrust of community-based epidemiology, in this regard, is that how persons act shapes every aspect of their realities. Promoting change, therefore, has little to do with empirical determinates and more with the ability of persons to imagine and enact an alternative mode of existence.

Buffers, for example, should not be viewed as having natural properties within this new framework (Cwikel 2006). These characteristics, instead, are enmeshed within the reality of a community, possibly even a clash of realities. A buffer becomes effective due to various beliefs and the ability to act. Before an intervention can be planned successfully, these experiential mediators that pervade the spread of a disease must receive serious consideration. What constitutes a true and effective buffer can, thus, be appreciated.

Acknowledging these diverse knowledge bases is at the heart of a community-based epidemiology. But the question becomes: How are these sources of knowledge discovered and interpreted correctly? After all, the quality of a so-called buffer

depends on interpretation. The biography of a community, in other words, must be read accurately, or interventions will likely be misdirected. What must be remembered is that relevant information may be revealed in these biographies that is inconsistent with mainstream thinking. How planners read and judge the reasoning in these stories is very important. Inconsistency with traditional beliefs should not discredit automatically the narrative provided by a community.

Dismissing any findings as irrational *a priori* would be a serious misstep, at least from a community-based perspective. The reasoning exhibited may be unusual, or different from what is expected, but never lacks rationality or purpose. This unique form of "mundane reasoning," instead, has local relevance and informs the behavior of the community members, including their health status (Pollner 1987). This mode of reason is the appropriate base for policies and practices that are relevant to a community.

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