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# Community Resilience: Models, Metaphors and Measures

Laurence J. Kirmayer, MD, FRCPC, Professor and Director, Division of Social and Transcultural Psychiatry, Department of Psychiatry, McGill University and Director, Culture & Mental Health Research Unit, Department of Psychiatry, Jewish General Hospital

Megha Sehdev, Johns Hopkins University

Rob Whitley, PhD, Culture & Mental Health Research Unit, Institute of Community & Family Psychiatry, Jewish General Hospital and Dartmouth Psychiatric Research Center

Stéphane F. Dandeneau, PhD, Culture & Mental Health Research Unit, Institute of Community & Family Psychiatry, Jewish General Hospital

Colette Isaac, Program Coordinator, National Network for Aboriginal Mental Health Research, Culture & Mental Health Research Unit, Jewish General Hospital

## ABSTRACT

In this paper, we discuss the importance of community resilience for Aboriginal health and well-being. The concept of resilience has been used in developmental psychology and psychiatry to describe individuals' capacities to achieve well-being and thrive despite significant adversity. Resilience is also a useful concept in ecology where it draws attention to the ability of ecosystems to adapt to environmental stress through transformation. The study of community resilience builds on these concepts, to understand positive responses to adversity at the level of families, communities and larger social systems. Despite historical and ongoing conditions of adversity and hardship many Aboriginal cultures and communities have survived and done well. In this review, we critically assess the various definitions of resilience as applied to individuals. We then examine resilience as applied to families, communities and larger social systems. We examine links between the concept of resilience and social capital. We then consider interventions that can promote resilience and well-being in Aboriginal communities. These include strengthening social capital, networks and support; revitalization of language, enhancing cultural identity and spirituality; supporting families and parents to insure healthy child development; enhancing local control and collective efficacy; building infrastructure (material, human and informational); increasing economic opportunity and diversification; and respecting human diversity. We also discuss methods of measuring community resilience, examining advantages and disadvantages to each method. Community resilience is a concept that resonates with Aboriginal perspectives because it focuses on collective strengths from an ecological or systemic perspective.

## KEYWORDS

Community resilience, social capital, system dynamics, mental health promotion







agents interact may exhibit resilience. At this abstract level, resilience is “the capacity of a system to absorb disturbance and re-organize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks” (Walker et al., 2002). Although different types of systems have different structures and processes, there are some general features of the dynamics of systems that are relevant to understanding resilience (Odum, 1994; Holling, 2001). To the extent that ecosystems, physiological systems and individuals share similar systems dynamics, ideas from ecology or biology may be used to understand psychological or sociological processes.

Fleming and Ledogar (2008a) discuss current definitions of resilience applied to Aboriginal research. A common definition is “adaptation despite high risk.” Other definitions include “good development despite high risk,” “competence under stress,” “recovery from trauma,” and “normal development under difficult conditions” (p. 8). Definitions of resilience require an element of adversity. For instance, some authors define resilience as “successful adaptation” in the face of “high risk,” “stressful experiences,” or “trauma” (Masten, 2001). Resilience often results in positive outcomes that are “beyond predicted expectations” (Richman & Fraser, 2001).

There are several important limitations to the resilience metaphor as it tends to be applied to Aboriginal peoples and communities. Resilience is seen as a process of returning to a previous state (“springing back”) rather than transforming into something new, as is more commonly the case. In psychology and psychiatry, talk about resilience tends to focus on internal characteristics of the individual rather than interactions with others and with the environment. Resilience is not a single entity or “essence” of the person but a name for the outcome of many processes. Many discussions of resilience look at specific traumas or catastrophic events rather than the persistent adversities that result from structural violence, racism and discrimination. Finally, and most importantly, in its emphasis on describing positive characteristics, the resilience metaphor tends to obscure the many tradeoffs that inevitably occur between risk and protective factors that are actually part of the same interacting system. All of these biases can be traced to a more general lack of attention to the social and cultural contexts that define adversity, positive outcomes, and adaptive strategies that contribute to resilience. Aboriginal values and perspectives emphasizing interconnectedness, integration and wholeness can provide an important counterbalance to the ways of thinking about resilience as discrete factors that tend to dominate current scientific writing.

### 1.2.2 Community

“Community” has many meanings and can refer to groups of people linked by common identity, geography, commitment, interest, or concern (Jewkes & Murcott, 1996). In an effort to clarify the concept of community, Christensen and Robertson (1980) suggest that a community consists of people, living within a geographically bounded area, involved in ongoing social interaction, and with psychological ties with each other and to the place they live. Although this definition fits the situation of rural and remote Aboriginal communities, it does not capture all of the meanings of community for Aboriginal peoples. The emphasis on bonds with others and with place is central to indigenous notions of identity and community. However, many Aboriginal communities arrived at their current form through processes of sedentarization, displacement or forced relocation, which continue to exert profound effects on community identity and dynamics. Some communities were established quite recently, and are built out of much older, smaller scale networks of families, clans or other groups. Other communities are derived from large-scale complex societies but, in the wake of colonization, have had to adopt new forms of governance, hierarchies and social structures. In most cases, current communities bear the traces of these earlier forms of communal life and this history adds layers of complexity to community resilience.

The importance of community reflects the fact that human beings are fundamentally social and usually live in closely knit groups. In the contemporary world, the idea of community also speaks to the feelings of isolation and lack of connectedness that many feel as a consequence of the shrinking of the extended family and atomization of society into individuals (Bauman, 2001). Some social scientists have critiqued the term “community” because it is often ideologically loaded and “tends to imply unverified assumptions about how people in small face to face groups are supposed to interact” (Tanner, 2008, p. 250).

There are enormous differences among Aboriginal groups depending on their original forms of social organization and ways of life, their historical relationship to colonizing powers, their geographical location, as well as their ongoing efforts to sustain and rebuild communities in the light of political challenges and new technologies. For example, Inuit “community” was originally based on the extended family unit, whereas some other Aboriginal groups lived in larger communities. The community as an historical entity therefore cannot be assumed to mean the same thing for every Aboriginal group. Indeed, the meaning of community has changed over time with changes in







Barton (2005) identifies several problems at the conceptual core of “resilience” theories. First, he argues that “resilience” is a culture-bound concept grounded in Euro-American and neoliberal discourses of choice, agency and flexibility. To go beyond this culturally bound or biased view, he encourages researchers to explore resilience in both general models and local cultural perspectives. Secondly, Barton points out that most definitions of resilience focus on it as a response to adversity. Yet resilience may also be shown in situations where hardship and vulnerability are not as apparent. Everyday challenges may also call for some of the same qualities of resilience that are seen in more difficult situations. Barton advocates a phenomenological approach to resilience that takes into account individual agency, situational context and processes of improvisation in everyday life.

On analogy to its use in ecology, resilience can be found at the level of families, groups, communities, and larger social systems. If many individuals in a community exhibit individual resilience, this can contribute to making the whole community resilient, since they work together more easily to respond to stresses and challenges. The link may also work the other way: a community that has resilient characteristics may increase the resilience of its individual members. This may occur in part because the community environment is conducive to healthy early child development but also because individuals can draw from community resources across their lifespan to meet new challenges. However, the interaction between individual and community resilience may not be so simple or exclusively positive. It is possible that certain aspects of resilience at the individual or community level may be in conflict with each other, involving tradeoffs of one aspect against the other. What is good for certain individuals is not always good for the community and vice versa. To consider this more complex possibility of trade-offs, we need to understand resilience at multiple levels. Before addressing community resilience, therefore, it is useful to consider the concept of resilience at the level of the individual.

## 2.1 Defining Resilience

In psychology and psychiatry, the concept of resilience emerged from clinical observations and research that recognized that many children do well despite very difficult childhood experiences (Luthar, 2006). In particular, some children whose parents have severe mental health problems nonetheless grow up to be well-functioning adults (Rutter, 1985, 2001). From this perspective, resilience is recognized as a positive outcome despite childhood adversity. Similarly, resilience was used to describe the success of children

living in harsh urban environments, exposed to poverty and violence, who nonetheless do well in school and grow up to be well-functioning adults (Garmezy, 1991). In adulthood, the resilient person is someone who lives a successful life as defined by such factors as steady employment, a stable marriage and overall well-being in spite of having been exposed to high levels of emotional, mental or physical distress (Lafrance, Bodor & Bastien, 2008). A large body of research has identified genetic and environmental factors that interact to confer resilience on the individual (Kim-Cohen et al., 2004).

In this view, resilience is an individual characteristic that is indicated by the person’s successful functioning; success is measured in terms of the achievement of specific social norms and roles (e.g. stable employment, relationships). The positive outcomes that provide evidence of resilience may be experiential or behavioural. Bonanno (2005), for example, defines resilience as an ongoing “capacity for positive emotions and generative experiences” during or following hardship (p. 136). Well-being, absence of depression or other symptom indicators may be taken as measures of individual resilience if the individual has a history of adversities that would usually lead to poor mental health. Behaviourally, resilience may be indicated by good performance in relationships, school, work, or other social roles. This makes it clear that social roles, norms and expectations are intrinsic to any definition and recognition of resilience. The strong normative aspect of resilience means it can only be defined in terms of specific cultural values and frameworks, and thus, may vary in different cultural contexts.

Even within developmental psychology, resilience has been operationalized and measured in diverse ways (Luthar & Brown, 2007). In many cases, resilience is defined simply as a positive health outcome in situations where an individual is exposed to risk, challenge or adversity. This raises the problem of how to separate resilience as a characteristic of the individual that explains past outcomes and predicts future responses from the outcome it is supposed to explain.

Disentangling resilience from positive outcomes is difficult. Strictly speaking, being resilient is not the same as simply doing well — a positive outcome depends on many other circumstances beyond the individual’s control. Faced with adversity, many individuals may show some negative effects. Resilience then would be shown by being “competent” or having normal capabilities despite exposure to severe or persistent adversities. Competence is defined in terms of the social demands and requirements at each stage of life and its meaning varies across the lifespan (Masten & Powell, 2003).





example, a study of adults affected by severe trauma found that resilient individuals could enhance or suppress emotional expression according to context. These individuals “minimize the impact of loss while increasing continued contact with, and support from important people in the social environment” (Bonanno, 2005, p. 137). Those with “self-enhancing biases” were socially awkward but nevertheless effective managers of stress. Based on these results, Bonanno suggests that there are different types of resilience both in terms of pathways and outcomes; individuals may apply specific abilities to achieve different desired outcomes.

Similarly, Polk (1997) described four patterns or strategies of individual resilience: (i) the *dispositional pattern* is characterized by features of self-worth, sense of mastery and self-efficacy, as well as constitutional features such as intelligence, health, appearance, and temperament; (ii) the *relational pattern* reflects the person’s ability to seek comfort, support or inspiration from others; (iii) the *situational pattern* involves approaching circumstances using appropriate cognitive skills and problem solving abilities; finally, (iv) the *philosophical pattern* emphasizes the role of personal beliefs, the construction of meaning and self-knowledge in enhancing life experience. Polk believes that health professionals can shift people’s adaptive patterns by nurturing their inherent strengths and resources. Other researchers agree that resilience is a matter of individual adaptation, which though reflecting constitutional traits, can also be taught and learned (Bonanno, 2005).

### 2.3 Resilience as a Process

Resilience is a dynamic process that may vary from one social context to the next and from one worldview or value system to another. Resilience is not one thing or process. Different metaphors and models highlight aspects that may be relevant to individuals or communities in different settings or times. However, at a more general level, resilience reflects processes that draw from multiple sources of strength and resources to allow people to face, live with, manage, and overcome challenges.

Masten (2001) and others have argued that personality traits must be distinguished from more complex patterns of resilience. She suggests the contribution of personality traits be termed as “resiliency” while the dynamic process of competence can be described as “resilience” (Masten, 2001, p. 554). As Waller (2001) argues, the idea of static resilience is at odds with the human condition, since no one is resilient or non-resilient all of the time. Resilience, therefore, is better described as a process occurring through time, over a developmental trajectory, and in constant interaction with adversity and with changing life circumstances.

Luthar and Cicchetti (2000) note that recent research focuses on dimensions of risk and protective factors “that might *modify* the negative effects of adverse life circumstances and, having accomplished this, [identify] the *mechanisms* or *processes* that might underlie associations found” (Luthar & Cicchetti, 2000, p. 858). Burack and colleagues (2007) also discuss resilience as a process involving interacting protective and compensatory factors in an individual’s life. For example, supportive parents, employment and education might increase an individual’s level of protection, while the absence of such factors contributes to risk. A major challenge in this work is to describe the effect of these variables throughout developmental stages. Risk or protection at one stage, for instance adolescence, might affect a person immediately, or only later in life. In addition, ways of overcoming risks and drawing from protective factors used at one stage may not be adaptive or appropriate at a later stage. The significance of specific competences, challenges and relationships changes over the life cycle.

Resilience is not a simple linear causal process in which an abundance of strength leads directly to a good developmental outcome; instead, resilience involves interactions among multiple processes or strategies giving rise to alternate trajectories of development. These trajectories may be unstable, requiring constant input to maintain, or they may be self-sustaining. Resilience often involves tradeoffs, in which something is gained and something lost. Clearly, this makes it important to monitor the effects of any intervention carefully, measuring multiple outcomes to insure that desired effects in one area of a person’s life are not being achieved at the cost of another equally important concern.

### 2.4 Vulnerability, Risk and Resilience

Luthar and Cicchetti (2000) have distinguished between “risk,” “vulnerability” and “protection.” They use “risk” to refer to the broadest level of adverse life circumstance shared among a collective such as a community or neighbourhood, for example urban poverty. “Vulnerability” factors are specific adversities that exacerbate the effects of risk. Conversely, “protective” factors mitigate risk and bolster resilience. Vulnerability and protective factors can be found at individual, family and community levels.

Vulnerabilities of the individual could include poor impulse-control, or learning difficulties. Protective factors could involve a sense of self-efficacy or optimism. Vulnerability at the family level could involve harsh parenting or divorce, while protective factors could include















vary by community and are affected by many other social factors. In Aboriginal communities, extended families, clans and other traditional forms of linkage through mobility, trade and other activities all contribute to social networks.

Networks can provide material, economic, informational resources, assist with problem solving, and provide emotional and other forms of support in everyday life and in times of special need. Individuals are embedded in networks and these webs of relatedness, in turn, provide each person with social roles and statuses as well as common purpose and direction to their life. Giving to others through these networks may be just as important as being able to receive. Indeed, those who give to others are much more likely to receive in turn (Plickert, Côté, & Wellman, 2007).

Emerging research suggests the importance of the internet as a form of networking in some Aboriginal communities (Smith & Ward, 2000; Dyson, Hendriks & Grant, 2007). The role and impact of the internet as a contributor to social networks is an under-researched area. However, initial work suggests it can support existing networks and create new networks which provide people with some sense of identity and resilience.

There is a large literature documenting the profound mental and physical health impacts of social support and social networks (Berkman, 2000; Berkman & Kawachi, 2000). Much research suggests that social support and social networks can buffer the impact of crises, illness, trauma, loss, and other challenging life events, thereby protecting mental health during vulnerable times (Brown & Harris, 1978). Other research suggests that social support and social networks confer direct benefits in terms of better mental health and well-being. Social networks and social support also have a significant impact on physical health. Social support has beneficial effects on the cardiovascular, endocrine and immune systems (Uchino, Cacioppo & Kiecolt-Glaser, 1996). Conversely, loss of social support, through bereavement or social marginalization can have strong negative effects on the same bodily systems.

In a study with data from the 2001 Aboriginal Peoples' Survey Canada, social support was strongly associated with health (Richmond, Ross & Egeland, 2007). Four types of social support were examined: positive interactions, emotional support, tangible support, and affection and intimacy. For women, both emotional support and instrumental support were associated with better health, while for men only emotional support conferred this benefit. Social support is also one of the strongest predictors of positive outcome after exposure to violence or other forms of trauma (Charuvastra & Cloitre, 2008).

Of course, the same networks that provide social support may also stress the individual. The response of others to a

trauma can make it worse. For example, being rejected by others after experiencing rape can greatly intensify the impact of the rape (Andrews, Brewin & Rose, 2003; Hammack et al., 2004). So it is not only the density or richness of the social network but the types of relationships and emotional exchanges that determine the health outcomes.

Social support may also be associated with pressures, including demands for conformity and burdens of care or responsibility for others; these demands may be more intense in collectivist cultures that emphasize the value of the group over that of the individual (Kim, Sherman & Taylor, 2008). In such cultures, asking for help from others may be perceived as being burdensome and have negative effects on relationships. This may lead some individuals to restrain themselves in seeking help.

The types of social support available and their implications for the individual may vary by age, gender, social class, disability, and larger social structural issues, as well as by the individual's personality and specific health problem. For example, some communities may be rich in social support for older people, due to a high population density and an abiding respect for Elders throughout the community. This may be the situation for many Aboriginal communities. Other communities may see Elders as a burden, with older people being abandoned to their own devices. This situation is commonly seen in European and North American urban communities, which tend to valorize youth over age.

Theoretically, communities with strong social networks and social support should be marked by a high level of community resilience. However, making this inference requires a leap of faith, given that there has been little empirical work exploring the association between extent of individual level social support and community level resilience. In a landmark paper on "the strength of weak ties," Granovetter (1973) argued that extensive externally-focused weak ties are more important in terms of obtaining work, financial success and societal influence than intense and deep internally-focused strong ties. This builds on the work of Bourdieu (1986) who posited the importance of individual-level connections as determinants of economic success and well-being. The implication is that while interventions that enhance intra-community social cohesion may be helpful in increasing in-group social support and social networks, this should be accompanied by interventions that enhance linkages for individuals *outside* the community, as this allows for communal empowerment and influence on wider society.









### 3.4 Social Capital in Aboriginal Contexts

The vast majority of the research literature on social capital and health has focused on general population samples from the U.S., Canada, Australia, or Europe. Likewise social capital theorists have generally eschewed a detailed discussion of factors such as culture, race and ethnicity; instead taking a broad-brush approach to their conceptualization of social capital. Fortunately, a handful of scholars have recently taken the social capital concept and attempted to assess its utility in the Aboriginal context.

Mignone and O'Neil (2005a, 2005b) pioneered this approach in Manitoba. They worked with three communities in Manitoba, conducting in-depth qualitative research to identify dimensions of social capital to measure, and then used this list to create a questionnaire. The researchers eventually created a 99-item questionnaire and a 55-item short version to measure social capital in an Aboriginal context. Mignone suggests that this tool can be used to assess the strengths and weaknesses of a community, guiding and prioritizing subsequent policies. Their work led them to create the first framework of social capital that was grounded in the experience of First Nations people. This was done through a "concept analysis" of the qualitative data. This analysis led to an emerging framework dividing social capital into three dimensions useful for the First Nations context: (i) bonding; (ii) bridging; and (iii) linking (this last category is similar to "vertical social capital" discussed above). Mignone and O'Neil conclude that social capital in a First Nation community is based on the degree to which (2005a, p. 27):

- the communities resources are socially invested;
- there is a climate of trust, norms of reciprocity, collective action, and participation;
- the community possesses flexible and diverse networks that are include all members of the community.

Mignone and O'Neil (2005a, 2005b) have described plausible linkages between the components of social capital identified above and community level health, especially youth suicide. They argue that a community where more resources are "socially invested" will confer community-level protection against suicide risk factors such as hopelessness, lack of meaning to life, instability, and lack of control. Social capital and socially invested resources will manifest itself in stronger and self-confident communities with strong social networks and community pride.

The work of Mignone and colleagues is important for various reasons. It documents community-level characteristics that could be indicative of higher or lower

levels of social capital in Aboriginal contexts. These include conventional measures of social capital, for example trust and reciprocity. They also include characteristics more specific to Aboriginal communities. These include language revitalization programs and collective ceremonial or spiritual practices (for example sweatlodges or powwows). Their work takes the appropriate first steps to understand the cultural appropriateness of social capital in the Aboriginal context. The authors have created a culturally grounded framework based on in-depth qualitative methods. They have made plausible theoretical links between this framework and health, simultaneously creating an instrument to measure community level social capital grounded in empirical research. Their work suggests that the concept of social capital may be a very useful proxy for the measurement of community resilience among First Nations. Indeed, this position is taken by Ledogar and Fleming (2008), who argue that collective efficacy and social cohesion are key aspects of social capital particularly relevant to community resilience in Aboriginal contexts. Collective efficacy is important because Aboriginal communities have traditionally faced exploitation, racism and colonialism. Defending communities against these forces can be considered an important component of social capital and community resilience. New assaults on Aboriginal communities have come from global enterprises wishing to make money from Aboriginal communities. As such, bridging and vertical social capital is considered protective in that it can assist resistance to these external threats.

### 3.5 Summary

Community resilience has been discussed largely in terms of social capital and related constructs. Despite the diversity of approaches to the definition and measurement of social capital, there are a number of common themes and trends. First, most theorists agree that social capital is based on four main factors: networks, relationships, norms, and trust. Secondly, while some argue that social capital can be defined and measured as a property of an individual, others recognize it as a property of a social system or ecological unit such as a community. This social-ecological approach is found in the small body of work that examines social capital among First Nations (King, Smith & Gracey, 2009; Waldram, Herring & Young, 2006). Finally, a number of distinctions among types or dimensions of social capital have been made (e.g. cognitive, structural, bridging, bonding, horizontal, vertical) to fit the different contexts and social realities of communities.

Unpacking the notion of social capital can help with devising models and measures that can address the







community responsibility for children; emphasis on language as a source of renewed culture; knowledge of history and tradition as a key element of identity; development of traditional skills; emphasis on the importance of kinship and connection with one another; and spirituality and respect for nature. The authors identify similar emphases in modern resilience theory focusing on the child. According to resilience theory, protective factors for children include: one person who values and respects the child; contribution to the community; development of spirituality and identity; development of a talent or skill; and contribution to one's community. Resilience theory thus provides a way to "reconcile" important aspects of Aboriginal and western knowledge and values. However, despite their awareness of Aboriginal contexts, Lafrance and colleagues seem to define resilience quite narrowly in terms borrowed from Rutter (2001); truly engaging Aboriginal perspectives may require a shift in values and priorities of conventional models of resilience with corresponding community-oriented interventions.

There are important convergences between current thinking about community resilience and Aboriginal concepts of health and well-being. Aboriginal worldviews emphasize the interconnectedness of all beings with their environments. Indeed, human beings and the environment form one large interacting system. This systemic view that approaches each element or aspect of experience as related, so that changes are not simply additive but interact in nonlinear ways: a small change may have very large effects over time as it is amplified by the response of other parts of the system. Human agency is only one element in this dynamic system. In traditional systems of knowledge other forms of non-human persons and non-human agency are recognized. Thus, human beings have practical and moral obligations to maintain good relations with all aspects of their social, physical and spiritual environment.

There are parallels between indigenous notions of the person and ecological perspectives in developmental psychology and resilience theory. Aboriginal concepts of the person have been described as sociocentric, communalistic or relational, emphasizing the interconnectedness and interdependence of individuals within the family and community (van Uchelen, 2000). This relational self is balanced by a strong recognition of individual autonomy of thought, feeling and experience. In addition to this relational orientation, many Aboriginal cultures foster a sort of ecocentric self, in which the person is seen as strongly connected to the environment, the animals, plants, and forces of nature (Stairs & Wenzel, 1992; Kirmayer, Fletcher & Watt, 2008). Finally, many Aboriginal traditions emphasize a spiritual dimension to the self, in which the

person in transaction with a spirit world of ancestors, non-human persons or animal powers that influence human life.

This points toward the possibility of translating between the two knowledge systems or constructing a synthesis of indigenous knowledge and ecological science. The key tenets in this synthesis would include: a) reality is dynamic and constantly changing, as opposed to stable and consistent; b) adaptation is a key process in the relationship between humans and their environments; c) the process of adjustment and balancing draws on resources of the individual, family, community, and the natural and spirit worlds; and, d) resilience rests on the interaction and holistic interconnection of these spheres (Fleming & Ledogar, 2008a, 2008b; LaBoucane-Benson, 2005). An Aboriginal perspective would move resilience away from a simple, linear view of risk exposure, resilience and outcome, toward a more complex, interactional and holistic view. Aboriginal knowledge would add to resilience theory an emphasis on relational, cultural and spiritual dimensions. Culture here includes the role of traditional activities, such as spirituality, healing practices, and language in dealing with change, loss and trauma. Approaching resilience from Aboriginal perspectives can generate new and compelling models of wide relevance and applicability.

## 4.2 Historical Context

Aboriginal resilience must be understood in relation to the specific forms of adversity that Aboriginal individuals and communities have faced. These stem from the history of colonization, the unequal power and exploitative relationships that came with contact with Europeans, and the subsequent state machinery of regulation, control and active suppression of Aboriginal cultural traditions, community and autonomy (Kirmayer, Brass & Tait, 2000; Warry, 1998). Each Aboriginal community may face additional adversities specific to its history.

Duran and colleagues (1998) list six interconnected phases in the disruption of Aboriginal life in the U.S. that have close parallels in Canadian history: (1) first contact; (2) economic competition; (3) invasion and war period; (4) subjugation and reservation period; (5) boarding school period; and (6) forced relocation and termination period. These events have produced drastic transformations in Aboriginal life, involving loss of identity, trust, and connection to land and community (Hill, 2006). Historical losses and suppression of culture along with contemporary forms of marginalization and exclusion, including racism and discrimination, can interact with other vulnerability factors, such as poor parenting or health problems to increase the risk for a specific population or group. Each of these risk











Aboriginal peoples “the land represents more than just the physical or symbolic space in which people carry out their daily activities” (Wilson, 2003, p. 88). The Aboriginal connection to specific places is “fundamentally *interpersonal*” (Gone, 2008, p. 394). A study by Richmond and colleagues (2004) illustrates this idea, quoting a Namgis First Nation participant who stated, “the rivers and mountains and stuff are people in the family” (p. 356). At the same time, the land and the natural world constitute a larger encompassing reality of which the person is but one element (Kirmayer et al., 2008a).

The term ‘Land’ . . . is not restricted to the physical environment only. It has a much broader meaning, used by indigenous people to refer to the physical, biological and spiritual environments fused together. The closest scientific equivalent of the ‘Land’, taken without its spiritual component, is ‘ecosystem’ (Gleb Raygorodetsky in Gwich’in Elders, 1997, p. 14, cited in MacGregor, 2004).

In many Aboriginal worldviews, the environment is seen as constantly in flux, exposing the person to many challenges and disruptions that require constant adjustments (Robards & Alessa, 2004). At the same time, there is an assumption that life makes sense, that there is a higher or ultimate harmony or balance that can be experienced by the individual who attends closely to the natural world, including their experience.

In Canada, Aboriginal people clearly understand that their collective identity, health and well-being are intimately connected to their relationship to the land (Isaac, 2009). Knowing how to survive on the land and being able to maintain oneself and one’s family through economic activities associated with the land provides a path to develop and maintain self-efficacy and self-esteem (Richmond, 2007; Richmond et al., 2004; Wexler, 2006).

An analysis of data from the Cree Health Survey in Quebec found that spending time in hunting camps in the bush was associated with less psychological distress (Kirmayer et al., 2003). Ethnographic work found that community members frequently mentioned the psychological benefits of bush activities, which involve contact with nature, spiritual relations with animals, consumption of valued foods, and participation in traditional activities. Time in the bush was reported to increase family solidarity and social support, cultural identity and physical strength. Of course, the experience of connection to the land may also vary within a community by gender, age, and other individual and social characteristics.

Consumption of “country foods” is associated with feelings of health and well-being among Inuit, Cree and other Aboriginal peoples (Borré, 1991; Kirmayer et al., 2008a; Tanner, 1979, 2004). As well as the association between food, blood and mental well-being, connection to the land itself is viewed as having mental health benefits (Kirmayer et al., 1994; Therrien, 1987). This connection may be experienced and expressed through ceremonial and subsistence activities. A recent study with Aboriginal people in Australia demonstrated the health benefits of “caring for country” activities, including spending time on country, the seasonal burning of grasses, gathering of food and medicinal resources, performing ceremonies, production of artworks, and protecting sacred areas (Burgess et al., 2009).

Aboriginal perspectives on healing recognize this connection between the individual and the natural environment. Hardship and difficult emotions are considered part of life that can be mitigated through careful and considerate interaction with the land. The land provides ways to regain a sense of balance and well-being in difficult moments. In a study of healing in B.C., one participant stated: “[w]e were taught you go down to the river when you are stressed. . . I was taught by the elders that when you are blue and sad to go to the river and let the river draw that sadness out of you” (Strickland et al., 2006, p. 9). This very personal way of relating to place is also found in Wilson’s (2003) in-depth interviews with First Nations participants: “I talk to the trees and they listen. They take my problems away” (p. 90), and in the words of an Inuit elder discussing resilience: “[i]f you are at home being depressed and unhappy there is a place you could go – outside; that is the best place to take away bad things from your mind” (NAHO, 2006, p. 19).

For some urban Aboriginal people, many of these activities are now framed as “leisure” but their meaning goes well beyond that of other forms of recreation. Iwasaki and Bartlett (2006) describe how some Aboriginal individuals in Western Canada proactively cope with stress through culturally meaningful leisure activities. In Aboriginal cultures, leisure activities are located in a worldview that includes belief in the sacredness of all things, and reciprocal and interdependent relationships between human society and nature. Dance, music, sport, art, religion, and spiritual practices all emphasize engagement in a cyclical and ongoing pattern of life. Participants in the study noted many stressors related to health issues and social structural problems, such as lack of housing, poverty, discrimination, and political conflicts. Yet activities such as visiting the reserve, going out on the land camping or simply walking about, significantly relieved stress levels. Iwasaki and





### 4.3.5 Spirituality and Ceremony

Spirituality has received increasing attention in the resilience literature. Aboriginal spirituality emphasizes several elements, including: interconnectedness with others; a sense of the sacred; efforts to renew oneself; balance and harmony; and desire for lifelong learning. In Aboriginal societies, spirituality is an important aspect of cultural strength.

Aboriginal spirituality may protect against alcohol use, the impact of discrimination, and suicide (Fleming & Ledogar, 2008a). A study in two Northern Plains American Indian communities found that strong cultural spiritual orientations (as indicated by endorsing statements on a question such as “there is balance and order in the universe,” “I am in harmony with all living things”) was associated with lower risk of suicidal behaviour than others to make suicide attempts (Garoutte et al., 2003). This benefit of spirituality persisted when age, gender, education, heavy alcohol use, substance abuse, and psychological distress were statistically controlled. A study in an Inuit community in Nunavik also found that frequent attendance at church was associated with lower suicide risk among youth (Kirmayer et al., 2003).

Spirituality may serve as a strong buffer against depression (Perez, 2008). In circumstances of high stress, such as the loss of loved one, serious illness, homelessness, or severe psychiatric illness, spirituality has been shown to significantly mitigate depressive symptoms. This may be because participation in a religious congregation or community provides social support. Religiosity and spirituality also tend to increase hope, positive affect, meaning making, and coping mechanisms while reducing negative feelings (Boehnlein, 2007). Individuals who report higher levels of religious or spiritual belief and practice are less likely to engage in risky health behaviours and generally engage in stable and positive health practices. The positive relationship between religiosity and physical health, and mental health holds even when controlling for variables such as gender, ethnicity, income, or education (Koenig, 2009).

Of course spirituality and religious identity may also be sources of conflict within families and communities. Different forms of spirituality and religious practice are available in most Aboriginal communities and individuals within the same family may have different levels of engagement or even follow different paths (Adelson, 2008; Tanner, 2008). Some traditions are critical of other paths, while some are more tolerant. Given the diversity in some communities, explicit values of tolerance and respect for individuals and for other groups may be important to promote a sense of solidarity and belonging despite differences.

Ceremonial activities such as the sweatlodge can be highly effective in forging a sense of connection to others in the community. Participants in a sweatlodge reported higher levels of self-discipline, self-actualization, caring for others, and sense of creativity after a ceremony (Schiff & Moore, 2006). Practices like the sweatlodge reinforce collective identity while providing participants with a rich, emotionally charged metaphoric language for transforming experience. For example, at one Southern Plains treatment centre, people with addictions attend a sweatlodge ceremony in which they visualize heat, rocks, wood, fire, and offerings as elements of cleansing and restructuring their lives (Bigfoot & Dunlap, 2006). Other ceremonial activities can also contribute to an embodied sense of identity and healing (Dion Stout & Kipling, 2003).

### 4.3.6 Cultural Knowledge and Identity

A prominent theme in studies of community protective factors is the importance of cultural knowledge and identity. It has been repeatedly shown that engagement with traditional beliefs and practices has considerable influence on Aboriginal well-being (Reynolds, Quevillon, Boyd, & Mackey, 2006). For example, a study of American Indian and Alaska Native students, researchers found that youth subject to stress exhibited resilience because they were “embedded in traditional culture” (Strand & Peacock, 2003). In this study, connection to tradition involved several characteristics, including: “feeling good about tribal culture,” participating both in Native and mainstream worlds, feeling a strong belonging to community, appreciating parents and Elders, and being exposed to a Native school curriculum. In a recent study of First Nations communities in Saskatchewan, McKay and Prokop (2007) found that children’s resilience was enhanced by a strong sense of belonging to a vibrant community that “celebrates its own culture and history” (p. 47). Tradition reinforces resilience through the values of belonging, mastery, independence, and generosity (Brendtro, Brokenleg & von Bockern, 2001).

In a study of health issues among Aboriginal women, Walters and Simoni (2002) observed that spiritual and cultural engagements like the sweatlodge ceremony and Native crafts contributed to positive “identity attitudes” in women, mitigating their negative health concerns. These traditional practices offer an “indigenist” alternative to mainstream health interventions and so participation affirms cultural identity. Adelson (2000) has also observed how indigenous communities foster vitality and renewal through the creation and promotion of pan-Indian identities, involving practices such as the powwow ceremony.





Others have defined enculturation in terms of people's identification to their culture, their sense of pride in their cultural heritage, and the extent to which they integrate their cultural heritage into their lives (Zimmerman, Ramirez, Washienko, Walter, & Dyer, 1995, 1999). Studies have generally shown that ethnic pride knowledge and practice of culture can serve as a buffer against stress and reduce negative health outcomes (Austin, 2004). For example, in a study of Anishinabe communities Whitbeck and colleagues (2004) found that enculturation, as measured by identification and by participation in cultural practices, tended to be associated with less alcohol abuse.

Identity tends to be seen as something defined by membership in a group, heritage or line of descent. However, identity is actively constructed by social interaction, narration, and embodied enactment. Identity then may be acquired by birth or by conscious choice, a distinction the Anishinabe scholar Gerald Vizenor (1999) calls, *natio* or *ratio*. In cultural psychology and medical anthropology, there has been a shift away from an essentialized view of cultural identity toward recognition of the negotiated nature of identity as self-fashioning and this has been applied to understanding Aboriginal identities (Gone, 2006, 2007; Waldram, 2004). Identity is embodied through lived experienced and narrated in specific social contexts, both of which depend on the nature of community. Identity also is supported by larger political struggles to assert collective rights (Niezen, 2003).

Gone (2006) discusses the complexity of American Indian identity. For example, some individuals assert an "authentic" Indian identity, based on blood quantum, language fluency or ceremonial practice. At other times "authentic" identity relies on "proof" of having been marked by the colonial experience, for instance by family alcoholism. Gone frames American Indian identity as a process of active "intentional construction" involving individual agency and both local and wider social influences. For this reason, Aboriginal identity cannot be approached as a single construct; rather, it varies depending on how people draw on cultural meanings and practices to make sense of their own experiences.

In urban settings, shared cultural practices may be more difficult to measure because people may have very different backgrounds reflecting differences in community affiliation, level of urbanization, cultural background, and education. Urban Aboriginal peoples are often dispersed throughout a city. Urban health providers often misidentify Aboriginal clients and make incorrect assumptions about their cultural practices (Macdonald, 2008). For all of these reasons, it has been difficult to conduct epidemiological research on

urban Aboriginal groups and there is little information available about their health status or other factors relevant to resilience.

Many Aboriginal people living in urban spaces are bicultural or multicultural; they may live or value a traditional way of life and they may be integrated to varying degrees into the mainstream culture or other ethnocultural communities (Clark, 2006; Sissons, 2003). Long and Nelson (1999) have shown that Aboriginal people living off-reserve in rural or metropolitan areas may be more consciously aware of tradition to maintain their cultural identity and affiliation whereas settlement/reserve-based Aboriginal people may participate in tradition without consciously articulating it as such. For individuals living in a remote community, many elements of tradition are embedded in their way of life; for urban Aboriginal people, many expressions of tradition must be actively sought and recreated. Measures of resilience must capture this diversity, which may differ within and between Aboriginal cultures and communities (Clark, 2006).

Aboriginal people often have multiple cultural traditions represented in their families, friends and communities. This may give rise to mixed or hybrid identities, with new values, attitudes and activities (Sissons, 2005). This diversity may also create tensions and contradictions that individuals must negotiate to maintain a sense of personal coherence, clarity and comfort with their identity (Brass, 2008). Resilience is also demonstrated by individuals who mobilize the strengths of multiple cultural commitments of the groups with which they are affiliated (Reynolds et al., 2006; Strand & Peacock, 2002).

The mental health consequences of multiple or hybrid identities depend, in large part, on the receptivity of the community. Traditionally many Aboriginal societies have been respectful of individuals' perspectives and small communities allow each person to be known by others in their individuality, in ways that go beyond stereotyping and may prevent stigmatization. However, communities may also demand conformity and have little tolerance for diversity. When a community feels stressed or threatened by divisive forces, there may be stronger efforts to re-assert a common identity and silence or suppress alternate perspectives and ways of being. Tolerance for diversity and explicit acceptance of some notion of pluralism in identity are important to allow individuals to find their place in the community (Niezen, 2005).

The pathways from cultural identity and knowledge to resilience and well-being are complex. A study of Southwestern American Indian youth living on reservation or in urban settings found that participation in American





Indian traditional activities actually correlated with less successful outcomes, including higher levels of substance use. The authors suggest this counter-intuitive result may reflect the fact that since youth often attend traditional activities with their friends, these activities may increase the likelihood of negative peer influences. Waller, Okamoto, Miles, and Hurdle (2003) have also argued that due to values of collectivism and non-interference in Aboriginal cultures, children who are pressured to use drugs or alcohol may have a difficult time resisting. It also may be more difficult to refuse drugs from family members than from other peers at school. Then too, being more visibly indigenous may expose youth to greater levels of racism and discrimination which may, in turn, have a negative effect on their coping and well-being.

These examples make it clear that cultural identity does not operate in the same way for all groups of youth; rather, the meanings and implications of culture specific to each context must also be taken into account. Thus, although culture can be an important source of strength and wellness for individuals and communities, it cannot be conceived nor applied as a “one-size fits all” solution. Careful consideration must be given to how historical, social, economic, and political realities affect specific and global cultural aspects in turn, impact community members and the community as a whole.

#### 4.3.7 Cultural Continuity

A key element of resilience is the “persistence of identity” or a subjective sense of sameness over time, despite internal or external change. Identity persists because experience is continually integrated through language into meaningful sequences (Chandler, 2000). In this view, every individual is an author who reflects on the diverse episodes and events of his or her life and connects them to form a more or less unified story.

At the individual level, Lalonde (2006) describes two common cognitive strategies for maintaining identity: (i) identifying a stable underlying essence that remains the same over time and across situations; and (ii) constructing a narrative that links disparate aspects or versions of the self through descriptions of processes of change and transformation. Individuals (and cultural communities or traditions) may emphasize one more of identity construction more than the other. Those who “essentialize” tend to deny changes in identity, insisting on a stable personal core and those who “narrativize” foreground change while maintaining certain threads of continuity. In a study in BC, Lalonde found that Aboriginal youth tended to use the narrativizing style of identity construction. This style

may confer resilience in the face of rapid change as youth simultaneously reinterpret their external realities and find consistency in their internal worlds. According to Reynolds and colleagues (2006), resilience is apparent when a person is able to deal with contextual changes while maintaining identity factors, such as traditional values, beliefs and behaviours, with few personal or social difficulties.

Extending the notion of continuity of personal identity to the continuity of collective cultural identity, Chandler and Lalonde (1998, 2008) have conducted an important set of studies linking community indicators of health and well-being with community characteristics. They found that indicators of greater “cultural continuity” in the community were associated with better mental health, including lower suicide rates and school dropout rates. They define “cultural continuity” as a “workable personal or collective... mechanism” that reinforces “responsible ownership of a past and hopeful commitment to the future” (Chandler & Lalonde, 2008, p. 222). Originally, Chandler and Lalonde (1998) identified a set of indicators of cultural continuity including local (First Nation or community) control of education, police and fire, government, cultural centres, health, and social services. These were chosen partly for theoretically reasons but also because they could be readily determined by contacting a community representative. Most relate to the degree of control people exert over their “civic lives.” Subsequently the study was expanded to include a longer time period and more potential factors (Chandler, Lalonde, Sokol, & Hallett, 2003). The final set of factors found to be related included community efforts to: 1) secure legal title to traditional land; 2) establish self-government; 3-5) control local education, police and fire, and health facilities; 6) preserve and promote traditional practices; 7) involve women in local governance; and 8) take control of child and family services. The strongest effect on decreased suicide rates was with engagement in processes of self-government (which also strongly connected to the strengthening of traditional culture). The authors note that the “quest for self-determination” takes different forms depending on the community. For instance, in some communities success follows from renewing culture, while for others, priorities of land claims and education are more prominent. Collective means of preserving identity are linked to an individual process of coherence and continuity; both levels serve to mitigate suicide risk.

Extending this work, Hallett, Chandler and Lalonde (2007) found that among 142 BC First Nations communities, the preservation of indigenous languages had the strongest correlation with lower youth suicide rates, more so than processes of self-government, land claims,





Of course, political activism or other forms of collective action are not always positive for every group in a community. In a study by Carlton and colleagues of native Hawaiian youth, community movements had relatively little effect on resilience among Native Hawaiian adolescents. In fact some community factors impacted resilience negatively. The authors suggest that the Hawaiian sovereignty movement may have generated communal divisions and other frictions that have negatively affected youth (Carlton et al., 2006). Communities that report greater cohesion and community participation—whether due to political activism, social movements or shared tradition—may also alienate some individuals through lack of tolerance for difference and diversity (Onyx & Bullen, 2000).

#### 4.4. Summary

Theoretically, communities with high levels of social networks and social support should be marked by a high level of community resilience. Indeed, some approaches to community resilience emphasize the social resources available to the community as instrumental. Adger (2000) refers to community resilience in terms of the quantity and quality of resources accessible to the community. Importantly, he states that the extent to which these resources can be modified to meet new challenges is of prime importance. Similarly, Breton (2001) suggests that community resilience is dependent on the stock of human and social capital within the community. Social capital, in this context, consists of people, networks and voluntary associations that can effectively mobilize individuals into action, as well as community services and infrastructure. In all of these conceptions of resilience, a community's strength is seen as residing in material and social resources.

In fact, these resources are always in the service of particular individual and collective goals, aspirations or "life projects." Both everyday choices and larger political activities aimed at negotiating development must be understood in the context of these life projects.

Indigenous communities do not just resist development, do not just react to state and market; they also sustain 'life projects'. Life projects are embedded in local histories; they encompass visions of the world and the future that are distinct from those embodied by projects promoted by state and markets. Life projects diverge from development in their attention to the uniqueness of people's experiences of place and self and their rejection of visions that claim to be universal. Thus, life projects are premised on densely and uniquely woven 'threads' of landscapes, memories, expectations and desires (Blaser, 2004, p. 26).

Table 1 (next page) summarizes the community resilience factors identified in the general literature and those specific to Aboriginal communities. There is much overlap among these constructs and even those that are independent interact in many ways to amplify the effect of each other.

What is absent from this list are the larger factors affecting the larger society in which Aboriginal peoples live, both at regional, provincial, national, and international levels. These larger systems have a profound impact on the resilience of Aboriginal communities. Hence interventions aimed at enhancing resilience must also consider the broader society and global systems. Respect for Aboriginal cultures and autonomy in the larger society will contribute to conditions that enable individuals and communities to use their own resilience to maximum effect.

## 5. MEASURING COMMUNITY RESILIENCE

The ability to measure community resilience is important in order to recognize communities that are doing well, to identify factors or processes that may contribute to resilience and to evaluate the outcome of interventions designed to increase community resilience. Although various community level factors that contribute to resilience can be measured (including social capital, cohesion and ecological capital), resilience itself is difficult to conceptualize in ways that can be directly measured. In effect, resilience must be "inferred by the presence of positive outcomes in the social, economic, cultural and environmental health indicators of community well-being" (Rolfe, 2006, p. 12).

As previously discussed, there are a variety of definitions of community resilience. Each definition or conceptualization of resilience implies a different measurement strategy, ranging from assessing and aggregating individual-level data to the measurement of community-level institutions and activities (Harpham, Grant & Thomas, 2002). Each of the approaches has specific strengths and weaknesses; each approach captures certain aspects of community resilience, while missing other aspects of the concept. In this section, we review recent work on measurement of community resilience as well as making some suggestions to advance the field.

Norris and colleagues (2008) note several caveats to measuring community resilience. First, the advantages of particular resources may not hold across varying levels of analysis. For instance, "place attachment" may decrease resilience in situations of forced relocation, or it might actually increase the will of a community to rebuild after







disaster. Secondly, broad resources such as economic status or social security are not culture-neutral, but often culture-specific. Mechanisms for assuring social standing and class are often specific to tradition, such as degree of filial responsibility and other customs. Norms for social reciprocity and emotional and kin support can vary even within a culture. Third, the authors note that resilience is not an unchanging concept but a process that stems from changing resources. Resilience should not be used in new ways to stigmatize communities.

Before reviewing current strategies and available measures, it is important to consider the potential uses of such information by policy makers, public health workers and researchers. This primary purpose of measurement in this domain is to compare and contrast community resilience over time and across communities. Measuring community resilience over time can indicate the efficacy of interventions or policies designed to buttress community resilience. For example, health promotion interventions or language revitalization policies in Aboriginal communities may aim to increase community resilience. In this case, longitudinal research can measure community resilience before and after the intervention to assess impact.

The other main reason to measure community resilience is to compare data from different contexts, communities and circumstances. These comparisons can help identify specific components of community resilience. In some cases, Aboriginal communities can be compared with each other, or with other communities in the general population in order to identify the shared and distinct aspects of resilience. Several studies, for example, have compared the results of communities in different locations to each other; or Aboriginal participants to non-Aboriginal participants (Carlton et al., 2006; Kirmayer, et al., 2003; Schiff & Moore, 2006; Silmere & Stiffman, 2006). These types of analyses can help identify resilient communities and lead to a better understanding of the factors that promote community resilience. On the other hand, vulnerable communities can also be identified and offered appropriate interventions to strengthen resilience.

### 5.1 Aggregating individual-level data

One way of measuring community resiliency is to aggregate individual-level data to produce an average indicative of resilience at the community level. In other words, community resilience is approximated by evaluating and averaging community members' resilience. The average of individuals' resilience is used to represent the community's resilience. Such an approach can rely on data that is either (a) routinely collected through existing systems and

procedures, or (b) specifically collected for the purposes of assessing community resilience.

Whitley and McKenzie (2005) outline a number of methodological traps in measuring correlations between social capital and mental well-being that are pertinent to studies of community resilience. Studies that use measures from individuals face problems of individual bias. Individuals' state of well-being or distress influences their perception of the community. People who are distressed may not perceive social capital in their communities; on the other hand, an individual with relatively good mental health may report high levels of social capital. To get beyond this individual perception, it is important to canvas many individuals in a community and to use methods other than individual interviews or questionnaires, including participant and community observation.

#### 5.1.1 Existing or routinely collected individual indicators

Existing or routinely collected indicators refers to statistics that are collected as part of ongoing policies and programs. In the Canadian context, these statistics are often collected at the community (e.g. municipality or First Nation Reserve), provincial and federal levels. Examples of routinely collected statistics include vital registration (births, marriages, divorces, and deaths), census data (each decade), health services utilization data, and public health surveillance systems (especially concerned with notifiable diseases). Crime and educational statistics are often routinely collected as well. These statistics are generally not collected by academic researchers as part of an academic program of research. They are collected by government agencies aiming to document and monitor secular trends as part of their routine business.

Aggregating individual-level data collected through existing systems is extremely efficient and a relatively low-cost way to assess community resilience. However, such data collection remains underdeveloped in Canada (e.g. Smylie, Anderson, Ratima, Crengle, & Anderson, 2006; Smylie & Anderson, 2006). As well there are several methodological limitations to using this type of data. First, there is wide variation in what is routinely collected depending on the province, municipality or Aboriginal community. Each jurisdiction also has different ways of defining Aboriginal identity. Some Aboriginal communities collect precise and publicly-available data on health outcomes. Others may be more circumspect in collecting and releasing statistics on sensitive outcomes such as suicide and depression. Second, some statistics are routinely collected, but are not publicly available and are difficult to access, for both the community



and academic researchers. Again this varies by geographic region and institution (Smylie et al., 2006). Third, definitions of key concepts may vary across databases. Suicide is an example in this regard, with research showing that in some communities suicides may be officially recorded as “accidental deaths” for religious or social reasons. Fourth, routine statistics are often only collected on certain key variables, which may be poor proxies for community resilience. Fifth, assessing the size and characteristics of the population itself may be difficult in communities where there is much fluidity, mobility and in/out migration.

The routine collection of standardized statistics would assist enormously in the assessment of community resilience in Aboriginal communities. Some of the suggestions below can only be implemented given an improvement in the availability of such routine statistics. However, every Aboriginal community is unique and should also be encouraged to develop locally customized and culturally meaningful measures of community resilience. Ideally, this process would allow for the generation of standardized data that can be validly compared across communities, as well as locally grounded data that can be validly compared over time.

In analyzing existing statistics for indicators of community resilience, researchers often focus on the following domains: (i) economic indicators; (ii) health indicators; (iii) educational indicators; and (iv) social and familial indicators. To be interpreted as measures of resilience such indicators must be compared across communities exposed to similar levels of adversity.

Economic indicators that can be utilized in this way include factors such as the per cent of able-bodied adults employed, average household income or levels of home ownership. This approach can gauge the economic well-being of a population and is often used to compare city neighbourhoods to assess need for urban regeneration programs. Poverty and unemployment are well-established determinants of health and well-being. Communities with high unemployment and low levels of income are often assumed to lack community resilience. However, this ignores other sources of meaning and value in the community including important unpaid activities (e.g. hunting, ceremonial activities, caregiving) and spirituality, which may contribute to community resilience. Economic indicators are often collected by the various levels of government, though they may be difficult to access. They can tell us something about community resilience, but must be appropriate for the context and can only give a partial picture.

Another common approach is to assess routinely collected health statistics as a proxy for community resilience. This often involves assessing the incidence or

prevalence of a given health problem within a community and then comparing these statistics over time or across communities. Most commonly, this is a mental health outcome variable collected by public health authorities or the coroner, such as deaths by suicide. Psychiatric epidemiologists may measure the extent of an outcome or risk factor, for example substance abuse or depression in the community. This is done through the administration of standardized measures such as the Beck Depression Inventory (BDI) (Beck et al., 1988) or the Center for Epidemiologic Studies Depression Scale (CES-D) (Somervell et al., 1992) of the K-6 (Furukawa et al., 2003) to a representative sample of a community. Results can then be aggregated and compared over time or to community averages and norms. Other health measures that may be used as proxy variables for community resiliency include life expectancy or per cent of people disabled.

Another common approach is to assess educational indicators as signs of community resilience. Commonly used measures include school retention rates or the percentage of students graduating from high-school. Again the availability of these statistics varies. Other measures could include percentage of individuals entering higher education or completing college degrees. Academic performance has been shown to increase individual-level resilience in some Aboriginal youth (Strand & Peacock, 2003). However, these indicators focus on formal schooling rather than education in its broader sense, and therefore do not capture the range of learning experiences important in Aboriginal communities. Aboriginal communities may place greater value on education by participation in traditional subsistence activities rather than “book-learning” in schools.

Social and familial indicators can also be aggregated to measure for community resilience. This may include factors such as the divorce rate, the number of single-parent families or rates of domestic abuse. Again, the significance of these depends on cultural configurations of the family, which may differ from Euro-Canadian notions of the nuclear family. Crime statistics can also be used as proxies for community resilience. Criminologists often divide crime into serious crime (for example murder, rape, assault) and “minor incivilities” which includes vandalism, graffiti and minor theft. These can be compared and contrasted over time and place as indicators of resiliency.

In the social domain, many of the factors discussed in the social capital section can be used as proxies for community resilience. These include levels of trust, community spirit, social support, and social networks. Again these data can be collected through self-report measures where individuals report subjective levels of trust or social



support using measures such as the Harvard University Social Capital Scale (Harvard University, 2002). These self-report measures are most effective if used in pre/post longitudinal studies testing the population impact of a population-level intervention.

### 5.1.2 Specific Measures of Individual Resilience

All of the measures discussed above are proxy variables that can be used to infer levels of community resilience. However some researchers have created instruments that deliberately attempt to measure self-perceived individual-level resilience.

This work includes interest in individual resources for dealing with chronic illness. For example, the “Brief Resilient Coping Scale” was developed to measure resilience in people with rheumatoid arthritis (Sinclair & Wallston, 2004). The scale consists of four items: 1) “I look for creative ways to alter difficult situations, regardless of what happens to me;” 2) “I believe I can control my reaction to difficult situations;” 3) “I believe I can grow in positive ways by dealing with difficult situations;” 4) “I look for ways to replace the losses I encounter in life.” Responses to this scale correlate with other individual attributes, such as tenacity, optimism, creativity, problem solving, and commitment to positive growth in difficult situations. People who endorse the items are likely goal-directed and successful in overcoming challenges (Sinclair & Wallston, 2004).

Another approach to measuring individual resiliency is based on research that suggests that “sense of belonging” or “sense of community” are linked to resiliency (Baumeister & Leary, 1995; Macintyre et al., 2002; Young, Russell & Powers, 2004). Davidson and Cotter (1986) set out to evaluate people’s “sense of community” which they defined as the “special attachment” between people and their social milieu in urban settings, by measuring people’s social motives “especially likely to produce sense of community.” The scale includes factors such as affiliation, control, safety, privacy, sense of urban aesthetic, and spiritual fulfilment. The authors envisioned these variables to be at work in social contexts such as the home, neighbourhood, government institutions, public services, religious venues, and recreational and educational sites. The goal of their scale was to make resilience a generalizable concept across cities—though, of course, such a technique may overlook important cultural differences in measurement.

While much of the work on measuring social capital has occurred in the general population in the U.S. and U.K., without reference to culturally specific factors, there have been efforts to develop measures that can be used internationally (Chen et al., 2009; De Silva et al., 2006; Grootaert et al., 2003). Mignone (2003) has developed

a guide to measuring social capital for First Nations communities.

## 5.2 Community-Level Indicators of Community Resilience

Communities are complex systems with emergent dynamics (i.e. they are more than the sum of the individuals they contain). Conversely, individual members of a community or group do not necessarily reflect the characteristics of the group. Both individual and collective processes require separate study and analysis because each level has its own properties and patterns of interaction or dynamics. Misattributing the characteristics of the group to individuals within it has been termed the ecological fallacy; incorrectly assuming that group level processes can be identified purely from individual characteristics has been called the “atomistic fallacy” (Diez-Roux, 1998).

Medical geographers, sociologists and epidemiologists have long argued that community-level concepts must be measured through community level indicators. This tradition has a strong theoretical and empirical heritage, and many creative researchers in these fields now use multi-level designs with complex statistical models to discern community level influence on health and well-being. This approach addresses the influence of structural factors on individual and collective well-being. As such, it avoids the tendency to “victim-blaming” that occurs with an exclusive focus on individual-level risk factors divorced from their social context (Holton, Brass & Kirmayer, 2009).

### 5.2.1 Existing or Routinely Available Community-Level Indicators

Von Kemenede (2003b) provides a useful review of community-level indicators of social capital based on available statistics. Some of these are not consistently available for Aboriginal communities.

One instrument currently being applied to First Nations across Canada is the First Nations Community Well-Being (CWB) index (McHardy & O’Sullivan, 2004). It combines several dimensions of social and economic well-being into a single indicator. Developed by Indian and Northern Affairs Canada (INAC) to assess the socio-economic well-being of First Nations, the CWB index uses data on education, labour force participation and employment, income, and housing from the Canadian Census to derive a single index score. Notably, data on other important aspects of life in First Nations communities, such as health, the natural environment and freedom from crime are not collected in a way that makes their use suitable in this index. Nonetheless, Cooke (2005) concludes that the







community organizations, faith institutions, businesses, and arts institutions. In low-income communities the availability and affordability of these services is particularly key.

*Structural factors* are broader elements such as race relations, and employment and economic opportunities. When THRIVE was piloted in three American communities (rural, suburban and urban), in New Mexico, California and New York City respectively, several issues emerged as priorities across the sites: healthy, affordable food, shifting focus to the needs of youth and implementing more youth services and programs; and learning to deal with community diversity, for instance the influx of new migrants and cultural groups. While elements of this toolkit could be adapted to Aboriginal communities, there are unique aspects of Aboriginal culture, history and context not captured by this measures oriented toward culturally diverse urban neighbourhoods.

In a recent study of First Nations communities in Saskatchewan, McKay and Prokop (2007) found that individual-level child resilience was enhanced by a strong sense of “belonging to a vibrant, positive community that proudly celebrates its own culture and history” (p. 47). Factors that contribute to a vibrant positive community may include powwows, sweatlodges, longhouse activities, and extent of traditional ceremonies. The extent of traditional dance, music, sport, art, religious, and spiritual practices could all indicate a resilient and active community. Indeed, such activities are often measured by urban sociologists to gauge levels of social cohesion and community need. These are frequent variables used in the measurement of social capital. The number and frequency of these activities and the level of participation could be assessed as a potential measure of community resilience.

One aspect of Aboriginal communities where developing new indicators could be useful concerns spirituality. There are difficulties in assessing spirituality in general because the term covers an increasingly broad array of meanings (Koenig, 2008). Moreover, in assessing spirituality among Aboriginal people, it is important to remember that spirituality is often expressed in “everyday” activities, for example, in caregiving, hunting or consuming traditional foods. This is augmented by more specific sacred activities such as powwows, sweatlodges, smudge ceremonies, or in many cases conventional Christian worship. Spiritual orientation and activity can be measured at the individual level and aggregated to the community (Garoutte et al., 2003). This might include self-report measures of extent of engagement in spiritual or religious practices such as prayer or attendance at religious/spiritual ceremonies and rituals. Community-level variables can

also be measured that indicate scope and extent of spiritual practices. This could include the number of sweatlodges, healing circles or church services held within a community within a certain period of time. Self-report measures can then be triangulated with community-level measures to better assess the role and impact of spirituality/religion in the community under observation.

Another factor that could benefit from such an approach is language retention. Researchers can investigate language retention through self-report measures of who does and does not speak the language and of its use in other settings like local signage or media. However small numbers of speakers may not necessarily indicate a low resilience community; the community may have an active revitalization program in place that focuses on other aspects of culture.

### 5.3 Measuring Resilience in Aboriginal Contexts

Much of the adversity faced by Aboriginal peoples reflects structural violence<sup>6</sup>: inequalities in power, economic resources and social capital that reflect the legacy of colonization, forced assimilation and cultural oppression that Aboriginal people in Canada have faced over several hundred years.

The resilience of contemporary Aboriginal communities is a consequence of complex historical and social forces. As such, any attempt to measure community resilience must consider historical factors. Just as the developmental trajectory of the individual across the lifespan contributes to individual health and resilience at any given point, so do the dynamics of development influence the resilience of communities.

Historical changes in communities have reinforced some elements of community life while destabilizing, transforming or casting aside other aspects. Many of these historical changes, therefore, cannot be interpreted as simply positive or negative—they involve complex tradeoffs made for survival. Community resilience is not simply a matter of forging blindly ahead or of recoiling from threats and adverse circumstances, but a process of engagement, negotiation, creative adaptation, and active challenging of the evolving status quo.

Similar dynamics may be at play within communities. Qualitative research suggests that internal conflict within communities, can have a corrosive influence on community life and resilience (Adelson, 2002; Morgan Phillips, *personal communication*, August 10, 2009). Likewise friction and conflict between a First Nation and the wider geographic community can also have a detrimental effect on well-



being. That said the outcomes of conflict, rather than the presence of conflict per se, that is the prime determinant of resilience. Qualitative research on resilience in Kahnawake, for example, suggests that the “Oka crisis” galvanized the community, giving them a sense of purpose and increasing communal esteem (Morgan Phillips, *personal communication*, August 10, 2009). The types, extent and outcomes of both internal and external political conflict again could be enumerated as a potential indicator of community resilience.

The legacy of the residential school system continues to have a profound impact on Aboriginal health and well-being (Stout, 2003). However, Aboriginal communities were differentially affected by the residential school system. Some communities lost a greater proportion of children to residential schools than others. Recent research suggests that attendance at an Indian Residential School is associated to distress not only among those who attended, but also their descendents (Bombay, Matheson & Anisman, 2009). The intergenerational transmission of trauma can occur both through family interactions and larger communal processes (Kirmayer et al., 2007; Serbin & Karp, 2006). The transgenerational impact of residential schools may depend on the proportion of parents in the community influenced negatively by these experiences, and the availability of alternative resources to support effective parenting and positive family life.

Whitbeck and colleagues (2004) devised two 12-item scales to measure the effects of historical trauma among American Indian individuals in the Midwest. They originally developed the scales through extended focus groups with Elders and other Indigenous individuals on reservations. During focus groups the participants were asked to share their ideas of loss. The authors extracted the most frequent themes from discussions and incorporated them into the *Historical Loss Scale*. They also developed a second scale, the *Historical Loss Associated Symptoms Scale* as a measure of the emotional responses triggered by the thought of the losses. The Historical Loss Associated Symptoms Scale could be viewed as a measure of how individuals have emotionally coped with and managed past and current losses. Although not a direct measure of the resilience process, it can approximate individual’s emotional resilience to collective adversity.

Using constructs like resilience across different cultures and communities raises issues of the equivalence of meaning and measurement. Burgess and Berry (2009) urge researchers to develop Aboriginal-sensitive measures. In some instances, scales administered in English may not accurately reflect indigenous conceptions of health, illness or resilience. Even where English or French are the languages of everyday life, Eurocentric categories can confound

results. For instance, in Aboriginal community contexts, the category of “income” on scales and questionnaires should include forms of subsistence production, and “education” should include traditional knowledge. Future studies might broaden definitions of successful functioning by examining other outcomes that are valued by Aboriginal youths and their communities (Silmer & Stiffman, 2006). Attention must also be paid to developing specific definitions of terms such as resilience or spirituality so that they are sensitive to Aboriginal conceptions. In a recent study, Schiff and Moore (2006) wanted to assess how spiritual elements of the sweatlodge translate to emotional well-being. They began the study with few available, relevant models. No existing instruments connect the two variables in context of a holistic, Aboriginal framework. In the absence of an ideal instrument, the researchers combined two questionnaires, the SF-36 and The Heroic Myth Index (HMI), for the purposes of the study. The SF-36 is a multipurpose health survey that provides a general measurement of physical and mental health. The HMI is a scale, based on Jungian psychology, that consists of 72 items reflecting various personality archetypes (innocent, orphan, warrior, caregiver, seeker, destroyer, lover, creator, ruler, magician, sage, fool, etc.). Schiff and Moore noted that Aboriginal participants seemed to dislike the SF-36 scale because of its limited, objective-style response options. Some participants had even written an “X” next to questions to indicate dissent. The HMI scale was better received, possibly because it involved more fluidity of response. It also avoided notions of deficit and focused more on strengths and resilience.

The deficiency of existing instruments is often compounded by a more basic problem termed the category fallacy (Kleinman, 1977). The category fallacy refers to the uncritical imposition of categories and constructs developed in one culture on another culture. Some of this can be seen in the social capital literature. For example, electoral turnout is often considered a valid measure of a community’s social capital. However, research suggests that in some active and presumably resilient Aboriginal communities, segments of the community may boycott Council elections as these are considered externally imposed governmental institutions. In this context, electoral turnout may not be an indicator of communal resilience. In fact, in the example just given, it could be the complete reverse: lower levels of participation in Council elections could indicate more cultural continuity, which as discussed above has been linked to community resilience. Qualitative research exploring the local meanings of potential indicators is essential to develop valid measures of resilience (Adams, Madhavan & Simon, 2006; Canino et al., 1997; De Silva et al., 2006; Ungar, 2004).



## 5.4 Summary

We have described measures of community resilience based on an aggregate or average of individual reports and on indicators of community organization and functioning. Using both methods provides a form of triangulation that strengthens the validity of any inferences made. This approach is advocated by Ungar and colleagues (2005) who argue that resilience can be best understood as an interaction of individual capacities and structural conditions, which are closely related to social, political and economic assets.

Developing appropriate indicators of community resilience can follow three basic steps:

1. Decide how to conceptualize resilience; what is the local definition of community resilience in your context (e.g. vitality of language and culture).
2. Determine which indicators/variables speak most strongly to this definition, and how they interpreted to represent community resilience (e.g. language use and cultural events).
3. Decide how to best measure the indicators (e.g. interview people on their use of language or count language teaching programs in the community); count number and frequency of cultural events in the community and level of participation).

Although it is intended to have predictive value, identifying communities that will do well in the face of new or continued challenges in the future, resilience is usually measured by evidence of having already done well despite past adversity. Only a well-established model of resilience that documents the value of certain indicators can allow the confident use of those as markers of future response. Promising indicators relevant to the historical context of Aboriginal communities have been identified but much more study is needed to insure these are applicable across diverse communities. As well, since resilience is not a fixed trait of individuals or communities but a dynamic response to changing circumstances. Research must therefore be attentive to the fluctuations of resilience over time.

## 6. PROMOTING COMMUNITY RESILIENCE

The key question from the point of view of health and well-being is how to increase, promote and maintain resilience in Aboriginal communities. Many types of intervention directed at individuals and whole communities may contribute to the development of community resilience (Richardson, 2002).

As discussed in Section 4 of this report, HeavyRunner and Morris (1997) outline some features common to many Aboriginal worldviews that may contribute to resilience. These include: values, beliefs and behaviours related to spirituality, child-rearing, extended family, veneration of age/wisdom/tradition, respect for nature, generosity and sharing, cooperation and group harmony, autonomy and respect for others, composure and patience, relativity of time, and non-verbal communication. This list overlaps with that developed in recent research with Inuit elders in Nunavut, who emphasized spirituality, interconnectedness with others, and knowledge of culture and traditional practices as sources of resilience (Ajunnginiq Centre & Korhonen, 2007). Tanner (2008) found that sources of well-being recognized by James Bay Cree included: shared parenting and community responsibility for children; emphasis on language as a source of renewed culture; knowledge of history and tradition as a key element of identity; development of traditional skills; emphasis on the importance of kinship and connection with one another; and spirituality and respect for nature. Others have found similar sources of resilience emphasizing themes of connectedness, spirituality, cultural knowledge, and tradition (Lavallee & Clearsky, 2006).

As can be seen from this brief summary, the themes that commonly occur as potential areas of action to promote resilience in Aboriginal communities are varied but center on factors such as cultural practices, tradition, spirituality, interconnectedness, and respect for land. Potential domains for action are listed in Table 2. Intervening in these broad domains may be the best strategy for enhancing community resilience. In briefly considering these domains, we will refer to examples of culturally sensitive prevention or resilience promotion programs with Indigenous populations that have been studied or documented (Ellis, 2004; LaFromboise & Lewis, 2008; Waller, Okamoto, Hankerson, Hibbeler, Hibbeler, et al., 2002). These prevention programs focus not just on reducing risk, but also on promoting protective factors which include resilience (Bogenschneider, 1996).

### 6.1 Revitalizing Language, Culture and Spirituality

Language, culture, spirituality, and ceremony are thoroughly intertwined in many Aboriginal communities. It has been repeatedly shown that engagement with traditional cultural beliefs and practices has considerable influence on Aboriginal well-being (Reynolds, Quevillon, Boyd, & Mackey, 2006). Walters and Simoni (2002) have written of the way Aboriginal women draw from indigenous cultural resources to combat stress and negative health effects. They discuss the importance of “enculturation,” the processes by







activities and reinforce a sense of community, belonging, cultural knowledge, and pride. Such classes could also be open to some interested non-Aboriginal people to enhance linking social capital. This would have the added effect of improving understanding and appreciation of Aboriginal culture and worldviews in the broader society, which in turn, can contribute to resilience in Aboriginal communities.

In many Aboriginal communities, cultural knowledge and identity are transmitted through oral tradition. Facilitating the exchange and telling of stories may be an important factor in developing community resilience. Places and events should be set up that encourage story telling in Aboriginal communities. In the clinical setting, Gone (2006) has advised practitioners to assess their clients' "cultural identity status" in the process of formulating therapeutic goals. He suggests that practitioners support distressed clients in reconstituting cultural identity as a form of wellness. Undoing self-pathologizing narratives, for example, may help resolve identity confusion. The same process can occur at the community level. Narrative interventions can also be extended beyond the family, as when communities work to establish, maintain and access collective cultural and spiritual histories.

In the clinical setting, Landau (2007) encourages use of the "genogram," a pictorial display of family relationships and health histories, to map the connections between personal, historical and social events. This can help individuals to understand their predicaments in terms of larger historical forces. The same strategy can be extended to families, groups or whole communities through group discussions and explorations of collective identity.

## 6.2 Strengthening Local Control and Collective Efficacy

Many studies suggest that collective efficacy and local control are important determinants of well-being in Aboriginal communities. Ledogar and Fleming (2008) argue that collective efficacy is especially pertinent in the Aboriginal context; they cite the definition of Sampson and colleagues collective efficacy as "the capacity of a group to regulate its members according to desired principles – to realize collective, as opposed to forced, goals" (Sampson, Raudenbush & Earls, 1997, p. 918). Collective efficacy reflects the extent to which people feel they can count on their community to take specific forms of action needed to insure their collective well-being. Collective efficacy and local control are important because colonialism, government control and tutelage have undermined traditional political structures and autonomy. New assaults on Aboriginal

communities have come from global enterprises and market forces that operate without concern for local governance. Political activism allows Aboriginal people to defend their communities against these external forces. Local control can insure that services are tailored to the needs of the community (Bowles & Gintis, 2002).

The work of Chandler and Lalonde suggests that local control and collective efficacy in Aboriginal communities are key determinants of community well-being. In their studies, the predictors of health and resilience include: 1) securing legal title to traditional land; 2) establishing self-government; 3) controlling local education, police and fire, and health facilities; 4) preserving and promoting traditional practices; 5) involving women in local governance; and 6) taking control of child and family services. All of these factors can be promoted to enhance community resilience.

Creating and directing local community activities may be essential to collective well-being. To the extent that community members feel a sense of belonging, collective agency, in turn, will support personal agency. Ways of fostering this sense of local control include: community gatherings, community conversations, the collective sharing of feelings, relationships between younger generations and Elders, and language promotion. Community mobilization to address social concerns and collective control over health and other projects are also essential to enhancing identity and self-esteem.

Community empowerment aims to build the capacity within a community to meet challenges. It can do this across multiple domains through interventions that aim to: improve participation; develop local leadership; increase problem assessment capacities; increase critical awareness; build effective organizational structures; improve resource mobilization; strengthen links to other organizations and people; create an equitable relationship with outside agents; and increase local control over programme management (Bopp, 1999; Laverack, 2005). A review of programs in Australia and New Zealand aimed at increasing indigenous community empowerment identified the following factors associated with positive outcomes: community ownership of the problem and solution; the level of existing community empowerment in the local setting; the use of local facilitators; use of outside resource people; establishing trusting partnerships; a local coordinating group; and adequate resources (Campbell et al., 2007).

Kral and Idlout (2008) describe community-generated activities in two Nunavut communities just before each experienced a decrease in suicide activities. One such activity involved the regular gathering of community members over a period of time. Members of the group discussed



recent suicides, and identified their feelings, concerns and motivations about suicide and its prevention in the community. Kral and Idlout call this a space of “synchrony” in which group thoughts generated productive ideas. Similarly, an effective measure in the community of Igloolik involved the establishment of a Youth Committee which met every two weeks to discuss issues and ways to improve community life. Finally, another Igloolik group came together to produce a successful feature film (“Atanarjuat: The Fast Runner”). In light of their experience, Kral and Idlout emphasize that “it does not appear to matter so much what the project is as much as that program or initiative is the community’s own” (Kral & Idlout, 2008, p. 328).

Decentralized and collective power allows communities to determine their own health priorities and establish culturally appropriate programs. In urban centres, Clark (2006) has also found that the best mental health intervention programs depend on community ownership, along with consistent and effective leadership and a culture-focused approach.

Compared to local programs, interventions that are parachuted in from the outside are less likely to be successful in promoting community resilience because they do not build local capacity. Support for the development of local interventions will build local capacity and have broader effects on resilience. This support can include financial resources and expertise that is oriented toward facilitating local program development.

### 6.3 Supporting Families and Healthy Child Development

Building resilience may involve preventive measures that occur early in development. This can include support for parents and families with young children or early adolescents. Interventions that encourage positive parenting and intergenerational exchange within families are likely to foster community resiliency. This is especially the case given that the residential school system fragmented families and disrupted intergenerational relationships. Programs and services geared to the well-being of Aboriginal communities therefore must facilitate the importance of sharing and cooperation between generations.

Studies have found that Aboriginal youth tend to rely on cultural and social networks for help rather than professional resources. Efforts to target youth problems, such as violence, are therefore moving away from individual psychotherapy toward family and group interventions that incorporate community and cultural values (Clauss-Ehlers & Levi, 2002). Residential treatment programs also have

acknowledged that many protective factors can be best addressed through community and cultural involvement, for example by encouraging traditional Aboriginal teachings that promote morality, humour, creativity, initiative, relationships, independence, and insight (Dell, Dell & Hopkins, 2005). Policies and programs that foster stronger cultural identity by encouraging collective events for sharing Aboriginal history and expressions of cultural pride which are youth-oriented may be helpful interventions.

### 6.4 Building Social Capital, Networks and Support

Activities that enhance intra-community social cohesion and expand social networks may be very helpful in increasing social support. These include regular collective events such as powwows, educational events with Elders and sports events. Shared spaces where people can gather must be created and maintained; these may include community centers, religious or other community organizational settings, or recreational facilities. Other specific programs and services can be developed to bring people together over common concerns, for example, parenting programs. Given the respect for the wisdom of Elders in Aboriginal communities, such programs can facilitate sharing and cooperation across the generations.

Much research suggests that community resilience may be mediated by natural helping among community members (Waller & Patterson, 2002) and networks. These include organizations such as church support groups, veteran’s organizations, self-help groups, and sporting associations (Sonn & Fischer, 1998; Iwasaki, Bartlett, MacKay, MacTavish, & Ristock, 2005). Such community groups allow sharing of resources (both economic and emotional), and facilitate the propagation of collective systems of meaning that can increase community resiliency. The creation, perpetuation and expansion of such groups may increase social capital and social networks, and be a useful intervention for enhancing community resilience. This type of organization can be developed in both remote communities and in urban settings.

Interventions focused on developing internal links should be complemented by interventions that enhance extra-communal linkages, as this allows for communal empowerment and influence on wider society. Strengthening internal networks and building broader links among communities and across regions will contribute to the communities resilience. Political activities that allow the community to organize around common goals, for example, efforts to regulate regional development, can have a strong effect on the sense of cohesion and collective efficacy.









and support; revitalizing language, culture and spirituality; supporting families and parents to insure healthy child development; enhancing local control and collective efficacy; building infrastructure (material, human and informational); increasing economic opportunity and diversification; and respecting individual and cultural diversity within the community.

Resilience is a broad and flexible concept, encompassing processes of risk and vulnerability, growth and transformation, culture and community, social structure and personality, and power and agency. Resilience brings together a wide array of interacting factors that are best understood in relation to each other. This integrative view is consistent with Aboriginal philosophies that recognize the physical, emotional, intellectual, and spiritual dimensions of experience as essential to a balanced life. The social or communal dimensions of this balance include: knowledge of language, history and tradition; cultural and collective identity; development of traditional skills or know-how; the maintenance of kinship and connection; and spirituality, expressed in part through respect for the environment and the natural world. Most of the models of resilience discussed in this review acknowledge these cultural and spiritual elements. At the same time, thinking about resilience requires that we remain attentive to the specific forms of adversity and suffering that have shaped contemporary life in Aboriginal communities.

## 7.2 Models and Measures of Community Resilience

The sources of community resilience distinctive to Aboriginal communities include: connections to family and community, which are structured according to indigenous concepts of interdependence and caregiving across the life cycle; oral tradition and storytelling which provide vehicles for the transmission of cultural knowledge and values, as well as adaptive strategies of humour, context-sensitive thinking and creative problem solving; connection to the land and the environment which are central to indigenous notions of personhood; healing traditions which provide paths for personal transformation and interpersonal conflict resolution; ceremony and spirituality which provide access to collective wisdom, awareness of the modest place of human beings in the world, and a sense of the connectedness of all beings; cultural knowledge and identity which connect the individual to a valorized history as First Peoples; cultural continuity which maintains a sense of the meaningful trajectories of each person from past through present to a future with hope and possibility; and collective agency and political activism which give individuals and groups

the tools to challenge the forces of oppression and to work actively to make their own future.

The concept of community resilience has important implications for efforts to promote mental health in Aboriginal communities. However, there are many approaches to community resilience and not all fit equally well with Aboriginal values or realities. A model that works well for some types of Aboriginal community may not capture essential aspects of another Aboriginal context. Aboriginal communities vary widely in size, demography, geographic location, history and culture, with consequences for both their internal dynamics and their interactions with the rest of society and with global systems. Many Aboriginal communities have undergone profound changes as a result of colonization, bureaucratic control and interactions with neighbouring communities and populations. Each model of resilience must be evaluated in terms of its relevance to a particular community's history, current situation and future development.

Social capital is a potentially useful concept for understanding resilience in Aboriginal communities. The literature on social capital offers potential models of the internal and external relationships of communities. It captures social elements such as sharing and reciprocity that are fundamental to Aboriginal perspectives (Mignone & O'Neil, 2005). However, social capital requires systematic rethinking to be applicable across different geographic settings and cultural contexts.

## 7.3 Holism and Systems Thinking

Resilience depends on complex interactions within systems, including physiological and psychological processes within an individual and social, economic and political interactions between individuals and their environment, or between a community and the surrounding ecosystem and the larger society. As a result, resilience can only be understood by considering systems in their ecological and social context. In the case of communities, resilience is determined both by dynamics and by structural issues influencing access to resources, political organization and collective efficacy.

Some of the structural problems faced by communities result from government policies and administrative practices, notably the segmentation of policies, programs and services that aim to address issues of mental health, substance abuse, social services, corrections, and other social problems that are all aspects of the same underlying social problems. This artificial separation of practices, professions, aggravated by conflicts over jurisdictions (Macdonald, 2008) has imposed wrecked havoc with Aboriginal communities. Government can play a useful role in facilitating community





**Community:** a group of people who live together or are connected through emotional bonds with each other and the group, shared connection to place, common interests, values, and activities and identities.

**Community-level:** factors that are properties of communities, for example, pollution, collective efficacy and generic trust.

**Cross-sectional research:** a study design where exposure and outcome variables are collected simultaneously.

**Ecological Capital:** a broader concept than social capital that encompasses four domains: natural capital (the surrounding biological ecosystem and environmental resources); human capital (skills, health, abilities, education, and the cultural values of community members); social capital (bonds between individuals as well as across wider voluntary or institutional networks and organization; and built capital (roads, homes, equipment, and other human-made structures).

**Epidemiology:** the scientific study of the distribution and determinants of health and illness in populations.

**First Nation(s):** an Aboriginal community that is recognized by Indian and Northern Affairs Canada (INAC) that typically has federal reserve land and registered membership defined by the Indian Act as status Indians. A First Nation community may also include other land and members.

**Generalizability:** the extent to which findings from a specific study sample can be generalized to either: (i) the local population (sometimes known as internal validity); or (ii) the population at large (sometimes known as external validity).

**Incidence:** the number of new cases of a health problem occurring in a population over a specific period of time (e.g. one month, 12 months).

**Individual-level factors:** factors that are properties of individuals, for example, age, gender and income.

**Linking social capital:** the degree of integration and social efficacy of groups within a hierarchical society

(including, for example, the relationship with various levels of government).

**Longitudinal research:** a study design where a cohort of people are followed-up over a specific period of time with exposure variables measured at baseline and outcome variables measured after a period of elapsed time.

**Prevalence:** the number of cases with a health problem in a population (usually expressed as a percentage of the total population; also sometimes specific in terms of a time period).

**Protective factor:** a factor that reduces the likelihood of developing a health problem.

**Qualitative research:** a research methodology which involves the collection of non-numerical data, mostly in the form of in-depth interviews, focus groups and participant observation.

**Risk factor:** a factor known to increase the possibility that an individual will develop a health problem.

**Social capital** is an umbrella term used to describe aspects of social networks, relations, trust and power, either as a function of the individual, or as a function of a geographical region (e.g. a First Nation community).

**Social networks** refer to the extent and nature of linkages between individuals.

**Social support** refers to individual-level instrumental and emotional support received by one individual from other individuals.

**Structural violence** refers to forms of violence that occur because of the way societies are structured to create and maintain inequalities, harmful and oppressive circumstances that cause illness and injury to people.

**Vertical social capital:** (see Linking social capital).



## APPENDIX B. QUESTIONS FOR DISCUSSION

What are the dimensions of resilience at the level of the community? How do these differ from individual resilience factors?

What aspects of resilience identified in other communities apply to Aboriginal communities?

What are the unique or distinctive facets of resilience in Aboriginal communities?

What are the advantages and disadvantages of using social capital as a framework for understanding and measuring community resilience in Aboriginal communities?

Is social capital mainly a Eurocentric concept, or does it resonate with Aboriginal values and worldviews?

What does the concept of social capital omit that may be important in community resilience for Aboriginals?

Do different sizes, locations and organizations of communities require different models and measures of resilience?

What are the key dimensions of Aboriginal community resilience?

In practical terms, which factors are easiest to recognize, monitor or measure over time and across communities?

Which existing measures should be tailored to the Aboriginal perspectives? What form should this process of tailoring take?

What are the most feasible and effective methods to promote Aboriginal community resilience?

## APPENDIX C. RESOURCES ON COMMUNITY RESILIENCE

**Community Capacity Building – A Practical Guide**  
Prepared by Dr Rowland Atkinson and Paul Willis of the Housing and Community Research Unit, School of Sociology, University of Tasmania (2006) <http://www.utas.edu.au/sociology/HACRU/6%20Community%20Capacity%20building.pdf>

### **Building Resilience in Rural Communities Toolkit**

The University of Queensland and University of Southern Queensland:

[http://learningforsustainability.net/pubs/Building\\_Resilience\\_in\\_Rural\\_Communities\\_Toolkit.pdf](http://learningforsustainability.net/pubs/Building_Resilience_in_Rural_Communities_Toolkit.pdf)

### **The National Disaster Recovery Principles**

South Australian Government (2008)

<http://www.dfc.sa.gov.au/pub/default.aspx?tabid=196>

### **Community Builders NSW**

an interactive electronic clearing house

<http://www.communitybuilders.nsw.gov.au/>

### **Assessing a community's capacity to manage change: A resilience approach to social assessment**

Brigit Maguire and Sophie Cartwright, Bureau of Rural Sciences, May 2008

[http://www.affashop.gov.au/PdfFiles/dewha\\_resilience\\_sa\\_report\\_final\\_4.pdf](http://www.affashop.gov.au/PdfFiles/dewha_resilience_sa_report_final_4.pdf)

### **The Community Resilience Manual: A resource for rural recovery & renewal**

Canadian Centre for Community Renewal

<http://www.cedworks.com/communityresilience01.html>

### **Mental Health Foundation of Australia, Resiliency Resource**

[http://www.embracethefuture.org.au/resiliency/resiliency\\_model.htm](http://www.embracethefuture.org.au/resiliency/resiliency_model.htm)

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