

CONCEPTUAL UNDERSTANDING OF SOCIAL CAPITAL IN FIRST NATIONS COMMUNITIES: AN ILLUSTRATIVE DESCRIPTION

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ABSTRACT

The present study resulted from a program of research that seeks to characterize and measure social capital in First Nations communities, for subsequent theorization and empirical testing of its potential as a health determinant. The study consisted of two phases with distinct methodologies. The first phase of the study used qualitative methodology to contribute to the development of a conceptual framework specific to First Nations communities. The article reports on findings of the first phase and provides a more concrete understanding of what would constitute social capital in First Nations communities. It details the conceptual framework of social capital in First Nations communities derived from the concept analysis and the qualitative study. It then illustrates these ideas in the context of the three First Nations communities that participated in the study, describing current community features that could be considered as descriptors of higher or lower stocks of social capital. The article finishes by discussing examples of plausible links between social capital and health, as well as policy implications.

Keywords: Social capital, First Nations communities, Aboriginal communities

INTRODUCTION

The field of social epidemiology presents two types of explanations for variations in health among different communities. Compositional explanations assume that areas include different types of individuals, and differences between these individuals would account for the observed difference between places. On the other hand, contextual explanations would consider that there are features of the social or physical environment that influence the health of those exposed to it (either in addition to or in interaction with individual characteristics). This results in the key distinction between individual level determinants and ecological level determinants of health. There are a variety of possible ecological level descriptors of these factors. Social capital is one of these descriptors. It is an elusive concept that appears bifurcated between a rich theory tradition with limited empirical testing and an extensive empirical tradition without clear conceptual foundations underlying its measurement. The present study resulted from the need to characterize and measure social capital in First Nations communities, for subsequent theorization and empirical testing of its potential as a health determinant, as proposed by the

research program of the Assembly of Manitoba Chiefs¹ and the Centre for Aboriginal Health Research.

The study consisted of two phases with distinct methodologies. The first phase of the study used qualitative methodology to contribute to the development of the conceptual framework specific to First Nations communities, and to generate an initial list of instrument items. The second phase of the study administered a draft questionnaire and conducted psychometric analyses to determine evidence for reliability and construct validity. The present article reports on findings of the first phase (see Mignone 2003). First, we detail the conceptual framework of social capital in First Nations communities derived from the concept analysis and the qualitative study. These ideas are then developed in the context of the three First Nations communities that participated in the study, illustrating current community features that could be considered as descriptors of higher or lower stocks of social capital. In the discussion section we give examples of plausible links between social capital and health. This will give the reader a more concrete understanding of what would constitute social capital in First Nations communities. Few studies on social capital have actually taken the step emphasized by Nunnally and Bernstein (1994), "that an investigator at least be able to describe the properties of the attribute that is to be measured."

METHODS

This phase of the study was a concept analysis of social capital and used ethnographic methods to contribute to the development of the conceptual framework specific to First Nations communities.

CONCEPT ANALYSIS

An extensive and in-depth review of the literature on social capital was first completed. Both main and secondary authors were examined, common and distinct formulations of the concept were analyzed, concluding with a trajectory of the ideas embedded in these authors' thinking of social capital. Related concepts were compared to determine commonalities and distinctions with social capital. Finally, the concept analysis enabled the initial formulation of a conceptual framework.

1 The Assembly of Manitoba Chiefs was created in 1988 by First Nations in Manitoba to coordinate political action and technical work on common issues. It represents the 63 First Nations communities of the province of Manitoba.

ETHNOGRAPHIC STUDY

The research protocol was first approved by the Health Information and Research Committee (HIR) of the Assembly of Manitoba Chiefs, and by the University of Manitoba's Research Ethics Board on Human Subjects. Once this approval process was completed, the HIR Committee extended an invitation to the 63 First Nations communities in Manitoba to participate in the study. Seven communities volunteered to participate, of which three were chosen by majority vote of the HIR Committee: Community A, Community B, Community C.² The decision was based on research criteria and best judgment of committee members. The three communities conformed to the expectation of having different criteria of size, geographic regions, economic development, and cultural representation. Community A is an Ojibway/Dakota community, located close to a small city. This community was signatory of Treaty 1 in 1871, together with several other Ojibway and Cree bands of south central Manitoba. The current on-reserve population is 1,602 with an estimated 1,163 band members living off-reserve. Community B is a Cree community located towards the centre of the province of Manitoba. Signatory of Treaty 5 in 1875, the current on-reserve population is 4,065, with an off-reserve population of 1,455. It is considered a semi-isolated community, is connected via highway with major cities, and has a public-use airport. Community C is a Cree community located approximately 500 kilometres from the closest city, and is accessible overland by rail that passes at some distance from the community. It has a public-use airport. After freeze-up, a winter road is plowed across lake surfaces and over land portages leading to a small city. This community is considered an isolated community. In 1908 it adhered to Treaty 5. Its on-reserve population is 1,891, and off-reserve 761.

One research assistant from each community was hired and trained to assist the main researcher with the ethnographic phase of the study. Fieldwork took place for an average of three weeks in each of the three communities. Primary data collection techniques involved a combination of in-depth interviews, informal focus groups, participant observation,³ unobtrusive observations, and the review of written documents. The selection of key individual and group informants, of areas for participant observation and selection of written documentation was done jointly between the community

2 Given the developmental nature of the study, the HIR Committee considered it best to keep the communities anonymous for the purpose of dissemination.

3 This includes numerous informal conversations with community members that were not tabulated as interviews.

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research assistant and the main researcher. Interviewees were identified by key contacts and through “snowball” techniques. Criteria to ensure saturation across relevant cultural, political, economic, age, and gender categories were followed. The total number of interviewees, counting both individual interviewees and focus group participants, reached 89 for the three communities, with 49 females and 40 males and an age range of 19 the youngest and slightly over 80 the oldest. The breakdown by community, age category, and sex was the following.

	Sex		Age Category				Total by Community
	F	M	18-29	30-44	45-59	>60	
Community A	22	18	7	11	10	12	40
Community B	11	12	3	8	7	5	23
Community C	16	10	3	11	8	4	26
Total	49	40	13	30	25	21	89

Interviews and informal focus groups involved broad and specific questions, mostly open ended, and were held in a conversational style. They focused on a wide variety of aspects of community life. Some questions were common to most of the interviews, and some were specific to interviewees' direct experience. Some interviews required language interpretation, which was provided by the community research assistant. Consent forms were obtained. Interviews and meetings were audio taped, although recording was conditional to issues of comfort and trust. Three quarters of the interviews were audio taped. All tapes were transcribed verbatim. For the remaining quarter of interviewees who refused to be taped, notes were taken during the interview and transcribed to a word processor the same day to facilitate the recall of information that may not have been captured in initial notes. The main researcher kept a field note diary that incorporated participant observation information. Written documentation was reviewed during fieldwork, and, when possible, copies of the material were obtained for later examination.

As much as possible, the analysis of the data was started during the time of the fieldwork, to improve, as part of an iterative process, the data collection effort. However, the more refined analysis was done after the fieldwork was completed. Themes, terms, and phrases were compared and integrated with the tentative conceptual framework. The researchers used the

guiding of the preliminary framework, product of the concept analysis, to suggest several categories that could serve to initially code the data. The analysis identified major themes/domains from observations, notes, and transcriptions through the coding system that ranked for logical relevance to the framework. As evidence emerged from the analysis, framework modifications were made. Inductive processes guided the adjustment and refinement of the framework, resulting in its use for measurement. The analysis was completed when the critical categories were defined, the relationships among them were established, and integrated into a grounded framework. A narrative was then created that sought to describe the attributes of social capital dimensions, components, and descriptors as exemplified by the communities in the study. Simultaneously, words and phrases for each of the identified themes were generated from the data for use in questionnaire item generation.

Several aspects of the study process helped to ensure a good level of trustworthiness of results. The entire study was conducted in true partnership, where key decisions concerning staffing, recruitment, and conduct of field interviews were ultimately in the hands of the HIR committee and each participant community. This fact, added to the central involvement in the study of community research assistants, was key in developing rapport, building relationships, and obtaining a wide scope of data. Triangulation methods were used to verify data.⁴ Finally, continuous formal and informal checking of data with stakeholders and community research assistants was conducted to check categories, interpretations, and conclusions.

FIRST NATIONS COMMUNITIES' SOCIAL CAPITAL FRAMEWORK

An analysis of the literature concluded that social capital, to the point that it is a property of the social environment, takes the format of a rela-

4 These methods were of two types, information from one source (e.g., interviewee) was validated by at least one other source (e.g., a second interviewee), or information gathered by one method (e.g., interview) was validated by another method (e.g., observation). Because most of the information was gathered via individual interviews and focus groups, the former type of triangulation was the most frequently used. The criteria were the following: information that resulted in changes (or verification) to the framework had to come from at least three independent sources; information that resulted in questionnaire items had to come from at least two different sources; information that was used to create the narrative had to have been provided within the same community by at least two independent sources. These were the minimum criteria. With the exception of the narrative, decisions were usually made based on well exceeding the minimum criteria. Also, whenever possible, information collected via observations and written documentation was used to corroborate conclusions.

tional resource. Among the main authors reviewed were Coleman (1988), Bourdieu and Wacquant (1992), Bourdieu (1983), Loury (1992), Putnam et al. (1993) Putnam (2000), Woolcock (1998a, 1998b, 2001), Woolcock and Narayan (2000), Narayan (1999), Schuller et al. (2000), and Lin (2001). This review suggested that social capital is a resource composed of a variety of elements, most notably social networks, social norms and values, trust, and shared resources. Its function(s) appear(s) related to the enabling of some societal good within the boundary of that specific societal level. A more in-depth analysis of the trajectory of the concept and its different interpretations was then performed. It concluded that social capital can be considered explicitly as an aggregate feature, and that it can aid in the characterization of a social system. Social capital relates to actual or potential resources within a social structure that collectively supports each of its members, and that it is linked to the possession of a durable network of relationships of mutual acquaintance and recognition (Bourdieu 1983). Finally, social capital better captures the reality of communities if it is understood as multi-dimensional. Woolcock and Narayan's (2000) formulation of social capital as constituted by three dimensions — bonding, bridging, and linkage — presented the best notion to be examined via the qualitative study.

Based on a thematic analysis of the qualitative study, our understanding of social capital in First Nations communities retained its three-dimensional structure (bonding, bridging, and linkage). Further conceptual analysis of the literature combined with qualitative examination of concepts produced a model that included three mutually dependent components within each dimension: socially invested resources, culture, and social networks. This model considers social capital as a feature of communities, with the caveat that the community of which it is a feature must be clearly delimited. This study centred its understanding of First Nations communities as those delimited by the political unity of a reserve, but including all inhabitants, both band members and non-band members. In this sense they can be considered communities of identity and place. This definition does not exclude those living off reserve, but considers them part of the community through their connections with on-reserve community members.

Bonding social capital refers to within community relations. It addresses the networks, culture, and socially invested resources inside the particular community, the intra-community ties. Bridging social capital is essentially a horizontal metaphor, implying connections between communities, the inter-community ties. Linkage social capital refers to a vertical dimension. In the

words of Woolcock (2001) “[T]he capacity to leverage resources, ideas, and information from formal institutions beyond the community.” Specifically to our study, bonding social capital refers to relations within each First Nations community. Bridging refers to horizontal links with other communities, be they First Nations communities, or other communities of place (e.g., urban centres). Linkage refers to connections between a particular First Nation and institutions like federal/provincial government departments and public/private corporations (e.g., Manitoba Hydro, banks).

Table 1 summarizes the social capital framework, showing each dimension as consisting of the three components and their descriptors. For socially invested resources the descriptors are physical, symbolic, financial, human or natural. The central notion is that these resources be socially invested, i.e., that they be potentially accessed by, or of potential future benefit to, any member of the specific community. Each descriptor captures the resource investment at that specific stage of being a resource. Physical refers to tangible resources produced by human beings. Symbolic refers to resources that pertain to the identity of the community as such, and for the most part are intangible. Financial are monetary resources. Human resources mean human capacity as a product of formal and informal education. Natural resources are those provided by nature, shaped with or without human intervention. Resources are essentially mutable; for example, a financial resource becomes a physical resource when money is used to build houses, or a human resource becomes a financial resource when income is earned due to an education degree. Consequently, these five descriptors seek to capture the different facets of socially invested resources at a given point in time.

Culture⁵ encompasses notions of trust, norms of reciprocity, collective action, and participation. Trust is self-explanatory in that it means that community members trust one another as well as community leaders. Existence of norms of reciprocity, although it could be considered a neutral notion, conveys for this framework the idea that the reciprocity is of a positive nature. Collective action reflects the idea that community members may pursue

5 The use of the term “Culture” in this study has generated considerable discussion among our First Nations partners who have expressed concern that “culture” has a particular meaning in the context of First Nations traditions and world views. In the social sciences there is a long history of using the culture concept to refer to shared values, norms, and beliefs, and it is this more general understanding that has informed this analysis of social capital. “Culture” as a component of social capital refers to values and norms of trust, reciprocity, and collective action. Values related to aspects of First Nations culture such as spirituality are not included in this definition. Similarly, culture in this paper does not refer to the idea that there are many First Nations “cultures” that have unique traditions and practices.

Table 1. Social Capital Framework

<i>Bonding</i>		
<i>SIR*</i>	<i>Culture</i>	<i>Networks</i>
Physical	Trust	Inclusive
Symbolic	Norms of Reciprocity	Flexible
Financial	Collective Action	Diverse
Human	Participation	
Natural		
<i>SIR* = Socially Invested Resources</i>		
<i>Bridging</i>		
<i>SIR*</i>	<i>Culture</i>	<i>Networks</i>
Physical	Trust	Inclusive
Symbolic	Norms of Reciprocity	Flexible
Financial	Collective Action	Diverse
Human	Participation	
Natural		
<i>SIR* = Socially Invested Resources</i>		
<i>Linkage</i>		
<i>SIR*</i>	<i>Culture</i>	<i>Networks</i>
Physical	Trust	Inclusive
Symbolic	Norms of Reciprocity	Flexible
Financial	Collective Action	Diverse
Human	Participation	
Natural		
<i>SIR* = Socially Invested Resources</i>		

actions that benefit the collective. Finally, a culture of participation implies the willingness of community members to be involved with others in common activities. Participation is distinct from collective action in that it has no explicit purpose of a collective good.

Networks are understood as “structures of recurrent transactions” (Aldrich 1982), and are described according to their diversity, inclusiveness, and flexibility. Higher degrees of these three characteristics would imply higher levels of social capital. Inclusiveness of networks refers to the notion that these structures of interactions are relatively open to the possibility of newcomers and to the exchange of information with newcomers. While there is room for subgroups with high levels of interaction (e.g., communities of interest within a community of place), communities require the existence of di-

verse networks for higher levels of social capital of the community as a whole. Diversity implies the co-existence of networks that differ from one another, composed of distinct elements or qualities, but that are capable of interacting in a meaningful way. Flexibility of networks implies a ready capability to adapt to new, different, or changing requirements. Inclusiveness, diversity, and flexibility are actually interrelated qualities. They are different aspects of a same phenomenon. In general, a correlation among these three descriptors of networks should be expected.

In summary, social capital would be assessed by the combination of its three dimensions and each dimension by the combination of each compon-

ent. This brings us to the operational definition of social capital derived from the study: *Social capital characterizes a First Nation community based on the degree that its resources are socially invested, that it presents a culture of trust, norms of reciprocity, collective action, and participation, and that it possesses inclusive, flexible, and diverse networks. Social capital of a community is assessed through a combination of its bonding (within group relations), bridging (inter-community ties), and linkage (relations with formal institutions) dimensions.*

ILLUSTRATIVE DESCRIPTION OF SOCIAL CAPITAL

Having outlined the dimensions and components of social capital, this section will develop these ideas in the context of the three First Nations communities that participated in the study. Table 1 presents the structure for the presentation that follows.

BONDING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: PHYSICAL

A consistent example of a *socially invested physical resource* across the three communities was band investment in roads. Community A interviewees identified that better road development⁶ within the community would increase accessibility for students to classes during periods of bad weather. Significant physical resource investment in the last five years is illustrated by Community B's construction of a series of buildings for public use. Among them are the new band administration building, a shopping mall, a community health centre, and Child and Family Services offices. As well, a new school building is under construction. An important feature of this structure, from the social capital point of view, is that it will include several gymnasiums and a theatre that will be accessible to any community group. An example of a decrease in the degree of these resources being socially invested would be school authorities denying access to the general public for after-hours activities (which apparently had occurred several years ago with one of their schools). In a similar vein, a consistent theme that emerged in interviews was that priorities for housing may be based on favouritism. If this were to be the case, the degree of social investment would be lower because of differential access to housing that is not based on fair assessments of need. Community C recently set up internet access through the school and organized "internet nights" three days a week in the evening for anyone in

6 When, in cases like this, part of the funding may have come from external institutional funding sources, there is an overlap with linkage socially invested resources.

the community to participate. This illustrates well a *socially invested physical resource*.

BONDING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: SYMBOLIC

For First Nations communities, Aboriginal culture and language appear to be central themes of this resource. Cultural camps for children and youth organized by Community C illustrate well an investment in symbolic resources. As an interviewee explained, in these camps:

[T]hey'd show the kids how to snare, trap beaver, skin beaver, rats, muskrats, moose...and they would always talk Cree...they would make bannock over the fire...get water in the ice...you know, what the people used to do a long time ago that's what they did with the kids.

Another positive example would be the incorporation of a Native studies program from kindergarten to high school in Community C, that seeks to increase the exposure to Cree cultural traditions, including Cree language. In Community B there has been an increased development in recent years of

...our own culture in relation to sweat lodges, ceremonies, etc., and that has played a part in the healing journeys of many people in this community...

In Community C and Community B the band offices run radio stations with extensive programming in Cree.

BONDING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: FINANCIAL

An expression of this descriptor would be that the financial capital of the community be invested in a way that provides accessibility for community projects or development initiatives of community groups. Community B exemplified this well with the creation of a Trust Fund. This Trust "manages and protects the Settlement Proceeds (Flood Agreement, etc.)...for Community B and members." The Trust "gives the Band Membership the authority to decide at the Community Approval Process public meetings which projects and programs should be funded." The Implementation Agreement that established the Trust determined a "minimum capital amount" required to be

in Trust at the end of each fiscal year, thus guaranteeing that the Trust will “exist to future years.” On the other hand an interviewee from Community A described what could be negative *financial socially invested resources*.

Right now I think we make [thousands of dollars] annually on leasing the land...all that money they give it to individuals, imagine that money if they were to put that into a pot for some kind of employment or [economic] spin-offs.

BONDING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: HUMAN

All three communities presented examples of social investments in human resources. Community A has a post-secondary education program that sponsors students. Community B sponsors a number of activities like minor hockey, recreational community league hockey, junior hockey league, curling, volleyball, gym nights. Community A has baseball and hockey teams for children, but according to some community members, kids with lower resources do not participate. Having these teams can be understood as *socially invested resources*, but the fact that they do not appear to be equally accessible suggests that these resources are limited in how socially invested they are. A similar comment was made in Community B in relation to hockey opportunities for children. Community B has summer employment programs for students, as well as job training programs for adults. Community C has a drop-in centre for children and youth funded by the band. However, there is very little that appears to exist in terms of organized recreational activities and youth programming in general. Many interviewees considered this as a major deficit.

BONDING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: NATURAL

The use by Community A of land claim funds to buy land, thus increasing the community's access to natural resources, can be seen as an example of increased *natural socially invested resources*. This would help compensate for the considerable loss of natural resources experienced by the community, “the bush” that was

bulldozed...in the 50's...no wild life [anymore], [no] rabbit and deer and duck...all the wild game is gone.

Some individuals in Community C have been working on the idea of starting an eco-tourism business. A requirement for the success of this business opportunity would be the existence of different types of investments for the preservation of the land, forest, waters, and wildlife (opportunity costs due to this preservation should also be computed as investment). Management of trap lines and of fishing programs in Community B by the Trappers Association and the Fishermen's Co-op demonstrated responsible management of natural resources, thus preserving it as a social investment.

BONDING SOCIAL CAPITAL: CULTURE: TRUST

An interviewee from Community B provided a clear example of *trust*.

...you can go down this hallway and say I really need 10 or 20 dollars...I would get that \$20 just like that...no strings attached...I'll pay you two weeks from now...yes, fine. I need a ride, my car wouldn't start, can you drive me to the garage?

In Community C several interviewees commented that trust occurred within small groups.

I trust people, but I will open to a certain extent. I don't see that in all people. A lot of people don't trust, especially when they have issues of sexual abuse and domestic violence.

In the three communities there were comments that conveyed both trust and mistrust in Chief and Council. The following quote illustrates the latter:

And we have doctored minutes and these are public records...it's the fundamental breach of trust that's occurring that affects our mentality.

On the other hand, this comment from a Community B interviewee describes trust in the community's leadership:

...Chief and Council administration, they support people's ideas....

BONDING SOCIAL CAPITAL: CULTURE: NORMS OF RECIPROCITY

An illustration of what *norms of reciprocity* means comes from the following comment from Community B:

There are norms in our community where people do things for other people. It's not written down in stone anywhere, it's just part of the culture. If someone is building a house and says, I need a screw-gun, yeah I have a box, go to my shed and get it. And that person later, the one who loaned the thing may say, I need to borrow an axe of him, and goes back to the guy that borrowed from him. It's sort of a trade, no money passes through the hands, but the good deed is returned in another way...and it may not happen within the year or a week, it can happen 10 years later.

A more generic expression of *norms of reciprocity* is what one interviewee from Community A described as having existed in the past and that appears to have been lost,

...we've become very individual thinking...we forgot how to be a community...how to be a brother and a sister.

The relations between generations repeatedly appeared as a significant topic in terms of *norms of reciprocity*. A common norm that was mentioned in different interviews in Community B and Community C was the sharing of wild meat and fish with elders, widows, and neighbours. An interviewee from Community B saying that "today you can't leave even your ski-do sitting outside, somebody will steal it or they smash it" could also be an expression of lack of *norms of reciprocity* in the positive sense.

BONDING SOCIAL CAPITAL: CULTURE: COLLECTIVE ACTION

Collective action could easily be confused with *participation*, the difference being that *participation* does not necessarily imply the idea of being involved for the purpose of achieving some collective goal. The following comments from Community A reflect this notion:

I've seen Community A work together as a community...that promotes community wellness when you can achieve things that give you hope.

Another community member lamented a perceived loss of a spirit of *collective action*:

At harvest time they got together...they helped each other...all the women would gather and make our meals for all...that's right everybody helped everybody...nobody helps anybody today...unless you do it for a buck or whatever.

An interviewee from this community commented on what could be seen as an indicator of *collective action*:

Well one thing I like about Community A is if a Chief isn't doing too good we get him out of there...like I see other reserves protesting at Indian Affairs picketing, Community A doesn't really have to picket they'll vote their Chief out.

In Community B an interviewee expressed the idea of *collective action* as "people having a vision here, wanting to better their community, make a difference..." A concrete example of *collective action* given by several interviewees was the protest that enabled Community C to get funding for more housing several years ago. A community group marched in protest to Winnipeg and camped at a public place in the city for weeks, until the funding was obtained.

BONDING SOCIAL CAPITAL: CULTURE: PARTICIPATION

Willingness to participate and actual participation of community members in community activities, essentially on a volunteer basis, is the main focus of this descriptor. For example, Community A created an Election Act Task Force that is working on reforming the election act. It held several community workshops for consultation, and was expected to hold a referendum on the new act. Attendance to the workshops would reflect levels of *participation*, as well as voting rates in the referendum. For these two examples to be considered as *collective action* would require the involvement of people for the purpose of a collective goal. On the other hand *participation* implies that the individuals were participating without any collective goal in mind. The following comment suggests a low level of *participation* in Community A:

It's hard to get people to volunteer, at least in some work areas, maybe the Health Centre has a group of volunteers.

We tried to form a Justice Committee but they all wanted to be paid.

Another interviewee from this community lamented that “

it would be really good to see more activities organized and more parents participating in the activities with their children.

Community B prides itself for the many community volunteers it has during Pow Wows and Festival days. As well there are people that sit on committees and work through the year, like the Pow Wow committee and the Bingo committee.

BONDING SOCIAL CAPITAL: NETWORKS: INCLUSIVE

Networks are information channels, and the way job opportunity information is handled is a visible marker of *inclusiveness* or exclusiveness of networks. Community B apparently has a good employment program together with an open system for advertising job opportunities. This would speak of *inclusiveness*. However, according to some community members exclusiveness persists, “some people have several job opportunities while others do not have any.” Even with volunteerism, there was a complaint about lack of inclusiveness.

I know when you go and ask ‘do you need volunteers?’ they say no, we already have volunteers, and when you see that stuff happening they don’t have anybody.

Lack of *inclusiveness* would be suggested by certain groups not acknowledging other groups, as conveyed in the following quote from a Community A interviewee.

The smaller families...really have lost their voice already... what they call a lion’s share of everything... [are for] the bigger families.

Sometimes the exclusivity of networks might have a generational character.

[I]t feels like the youth [are] the forgotten ones like the elders... I don’t think they’re made to feel welcome or what-

ever... the young, it's like there isn't an effort to bring them in.

A comment from Community C offers an interesting illustration of a possible lack of *inclusiveness* based on religious lines.

[T]here's no tolerance for the different kinds of religions they have now... it's going to be apart like the Roman Catholics play on this side and those on this side....

Contrarily, Community B offers an expression of increased *inclusiveness* through interdenominational prayer meetings held every Monday, where the different religious groups in Community B get together. According to community members, this seems to have decreased existing conflicts between the different groups. Expressions of networks' *inclusiveness* could be the degree that different community groups or families interact, or lack of *inclusiveness* when certain groups or families are shut out from having their concerns acknowledged. Cross-generational networks could also be an important marker of inclusiveness or lack of thereof.

BONDING SOCIAL CAPITAL: NETWORKS: FLEXIBLE

Flexible networks imply that people from a community network are willing and able to establish new networks or incorporate over time new structures of interaction. Families not interacting with other families because of old disputes would be a good example of inflexible networks. This is illustrated by a comment from Community A.

You hear a lot of animosities that are carried forward from years back... I've also heard so and so and his family did so and so to this family and so we are not talking to so and so. There is a lot that is carried on for quite a few years.

The following quote from the same community expresses lack of *flexible networks* in relation to work opportunities.

Yes, it's like a class system, because it's always the same people that are recycled for different jobs.

Lack of flexibility can be seen with networks between families, as this interviewee from Community C observes.

Well, they are in their own little groups...like there's not the widespread visiting like there used to be and I see a lot of families sticking really close in their family grouping...just your family, you have no other outside interests.

BONDING SOCIAL CAPITAL: NETWORKS: DIVERSE

Interaction of *diverse networks* is the main marker for this descriptor. As an example, a monthly newspaper now being published by Community A has the potential to increase communication between *diverse networks* within the community. Another illustration of possible increase in diversity was suggested by an interviewee from Community A.

[M]ore elders coming to the school...having more one on ones with the elders...kind of like big brothers and sisters....

Elders tend to be part of a common network in Community A, but the interaction with other generational networks appears somewhat limited. This lack of interaction between *diverse networks* is illustrated by the following comment from the same community:

It's easier for [community members] to hang out with someone in the same situation...like you know in society outside reserves, the poor, the middle class, and the wealthy...well on a reserve there is no middle, it's either you have a good job or you're in poverty....

BRIDGING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: PHYSICAL

Community C is not accessible via an all-season road. There is a lobbying effort to have this road built. However, if this lobbying were to occur together with other communities that might also benefit, as well as with support from First Nations organizations, it would be an expression of *socially invested bridging physical resources*. Housing is also a common problem for the three communities in this study. The more collaboration there is among communities and with organizations like the Assembly of Manitoba Chiefs and/or Tribal Councils to improve on this situation, the more it would be an expression of this component of social capital. Existing cooperation between

Community A and a nearby urban centre to improve health care access also illustrates this category.

BRIDGING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: SYMBOLIC

Community A held a cultural camp for a week that brought in 30 elders from numerous First Nations communities from across Canada. This is a good illustration of *bridging symbolic socially invested resources*. The *bridging* dimension is exemplified by the fact that these elders came from other First Nations communities. The purpose of the camp was to provide access to traditional teachings, as well as to revitalize traditional practices like sweats, etc. Similarly, a group of adults from Community B spent a number of years being educated in traditional ways. They participated in many ceremonies in other communities and learned from elders from other communities (both from Canada and the United States). In Community C,

...an elder from Ontario comes for culturally appropriate healing and traditional culture. There is an evening on traditional healings.

As well, "medicine men and traditional healers" are brought to the community to teach. The collaboration of the Manitoba Association of Native Languages with Community A to get more people to learn to speak Ojibway is another example. Community B's Festival Days are held in collaboration with neighbouring communities. As well, Community A's annual Pow-Wow brings together participants from a large number of First Nations communities, even from out of province and the United States, as well as people from towns and cities.

BRIDGING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: FINANCIAL

Access to credit from Tribal Councils or First Nation's credit unions or Trusts, would be an expression of *financial socially invested resources*. Peace Hills Trust and the Median Credit Union are specific examples, because they are financial institutions owned by First Nations. It reflects the *bridging* dimension because it is an institutionalized form of cooperation among First Nations. Financial partnerships between First Nations or through First Nations organizations would also provide some evidence of this component.

BRIDGING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: HUMAN

Community A has benefited from its contact with the Manitoba First Nations Education Resource Centre, "because they come right out to the communities and talk." As well, Community A community members have access to the Adult Education program at the Community A Training Centre and an Education Co-operative for at-risk students. They are for tribal members and non-band members that reside in a nearby urban centre and Community A. The Tribal Council to which Community A belongs sponsors students for post-secondary education. As well, some post-secondary students are able to get into low rental housing through the Tribal Council Housing Authority. Community A nonetheless presents a negative example of *bridging human socially invested resources*, as illustrated by the following comment.

I know that in [nearby urban centre], through their Baby First program they have parenting [workshops]...it would be nice if we could network... 'cause... we can't access it.

Health programs of different Tribal Councils, to which Community A and Community C belong, are positive examples of *bridging human socially invested resources*. An interviewee from the latter community did illustrate however, what could constitute lower bridging social capital, indicating that it took four years for the prenatal nutrition program to finally receive the funds it was entitled to from the Tribal Council.

BRIDGING SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: NATURAL

A clear example of *bridging natural socially invested resources* is the existence of a Natural Resources Secretariat within First Nations organizations in Manitoba that represents 27 communities, to which Community B and C belong. One of the main purposes of this Secretariat is to represent the interests of its membership in land and natural resource use and protection. A particular illustration is the assistance provided by this First Nations organization to Community C in conducting traditional land use and traditional knowledge research and mapping, as well as supporting outstanding claims related to the environmental impact of hydroelectric development.

BRIDGING SOCIAL CAPITAL: CULTURE: TRUST

The openness between First Nations communities in terms of exchanging knowledge and experience in dealing with common issues is an expression of *trust*. Community A band administrators have been for the most part successful in learning from some initiatives of other First Nations communities.

[O]ther [First Nations] communities, they are very open, but depending upon what issues it is...

Apparently there were some instances in which the trust was not there. One issue that emerged from the interviews closely linked to the experience of trust between First Nations community members and people from nearby towns or cities was the experience of racism. The following comment from Community A describes this experience.

Some of that maybe is the fear of being discriminated, like racially, like if you go to [nearby small urban centre], am I going to be accepted? Am I going to be hurt, you know, emotionally. I think that is a big fear... it would be good to have some positive interaction.

Another aspect of *trust* to consider is the confidence community members put in organizations like Tribal Councils or the Assembly of Manitoba Chiefs.

BRIDGING SOCIAL CAPITAL: CULTURE: NORMS OF RECIPROCITY

In a broad sense, these refer to similar *norms of reciprocity* as in the *bonding* dimension, the difference being that in the *bridging* dimension they are in relation to people outside the community, from other First Nations communities or from towns or cities. An expression of this would be how community people experience their relations with people from urban centres. Experiences of racism could have shaped certain patterns of reciprocity. As one community member from Community A expressed, "the expectations are different when you move from a reserve to an urban area." Expectations of reciprocity between people from different First Nations communities are of importance. Sometimes these can take negative connotations, as was the case between young people from Community B and a nearby First Nation

community where rivalry was high, resulting several times in mutual acts of aggression. Also, an important aspect of *bridging norms of reciprocity* are the relations between band administrations among different communities, that can be collaborative or conflictive. *Norms of reciprocity* within our framework would imply the existence of reciprocal norms of collaboration between communities.

BRIDGING SOCIAL CAPITAL: CULTURE: COLLECTIVE ACTION

The following example about Child and Family Services from Community B exemplifies *bridging collective action*.

What's happening now is that the Chiefs, the Assembly of Manitoba Chiefs and MKO [a regional organization] are working with the provincial government and federal government on bilateral agreements [and with]... Child and Family Services....

By their very nature, organizations like the Assembly of Manitoba Chiefs and Tribal Councils are institutional forms of *collective action*. *Collective action* can also be seen when two communities work together to confront certain common issues like environmental damage, substance abuse, economic development, etc. The act of communication between communities around common issues can be an aspect of *collective action*, as expressed by this comment from Community B.

[W]hen there's a protest going on like some of the Native leaders will send to all Chiefs and Councils for support... usually when something like that happens... some high profile person is going to go from here... so there's support.

BRIDGING SOCIAL CAPITAL: CULTURE: PARTICIPATION

The presence of people from neighbouring cities or towns in events organized by Community A, like its annual Pow-Wow, is a good marker of *bridging participation*.

There are some people from [nearby small urban centre] that visit, like that have friends. You see a fair number of people from [nearby small urban centre] out at the Pow-Wow... we

have been trying to advertise it as a unique opportunity to come and see the culture....

A lack of *bridging participation* is expressed in this comment from an interviewee.

...a lot of our people can't see beyond the boundaries of Community A....

This implies that there can be a large segment of the community that does not participate in activities with other First Nations community members or people from the nearby city. A clear example of bridging participation comes from Community B.

[E]ven people from out of town, as far away as from the United States, e.g., professional paddlers, come to participate during Festival Days and Pow Pows.

BRIDGING SOCIAL CAPITAL: NETWORKS: INCLUSIVE

Inclusive bridging networks involve the existence of structured interactions between the First Nation community members and nearby town or city residents. Lack of *inclusiveness* would be seen if these *networks* are almost exclusively among Aboriginal people, which could indicate lack of access to connections with non-Aboriginals. Obstacles to the access of certain information (e.g., job opportunities) could be an example of lack of inclusiveness. Similarly, the lack of *inclusiveness* could be seen if a particular First Nation appears to be "out of the loop" (as described by a Community C interviewee) of important information from its Tribal Council or other First Nations organizations. Awareness of what happens in other First Nations communities, would demonstrate inclusiveness in the connections between these communities.

BRIDGING SOCIAL CAPITAL: NETWORKS: FLEXIBLE

A woman from [nearby small urban centre] is part of a mentorship program this year and she is currently mentoring a high school student from Community A...so I'm going to bring her to Toastmasters...I'm actually taking her to this Credit Union because I belong to the Credit Union board of directors.

This is a specific example of *flexible bridging networking*, because it implies the creation of new potential networks quite different from more traditional ones for a Community A youth. The following quote could be a description of lack of flexibility of networks in Community A:

I've heard comments 'oh they left and they are gone' and it is seen as a negative...like you moved to Alberta you are not really a part of us anymore. Even though that person maybe has very strong ties to their family...but...they want you here, you have to be here to be part of Community A.

The possibility of establishing new acquaintances outside the community is an expression of *flexibility of networks*. On the other hand, long-term re-entrenchment with people from other communities could signify the opposite.

BRIDGING SOCIAL CAPITAL: NETWORKS: DIVERSE

A good example of *diversity* is the following from Community A, where band administration staff is able to seek advice from diverse communities:

Like [a nearby First Nation community]...we went down there and saw their finances...the way they did their operating...then we went to [another First Nation community]...about their radio station...and we've compared notes with [a third First Nation community] on organizational issues.

An example of lack of *diversity* could be what some students face when going to the city to study, when

...they don't have the support systems in place, in the urban areas...they don't have the relatives there which is usually the support system on the reserve.

According to several interviewees Community B appears to access *diverse networks* that are useful for their agencies' staff.

[W]e [frequently] go to workshops with other communities, where we network.

Diversity could also be related to frequency of contacts with one community, like the case of Community B and a neighbouring community:

... we're in contact with [a particular First Nation community] people a lot.

Simultaneously, diversity could imply contacts with specific people from diverse communities. Such is the case when Community B community members connected with others on traditional practices,

[We go to] Alberta ... South Dakota, North Dakota, Montana and all the way down there visiting communities but most of the time go out there to do ceremonies so it brings people together. Brings out that Native pride I guess. Aboriginal togetherness all over the place we go around and do that.

LINKAGE SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: PHYSICAL

An example from Community A of *physical socially invested resources* of the *linkage* dimension is the construction of their health centre and the paving of the highway. It is *linkage* because capital resources for these investments were essentially a product of the relationship with federal and provincial government departments. A negative example from Community B is Indian Affairs' reluctance to increase allocation per unit for housing.

[T]here is a fixed amount for housing [capital funds] that is allocated from the Federal Government.

The relatively recent installment of a water treatment plant in Community C is another positive example.

LINKAGE SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: SYMBOLIC

A historical view helps understand the nature of *symbolic socially invested resources* within the *linkage* dimension. For example, residential schools could be seen as a disinvestment in *linkage* social capital, as the following dialogue from Community A demonstrates:

My older sister never spoke [Dakota], she could never speak...my mother could understand and I could understand a little...but when we were going to school you more or less spoke English first...when the kids spoke [their language] in regular residential school they got punished for it and so she wanted us four to speak English...so I learned English in the public school, my Dakota was totally lost....

A Community B elder states the importance of this investment.

I guess the thing we need to look at is to get our identity back, and that's the language, customs, traditions...the government should encourage to go after our own languages, because it is God given.

A positive example is the following from Community C.

[B]efore the Cree language program started it was through volunteer work...after that Indian Affairs gradually took over...so that's when payroll started coming...and it's now recognized as the programs that you have to take to get credits.

The above examples show the powerful impact (negative and positive) on *symbolic socially invested resources* of external institutional links.

LINKAGE SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: FINANCIAL

An informant from Community A provided this observation on the relationship with banks suggesting problems in this dimension.

[W]ith the majority of Native people I think it's either you have poor credit, no credit or bankrupt...and because of that a lot of band members have limited access or no access to funding to start their own businesses.

Also, band administration credit ratings are an example. As was pointed out in Community C:

Well... we weren't conquered, that's why these treaties were made... [and] we also have the opportunity that the government has provided extra ways we can help ourselves... but what's happening is a lot of communities are taking that help and that money but they are not using it to better themselves.

In other words, this money is not being socially invested.

LINKAGE SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: HUMAN

The linkage with external institutions is particularly relevant for *human socially invested resources* that relate to formal education. A positive example mentioned in Community A is the training offered through the Access Program of the University of Winnipeg and the University of Manitoba. Similarly, Community B has a "First Nations Family Justice" program. This is a mediation program running on a peace-making model, funded through the province and the federal government, and channelled through a provincial First Nations organization into Child and Family Services. Lack of adequate health care access, as mentioned in some Community B interviews, would suggest a negative investment.

[T]here are problems with the dialysis machine unit...it stopped because of lack of funding for personnel.

Another example that was brought up by an interviewee from Community C was the issue of nutrition.

Nutrition, the school would need federally funded snacks. There are lots of starches and sugars in the food kids normally eat at home [or subsidies for healthy food would be needed]...Health Authority speaks of a diabetes epidemic...we need nutrition programs in the school, so we can start when they are young....

The above quotes illustrate how relevant are the links with government departments to the increase or decrease of stocks of *human socially invested resources*.

LINKAGE SOCIAL CAPITAL: SOCIALLY INVESTED RESOURCES: NATURAL

An interviewee from Community B describes the loss of this investment as follows:

The other thing that needs to happen is to preserve our environment. Not to have it dictated by Manitoba Hydro, Manitoba Government.

A negative investment was mentioned in Community C.

Yes, it was blue like [the water], [now] in the summer time you see a lot of those bubbly things like when you're doing laundry...and this one year...there was a lot of our kids that were getting like skin diseases or rashes.

Another interviewee from Community C further illustrated this point.

[E]ach reserve had these hydro plants in their reserves for the power...Hydro's done a lot of damage to mother earth...some places you are not allowed to eat the organ meats of the animals because there is so much pollution here...there's too much mercury in the fish.

The above examples clearly show the impact of external corporations on *natural socially invested resources*, mostly in a negative way.

LINKAGE SOCIAL CAPITAL: CULTURE: TRUST

The experience of *trust* or lack of trust with institutions emerges from direct experiences of individuals with representatives of these institutions (agents, administrators, service providers, etc.) or indirectly through the experience of the community leadership with these institutions. This comment from Community A speaks of lack of *trust* based on individual experiences.

I've heard people make comments that they don't feel the doctors listen to them sometimes or they don't feel that they are treated properly when they go to the hospital....

From Community C there is a description of lack of trust between community leadership and the federal government.

[The interaction between] Aboriginal people and the federal government... seems to be a political, I don't know, clash for every thing, red tape... it's for ever going and going....

On the other hand, an individual from Community C involved in negotiating possible development opportunities with staff from Indian Affairs, talked highly of a staff person he was dealing with, suggesting a trusting relationship. Consequently, experience of *trust* or lack of thereof with federal/provincial governments and agents, banks and corporations, can be both from an institutional level (e.g., Chief and Council) and a community member level.

LINKAGE SOCIAL CAPITAL: CULTURE: NORMS OF RECIPROCITY

The following comments illustrate sentiments related to *norms of reciprocity* between communities and institutions, in these examples mostly related to Indian and Northern Affairs Canada. "I think Indian Affairs made people helpless and it takes a long time to break that mould" was the interpretation of a community member from Community A of historical reciprocal relations. A band worker from Community B, talking about inland communities, indicated that Indian and Northern Affairs takes advantage of them in their negotiations. In summary, evidence of *norms of reciprocity* would be seen if there is experience of fair treatment with federal/provincial governments, banks, corporations, and lower levels of tension and conflict.

LINKAGE SOCIAL CAPITAL: CULTURE: COLLECTIVE ACTION

Collective action between Community B and the government can be seen through the following statement:

So right now we're restricted just to on-reserve residences but that's not our agreement...so we need an agreement [signed by] council [and] the provincial government and federal government...that we use the Manitoba Child and Family Services Act to do the work...and then Indian Affairs provides the funding to the agency....

The experience of working together with federal/provincial government agencies, as with corporations, in collaborative ventures and for mutual benefit, would be evidence of *linkage collective action*.

LINKAGE SOCIAL CAPITAL: CULTURE: PARTICIPATION

The following comment from Community B would imply lack of *participation* at a *linkage* level.

[T]he last Indian Agent here was years ago, but still our Chief and Council takes direction from the Department of Indian Affairs. They're the governing body here.

The loss of participation at a *linkage* level was made graphic by this interviewee's statement:

Yes, I guess part of our practice, part of our culture is doing a lot of community consultation...and the federal government slashed that piece of it...we used to have community co-ordinators who would do the consultation, set up workshops to inform the people about the changes...the federal government argued that we were doing too much consultation.

Key indicators of participation in the *linkage* dimension would be voting rates in federal and provincial elections.

LINKAGE SOCIAL CAPITAL: NETWORKS: INCLUSIVE

Inclusiveness relates to interactions with institutions, which can be from a band administration perspective or from a community member's perspective. An example of the former from Community C is the following statement from a band official.

So I contacted the company representing Indian Affairs... dealt with...a gentleman by the name of...and he was extremely co-operative with all my ideas...providing very useful information that saved money and helped upgrade educational services.

A similar case was the ability to establish a deal with a computer company and the Education Authority to allow the school to have a computer lab. This deal was possible because of the inclusive interactions that had been established between the institutional players. The other aspect relates to the experience of community members with institutional agencies that oper-

ate in the community (school, hospital/nursing station), Royal Canadian Mounted Police, and outside the community. The openness of the school in providing information or enhancing parent involvement would be an expression of inclusiveness, as would be the access of individual members to federal and provincial government information.

LINKAGE SOCIAL CAPITAL: NETWORKS: FLEXIBLE

As with *inclusive networks*, these relate to interactions from community members' experience and from band institutional levels. *Flexibility* would be expressed by school staff and authorities being open to change how they relate with community members, and vice versa, continually adjusting to new situations. This also applies hospital and/or nursing stations in their relations with the community. At a band institutional level, the lack of significant change in modes of interaction with government departments and corporations, would signal lack of *flexible networks* for the *linkage* dimension.

LINKAGE SOCIAL CAPITAL: NETWORKS: DIVERSE

Lack of *diversity of networks* from a band institutional level would be constituted by the reliance on very few sources of contact with government departments, corporations, and banks. This would be similar to a community member's view, for example with school and hospital/nursing station staff and authorities.

DISCUSSION

Let us consider what the idea of social capital formulated in this study can add to the understanding of the determinants of health in First Nations communities. It presents a dynamic way of characterizing communities that enables comparability based on features that encompass both internal and external relations. It captures social elements with varying degrees of tangibility from a First Nations community perspective. Finally, it offers a meaningful structure from which to hypothesize and empirically study social environmental factors as potential pathways to health.

Health is the product of multiple levels of influence. These include genetic and biologic processes, individual behaviours, and the context within which people live — the social environment. A multi-level approach to community health requires us to take into consideration, and act upon, social determinants. Social capital has been postulated as a characteristic of the social environment, and thus as a potential determinant of health (Szreter and

Woolcock 2004). However, for social capital to be identified as a health determinant, three steps are required. First, a clear conceptual formulation of how social capital can characterize a community is needed. This paper has provided an illustrated description of the framework formulated by our study. Second, a model is required that articulates the plausibility of social capital as a factor in health. Although this paper does not formulate the model, we provide a preliminary discussion below that points in this direction. The initial dissemination of our findings and hypothesis that social capital is a plausible determinant of health among the leadership of the participant communities was favourably received, in that it offered a framework for the examination of specific community characteristics. Third, we need empirical inquiries to produce evidence confirming or disconfirming the hypothesis of social capital as a determinant of health. A next step in our program of research will use social capital data from the 2002 wave of the Manitoba First Nations Longitudinal Health Survey for these analyses. The dissemination of findings of the next phases will offer opportunities for further feedback.

Community social capital as formulated in our study is based on the notion that this capital pertains to the entire community and that it is multidimensional. The distinction between bonding, bridging, and linkage social capital means that a community can have higher levels of, for example, bonding social capital and at the same time lower levels of linkage social capital, compared to another community. This implies that there can be relative independence among the three dimensions. As Woolcock (2001) has indicated, "a multidimensional approach allows us to argue that it is different combinations of bonding, bridging and linking social capital that are responsible for the range of outcomes we observe." The importance of distinguishing three dimensions is that it captures the reality that communities do not exist in isolation, but in relationship with other communities, as well as with institutions. Let us examine examples of possible connections between social capital and health.

The decision of a community to invest in cultural camps and/or Aboriginal language programs for their children has the potential of increasing the cultural identity of its youth, thus strengthening the community. One of the central effects of colonization was to disrupt the cultural continuity of First Nations and destroy the sense of pride as people. This resulted in serious effects on the health and well-being of generations. The resurgence of Aboriginal ceremonies, practices, and values has already shown to have powerful healing qualities. Henry (1982) investigating the relations of social to biological processes in disease, argues that:

The enormous complexity of human society and man's capacity through his symbol system to identify with more powerful beings...give him certain invulnerability to limbic system arousal as long as he perceives himself to be socially supported here or in the hereafter. But, if as the result of early or late experience or a combination of both, he comes to perceive himself as helpless and lacking power to control his fate, he may well become more vulnerable...[to illness].

Thus the importance of symbolic socially invested resources, which can be within the community (bonding), jointly with other communities (bridging), or in interaction with institutions (linkage).

A community with higher levels of social capital would be expected to have a culture of trust, participation, collective action, and norms of reciprocity. There has been increasing evidence in population health studies that communities where people tend to trust each other live under less stressful conditions. Stress has been recognized as an important pathway to health or illness (McEwan 1998). However, trust among community members is one aspect of social capital (bonding). Trust among members of different communities (bridging) can also have significant impacts. The possibility of learning from what others are doing, the willingness to share resources or information, the enjoyment of positive relations with other communities, impacts the well-being of community members. The increase in bridging social capital evidenced by the strength of organizations like the Assembly of Manitoba Chiefs, tribal councils, etc., that has created spaces of trust, participation, and collective action among communities, has already had a positive impact in addressing health needs of First Nations.

The quality of social networks has been studied as affecting health. Rigid social networks that exclude others from information or even meaningful social contact are deleterious to health. For example, the feeling of exclusion or social isolation has a powerful impact on self-esteem; the lack of access to information about resources or opportunities will limit the access to basic resources and thus to well-being. Studies have related social isolation to an array of adverse health outcomes (House et al. 1999). Communities with flexible, inclusive, and diverse networks tend to develop a social environment that is more conducive to health because fewer people will be left out of opportunities, dialogue, information, and resources. The same can be said of relations with other communities (bridging) and with institutions (linkage). A community that has a series of well established networks with institutions will have better possibilities of obtaining resources or opportunities, thus increasing its well-being.

In summary, and paraphrasing other authors (Briggs and Elliott 1995), decreased social capital may cause or indicate unjust, exclusive social policies; unequal patterns of participation; and decreased trust, any of which may affect health. Lower social capital might impact societal influences over individuals' health behaviours, cause or indicate increased anomie, or affect access to health services and information. Decreased social capital might weaken informal social support systems, lead to social policies that de-emphasize preventive services or impact economic structures, resulting in fewer educational or occupational opportunities.

The above arguments suggest that health is impacted to a large extent by policies defined outside of traditional health policy areas. More so, they highlight how policies that affect the life of communities should be a source of consideration because of their plausible role in reducing health risks and improving resistance.

In terms of policy there are several levels that require examination. Simplifying, we can examine federal, provincial, regional, and community levels. To illustrate, we can take a case where the Chief and Council of a community is debating whether or not to allow video lottery terminals to be introduced. From a strictly financial point of view, this could be favourable for band administration funds. Nonetheless, potential negative impacts in the community's social capital would have to be considered in the decision. If the effect of video lottery terminals could be to disinvest in families or to negatively impact norms of reciprocity within the community, these considerations could outweigh potential benefits. On the other hand, investment in organizing Pow-Wows could have a positive impact both within the community and among communities, despite funding requirements. The understanding that these factors ultimately have an impact on health and well-being of community members would provide a more accurate information basis for policy decisions.

Another example is the situation of a First Nations community that has experienced a cluster of suicides among their youth. One of the needs identified by community members and leadership is the development of recreational facilities and programs for children and youth. The expectation is that these initiatives would to some extent reduce youth suicide risk factors. In fact, a large recreational facility was constructed, with the ironic twist that it was never opened for use because of contractual disagreements between Chief and Council and the construction company, and with the federal government. From a social capital perspective, this can be understood as con-

tributing significantly to low linkage social capital. Given the severity of the situation among youth, federal department policy should take social capital as a critically important factor relevant to health and should focus on resolving the dispute in order to open the recreation centre for community use.

The notion of social capital offers a lens that takes into account historical factors as they are embedded in current societal features, consequently having the potential to offer a richer understanding of these factors as health determinants. To exemplify from a historical perspective of First Nations peoples, the loss of a significant number of population in Aboriginal communities due to disease in the early years of colonization, the loss of traditional lands, the policies of assimilation and residential schooling, the loss of political autonomy (Royal Commission on Aboriginal Peoples 1996, Dickason 1997, Gralewicz 1997) can be also interpreted as having had a potentially negative impact on the stocks of social capital. However, this interpretation cannot be made mechanistically, because the ongoing struggles to counter these forces may also have had the potential of generating stocks of social capital, albeit in only one or two dimensions. The three dimensional understanding of social capital implies that policies may at times require the sacrifice of one dimension over another. For example, communities with high levels of resistance to external relationships (linkage) may do so to generate high levels of bonding and bridging social capital. The community that resists Manitoba Hydro funding for flooding of traditional territory may be creating stronger bonds of trust and collective action within the community. On the other hand, a higher degree of internal collective action may provide the leverage necessary for higher levels of linkage social capital, as in the case of a northern Manitoba community that marched in protest to Winnipeg and camped at a public place in the city for weeks, until the funding for housing was obtained.

A quote from the Royal Commission on Aboriginal Peoples (1996), referring to Aboriginal societies of the past, offers a clear description of communities that could be understood as possessing high stocks of social capital:

The economic relations embedded in traditional cultures emphasized conservation of renewable resources, limiting harvesting on the basis of need, and distributing resources equitably within the community, normally through family networks. Since families and clans owned rights to resources and since everyone was connected in a family, no one was destitute and no one was unemployed.

Inherent to the way social capital was conceptualized in our study is the notion of community as an entity of empirical inquiry and policy. Our re-

search program will continue this inquiry by further validating the framework and measurement tools, and by empirically testing the association between social capital and health. If social capital can be a source of inquiry, then the effects of policy on the social capital of communities should be monitored. Policy decisions from different levels of government, corporations, and First Nations leadership may intentionally or unintentionally impact community social capital stocks for better or worse, and consequently on the health and well-being of their populations.

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