



September 2015

## Collaborative Public Health System Interventions for Chronic Disease Prevention Among Urban Aboriginal Peoples

Piotr Wilk

*Western University, piotr.wilk@schulich.uwo.ca*

Martin Cooke

*University of Waterloo, cooke@uwaterloo.ca*

---

### Recommended Citation

Wilk, P., Cooke, M. (2015). Collaborative Public Health System Interventions for Chronic Disease Prevention Among Urban Aboriginal Peoples. *The International Indigenous Policy Journal*, 6(4). DOI: 10.18584/iiipj.2015.6.4.3

---

# Collaborative Public Health System Interventions for Chronic Disease Prevention Among Urban Aboriginal Peoples

## **Abstract**

Urban Aboriginal peoples are at higher risk to a variety of chronic diseases, compared with other Canadians. Social determinants of health, socio-ecological approaches to health, and life course perspectives can identify some of the various factors that contribute to this excess risk. The complexity of these factors suggests that an effective strategy for reducing this risk might be to focus on improving the capacity of the local public health system that serves Aboriginal people and families, rather than on interventions aimed solely at individual health behaviour change. This article uses the Healthy Weights Connection intervention as an example of one of several systems-focussed and collaborative approaches to improving the health of urban Aboriginal people. Despite their potential utility, we suggest that there are unique considerations for implementing and evaluating such interventions in an urban Aboriginal context.

## **Keywords**

urban Aboriginal health, chronic disease, public health system, public health intervention, health evaluation, health policy, collective impact

## **Acknowledgments**

This project is funded by the Public Health Agency of Canada (PHAC) Innovations Strategy: Achieving Healthier Weights in Canada's Communities.

## **Creative Commons License**



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

---

## Collaborative Public Health System Interventions for Chronic Disease Prevention Among Urban Aboriginal Peoples

Improving the health and wellbeing of Aboriginal people is a major policy challenge in Canada. First Nations, Inuit, and Métis are at higher risk than are other Canadians to a number of poor health outcomes, including preventable chronic diseases such as type II diabetes and some cancers. Although the most proximate causes are usually disease-specific, most of these chronic diseases have in common a web of causal factors that operate at different socio-ecological levels, including individual health behaviours, family conditions, neighbourhood and community characteristics, all conditioned by the macro-level context of historical colonization, and Aboriginal–settler relations, including forced assimilation (Gracey & King, 2009).

These health inequities are experienced not only by people in discrete Aboriginal communities such as First Nations but also by those living in cities and towns, now a majority of the Aboriginal population. In an urban context the various components of this causal web are affected by the activities of a wide range of organizations and institutions, including schools, health centres, social services, and local government. These organizations can therefore play a role in preventing chronic diseases and can be thought of as composing the local public health system (Centers for Disease Control and Prevention, 2014). These local systems are increasingly the focus of public health intervention efforts that aim to improve their overall operation, instead of focussing directly on providing specific health education or health promotion services to individuals or families (Roussos & Fawcett, 2000). A key component of many of these efforts is collaboration, particularly between sectors and across domains of public health and social service provision, to increase the potential for “collective impact” on a particular health or social problem and to increase the overall capacity of the public health system to provide these services and to respond to needs of the local community (Kania & Kramer, 2013).

In this article, we argue that collaborative approaches or cross-sector collaboration may be particularly well suited to enhancing the ability of the public health system to address the excess risk of chronic disease among urban Aboriginal peoples. The complexity of the factors affecting these populations and the similarly complex and often fragmented nature of the public health systems that serve them strongly indicate to us that collective efforts are more likely to be successful than individual programs or policy changes. Promisingly, there are several examples of these collaborative initiatives that are currently underway in Ontario. However, there are also characteristics of urban Aboriginal communities, including the political and historical contexts, which should be considered in attempts to promote concerted action to prevent chronic disease.

Below, we briefly describe some key characteristics of urban Aboriginal populations in Canada and the public health systems that serve them. The article presents some of the conceptual frameworks that we think should inform chronic disease prevention among these populations. We use an intervention promoting healthy weights among urban Aboriginal children and youth, the *Healthy Weights Connection*, in which we are involved, as an innovative example of “system-level” public health interventions to improve Aboriginal peoples’ health. Using this and other examples, we explore some of the challenges for systems-level and collaborative interventions in urban Aboriginal contexts.

## **Background: Urban Aboriginal Communities and Complex Health Systems**

The urban Aboriginal population is large and growing. In the 2011 National Household Survey, 1.4 million Canadians identified themselves as members of an Aboriginal group (First Nations, Inuit, or Métis), 56% of whom were living in an urban area at the time of the census (Aboriginal Affairs and Northern Development Canada, 2013). This proportion is increasing rapidly: between 1996 and 2011, the urban Aboriginal population grew at a rate of more than 4.7% per year (Aboriginal Affairs and Northern Development Canada, 2013), due mainly to a combination of a higher fertility and a greater tendency for people to identify themselves as Aboriginal in the census (Guimond, Robitaille, & Senécal, 2014).

Part of the reason for this growth is that this is a young population. Forty-six percent of urban Aboriginal people were under age 25 in 2011, compared with 29% of the Canadian population (Aboriginal Affairs and Northern Development Canada, 2013). This means more women in childbearing ages and therefore continued high fertility. The sizable Aboriginal youth population also contributes to it being a very mobile population. Young people in general are more likely to change communities than are older people, mainly for work or education, although Aboriginal people tend to be more mobile than non-Aboriginal Canadians at any age (Clatworthy & Norris, 2014). In the case of First Nations, a substantial proportion of this mobility is between First Nations communities and urban areas. Contrary to some popular beliefs, there is no research evidence of large-scale migration into cities. Instead, in most recent census periods roughly as many have moved from cities to First Nations as in the other direction, suggesting a considerable amount of circulation or multiple moves between the two types of community (Clatworthy & Norris, 2014).

Urban Aboriginal populations are also diverse, in terms of cultural affiliation, legal status, and socio-economic position (see Ghosh & Spitzer, 2014). They typically include First Nations, Métis, and Inuit people whose cultural connections may stretch across the country, as well as those who live within what they consider to be their traditional territories. They include people with and without “status”, or registration under the Indian Act, people who may have recently moved to the city from First Nations or other Aboriginal communities, and those whose families have lived in the city for generations. Cities are home to people with deep personal connection to Indigenous cultures and languages, and those for whom an Aboriginal identity may be important, but who have not been raised or educated in a First Nations, Métis, or Inuit environment. Among those might be some of the many mixed-ancestry people who identify as Aboriginal, or who are married to or living with non-Aboriginal family members (see Robitaille & Guimond, 2003). Although higher rates of low income and unemployment continue to be problems for urban Aboriginal people, these communities are far from economically homogenous, and there is also evidence of a growing “urban Aboriginal middle class” in some cities (FitzMaurice, McCaskill, & Cidro, 2012).

Like people living in rural or remote Aboriginal communities (First Nations Information Governance Centre, 2012), urban Aboriginal peoples face disproportionate risks of chronic disease and related conditions. A major concern is diabetes. Based on the 2009 to 2010 Canadian Community Health Survey, the age-standardized prevalence was 7.3% among Métis and 10.3% among First Nations living off-reserve, compared with 5.0% in the non-Aboriginal population (Public Health Agency of Canada, 2012). Recently conducted links between health and administrative data sources have identified high or

rising rates of other chronic conditions among urban Aboriginal populations. Among Métis, the most urbanised Aboriginal group, a high risk of cardiovascular disease has been identified in Ontario (Métis Nation of Ontario, 2013). A rising risk of cancer has been found among First Nations (Kewayosh, et al., 2015).

The reasons for the high rates of chronic disease among urban Aboriginal peoples are complicated and multifactorial. In historical and epidemiological terms, Aboriginal populations in general might be thought of as at a mid-way point in an epidemiological transition (Omran, 2005; Romaniuk, 2014). Aboriginal peoples continue to experience higher rates of death and illness due to infectious diseases than do non-Aboriginal Canadians, but are now also at higher risk of the “lifestyle” related chronic diseases that have become the leading causes of death among Canadians. These trends are related, albeit in a complex way, to health behaviours. Aboriginal people are more likely to smoke and to have Body Mass Index (BMI) scores in the ranges considered “overweight” or “obese” than are non-Aboriginal Canadians (Gionet & Roshanafshar, 2013), although there is also evidence that Aboriginal adults are more physically active than are non-Aboriginal Canadians (Findlay, 2011). The relationships between these behaviours and socio-economic factors also may be different in Aboriginal and non-Aboriginal populations. Whereas the rise of “delayed degenerative diseases” among Canadians and other citizens of wealthy countries has come as a result of higher standards of living, the excess risk among Aboriginal peoples coincides with higher rates of low income, food insecurity, unemployment, and other symptoms of social and economic marginalization (Gracey & King, 2009).

The public health system of organizations and institutions that serve urban Aboriginal people, and which may be used to address these inequities, is also complex. Healthcare may be provided by non-Aboriginal clinicians and universal organizations or by Aboriginal-specific health centres such as the Aboriginal Health Access Centres located in some Ontario communities, some of which provide both Western biomedicine and traditional healing. In urban areas, local public health authorities are often the main source of health promotion and health education activities for the majority of the population, and they might or might not provide programming specifically targeted to Aboriginal people. A range of other institutions might provide more culturally specific health promotion services. These include local Aboriginal organizations, such as Friendship Centres and Aboriginal health centres, as well as non-Aboriginal community health centres that serve neighbourhoods with high needs, often coinciding with concentrations of Aboriginal populations.

Local Aboriginal organizations are often the providers of provincial or federal programs aimed at improving health outcomes. Since 1995, the Canadian government has provided maternal and child health services in urban communities through Urban and Northern Aboriginal Head Start, delivered in urban areas by Friendship Centres and other Aboriginal organizations (Public Health Agency of Canada, 2010). In Ontario, the provincial government funds a number of programs through the Aboriginal Healing and Wellness Strategy (AHWS), including various community wellness and health education and health promotion programs. These are delivered in urban areas mainly through the service offices of the Métis Nations of Ontario (MNO), the Ontario Federation of Indigenous Friendship Centres (OFIFC) and their member centres, and the Ontario Native Women’s Association (ONWA) (Ontario Ministry of Community and Social Services, 2012a). These provincial or regional organizations often also support health promotion or health education efforts targeting Aboriginal people by producing health education materials, cultural competency materials or training, workshops, and other resources

that are used by local service providers. In Ontario, they are aided by other provincial-level initiatives, such as the Southern Ontario Aboriginal Diabetes Initiative (SOADI), funded by the Ontario Ministry of Health and Long-Term Care (MOHLTC) for the “development and enhancement of programs and services focusing on the education, prevention, and management of diabetes in Aboriginal communities, both on and off-reserve” (Southern Ontario Aboriginal Diabetes Initiative, 2015, para. 1).

Urban Aboriginal people do not only access services or participate in health promotion or health education programs that are provided by Aboriginal organizations. The activities of universal service providers or clinicians, as well as schools, municipal planning and recreation departments, service organizations such as the YMCA and YWCA or Boys’ and Girls’ Clubs, and a range of other organizations can also affect the health of local Aboriginal people. These organizations may have varying levels of experience and expertise addressing the specific needs of Aboriginal people, but whether they recognize it or not, are integral part of the public health system that affects urban Aboriginal peoples’ health.

### **Conceptual Lenses on Aboriginal Peoples’ Health**

Over the past few decades, public and population health researchers and practitioners have developed a number of conceptual lenses that help us to identify and understand the various factors that affect the health of Aboriginal peoples, and which identify targets for intervention efforts. Although there are other perspectives on Aboriginal peoples’ health, including culturally-specific frameworks, we think that three of these perspectives—social determinants of health approaches, socio-ecological frameworks, and the life course perspectives—are particularly important for informing efforts to reduce chronic disease among urban Aboriginal peoples.

Perhaps the most influential perspective in health promotion of the past 50 years has been the “social determinants of health” approach, focusing on the “upstream” factors that affect health outcomes. This well-known framework tends not to elucidate the mechanisms that underlie these determinants, but does point to the role of social and economic inequalities in generating health inequalities, as well as some of the intermediate factors, such as food insecurity, housing quality, and employment conditions. Critically, it also identifies race and ethnicity as separate determinants, and Canadian versions of this approach have included Indigeneity as a determinant, conceptually separate from race or ethnicity (Canadian Public Health Association, n.d.; Public Health Agency of Canada, 2011). Some scholars have worked on identifying specific determinants that affect Aboriginal peoples’ health, separately from or in addition to the effects of poorer average conditions on the other determinants, such as income and housing (Czyzewski, 2011). Although more research is required to understand these mechanisms, particularly among urban Aboriginal communities, it has been suggested that these “Aboriginal-specific” determinants of health may include access to traditional knowledge and culture, language, access to traditional lands and waters, and “life balance” (Greenwood & de Leeuw, 2012; Richmond & Ross, 2009).

These various determinants of health can be thought of as operating at different conceptual levels, with some more proximate to health outcomes and others more distal (Greenwood & de Leeuw, 2012). “Socio-ecological” frameworks, the second approach we think is important to consider, make explicit the “levels” at which these factors act, thereby providing a better guide for intervention efforts (McLeroy,

Bibeau, Steckler, & Glanz, 1988). Contextual factors that affect individual health-related behaviours and decision-making can include aspects of families or households, neighbourhoods and communities, as well as those that operate at the regional policy or macro-social levels. By targeting these aspects of the social environment, for example by improving opportunities for physical activities available in schools, health promotion programs may be better able to support individual behaviour change (McLeroy, et al., 1988). However, in the case of Aboriginal peoples, health-affecting conditions at the macro-level include colonial histories and continuing discriminatory policies, which continue to shape their experiences of other levels of context, including neighbourhoods, families, and school experiences (Willows, Hanley, & Delormier, 2012).

Finally, like socio-ecological and social determinants frameworks, the life course perspective offers a standpoint on health inequities that can incorporate many different mechanisms of action, and which mainly helps guide research and practice to ask particular questions that might not otherwise be asked. By adding a temporal dimension, the life course directs us to the conditions early in life that affect health in later life, as well as to the interrelationships among trajectories in health, work and education, and family and community life (Halfon & Hochstein, 2002). Loppie Reading and Wein (2009) have proposed an “integrative” life course and social determinants framework that considers the specific factors and contexts experienced by Aboriginal people, and their effects on health trajectories. This approach attempts to combine the general and Aboriginal-specific determinants in order to reflect the “dynamic interplay of social, political, historical, cultural, environmental, economic and other forces that directly and indirectly shape Aboriginal health” (Loppie, Reading, & Wein, 2009, p. 26).

### **Benefits of Systems-Level Approaches**

Taken together, we think that these three frameworks strongly suggest the need for systems-level approaches to reducing chronic disease risk among urban Aboriginal peoples, and they reinforce a holistic approach to chronic disease prevention that is generally congruent with Indigenous perspectives on health (Greenwood & de Leeuw, 2012). The social determinants of health perspectives remind us that, although many of the proximate causes of chronic disease may be related to individual behaviours, those behaviours are strongly conditioned by social and economic environments, as well as by the unique factors that affect Aboriginal peoples. A socio-ecological framework point to the specific contexts in which these factors operate, and at which particular interventions might be aimed, such as individual families, schools, neighbourhoods, communities, or broader social, economic, or legal conditions. Life course perspectives emphasize the importance of considering the conditions early in life, including maternal and child health, which are particularly important given the youth of the Aboriginal population.

Considering these perspectives, it also seems clear that no single intervention approach is likely to be sufficient to address the inequities in risks for any particular chronic disease among urban Aboriginal peoples. In particular, individual-level programs implemented without attention to the contexts that affect health behaviours may not be able to overcome the barriers that operate at various socio-ecological levels. Those may be best addressed by the activities of particular organizations or institutions in the system—Aboriginal and non-Aboriginal organizations that serve Aboriginal families, schools that provide programming during or after classes, municipal planners who consider the placement of recreation facilities and urban walkability, public health authorities that provide a variety of health education and health promotion materials, and others. The Aboriginal-specific determinants of health

remind us that these risk factors might not be the same for Aboriginal people and other community members, and effective health promotion will often require culturally-specific approaches. At the same time, the diversity of urban communities means that one cannot assume that any particular cultural approach or intervention will meet everybody's needs, or even that all urban Aboriginal people will necessarily prefer services delivered by Aboriginal providers.

The case of programs aimed at reducing obesity among Aboriginal children is illustrative of the difficulty of addressing these complex problems. In Canada and the US, there have been several large community-based health promotion projects that have attempted multi-level interventions in First Nations or American Indian communities, with components that have promoted healthier diets and physical activity within families, in schools, as well as implementing changes that affect whole communities such as improving walkability or access to healthy foods. Although community-based programs have generally been more successful than standalone interventions targeting only children, even these programs have had difficulty showing sustained improvements in children's behaviour and health outcomes (Towns, Cooke, Rysdale, & Wilk, 2014). Considering the relatively high degree of control that First Nations have had in implementing these large scale programs in their communities, the diverse and fragmented nature of urban communities and the health systems that serve them suggests that engaging the system as a whole through inter-sectoral collaboration (Midgley, 2006; Trickett, Deutsch, et al., 2011) is necessary in an urban context.

In the following section, we present the Healthy Weights Connection (HWC), an intervention to reduce obesity and overweight among off-reserve Aboriginal children funded by the Public Health Agency of Canada's Innovation Strategy: *Achieving Healthier Weights in Canada's Communities*, as an example a collaborative system-level intervention.

### **The Healthy Weights Connection (HWC) Intervention**

The project began as a pilot in 2010 in London, Ontario, as an outgrowth of a Canadian Institutes of Health Research's Institute for Aboriginal Peoples' Health—a funded investigation of determinants of obesity among off-reserve Aboriginal children and youth. The original intention of this investigation was to identify opportunities for individual-level interventions to reduce obesity risk. Consultations and focus groups with both Aboriginal-specific and universal service providers, revealed several local individual-level programs already in existence. These programs were often of short duration because of the available funding, and organizations implementing these programs were sometimes unaware of complementary or related programs offered by other organizations. Moreover, it became clear that among universal public health and social service providers there was a strong desire to serve the local Aboriginal population, but that these practitioners often lacked institutionalized connections to Aboriginal organizations who might be able to provide advice and knowledge about cultural appropriateness, or to whom patients or clients could be referred.

In response, the HWC intervention was reconceptualized as a systems-level intervention with the broad goal of improving the ability of local public health systems to serve Aboriginal children and families. The main mechanisms of the intervention are the activities of a Site Coordinator. Working out of a local Aboriginal organization or health centre, the Site Coordinator is first responsible for undertaking a system scan to identify the local organizations who are providing healthy weights programs, as well as



services or programming that address other determinants of childhood obesity, including food security and food literacy. Making use of publicly available information, as well as formal and informal inquiries with key informants, the system scan also identifies local child and youth health initiatives, whether or not they specifically target Aboriginal children, and provides the foundation for understanding the existing relationships among organizations.

The next task of the Site Coordinator is to connect personally with the actors in the system and to look for opportunities for collaboration. This involves arranging introductory meetings to learn about the activities, mandates, and challenges of individual organizations, and to understand their relationships to one another. This “active engagement” is time consuming but important—forming relationships with individual service providers is more likely to result in meaningful partnerships than relying on more passive knowledge translation approaches such as newsletters or internet-based communication, although those are also elements of the intervention. This engagement approach is also strengthened by the fact that the Site Coordinator is hosted by a local Aboriginal organization with existing relationships with other institutions. This can provide the “foot in the door” with managers or staff at other centres or local government organizations. At the same time, it can also be useful that the Site Coordinator is able to identify herself as somewhat separate from the local organizations, helping her to bridge existing political divisions in the community.

Having established some connection with many of the important organizations and actors in the system, the primary role of the Site Coordinator is to actively look for opportunities for collaboration and resource sharing. This involves exchanging knowledge among local organizations, sometimes by simply passing information about new initiatives or programs and sometimes by taking a more active role in organizing meetings among partners to discuss potential collaborations. The Site Coordinator also convenes forums on particular issues, inviting speakers from outside the community to share information on successful programming or interventions and other topics related to the health of Aboriginal families and children. The Site Coordinator may help partners apply for funding for collaborative projects by identifying funding opportunities and assisting in proposal development or program design, and generally supports collaborative efforts among local organizations. Expected outcomes include more local programming and initiatives aimed at improving the health of Aboriginal children and youth, better participation and uptake of the available services, and improved cultural content in those programs and services that already exist.

These activities are further supported by a “backbone organization” (Turner, Merchant, Kania & Martin, 2012). Backbone activities include the production of newsletters and a website, assistance with the system scans and proposal development, and the production of resources such as “fact sheets” that condense and translate scientific research regarding healthy weights interventions into forms that are more accessible by staff and managers working at local organizations. The Site Coordinator and the backbone organization thereby facilitate the translation and exchange of knowledge from outside the community to actors within it, as well as between institutions within the community.

The HWC intervention has been running in this revised form in London since 2011 and in Midland, Ontario since 2013 and is being evaluated to assess its impact in each community. The intervention is expected to result in change at the level of the system, including more collaboration related to Aboriginal children’s health and more local programs and services available to address the issue. Among individual

organizations, the program expects to result in better knowledge of the needs of local Aboriginal families and more cultural awareness, as well as improved attitudes toward collaboration and working together. Taking a realist approach to evaluation (Pawson, 2013), the project is being evaluated from the perspectives of local organizations and service providers and First Nations and Métis community members, using qualitative methods and quantitative network surveys, as well as website and social media analytics.

### **Other Systems-level Interventions to Improve Urban Aboriginal Health**

The HWC is one of several examples of systems-level and collaborative approaches to improve the health of urban Aboriginal communities and First Nations. Through Ontario's Aboriginal Healing and Wellness Strategy (AHWS) (Ontario Ministry of Community and Social Services, 2012a), community wellness workers, health outreach workers, and community development support workers have been placed in communities across the province, working from local Aboriginal organizations, with funding flowing through the Ontario Federation of Indian Friendship Centres, the Ontario Native Women's Association, the Anishnabek Nation of Ontario, the Métis Nation of Ontario, the Association of Iroquois and Allied Indians, as well as other organizations and tribal councils (Ontario Ministry of Community and Social Services, 2012b, 2012c). Although these roles differ, they all include activities that are intended to improve links among Aboriginal organizations and between Aboriginal and universal service agencies, increasing the representation of Aboriginal people on local health decision-making bodies and facilitating information sharing between service providers in the community. In particular, the goals of the Aboriginal Health Outreach Worker program include improving relationships among service providers, increasing the number of Aboriginal-specific health care initiatives in the local community, and providing links to cultural resources, as well as to agencies providing universal health services (Can-Am Indian Friendship Centre, 2014).

There are many other examples of collaborative systems-level interventions outside Aboriginal communities. Systems approaches have become important in low- and middle-income countries, in which existing systems have clearly limited resources and infrastructure, but are also seen in countries such as the US and Canada. They may be based on various conceptual frameworks and refer to somewhat different literatures, such as "collective impact" (Kania & Kramer, 2013) or community- or system-level interventions (Trickett et al., 2011), but they generally share the perspective that complex or "wicked" public health problems must be addressed by multiple actors through coordinated approaches rather than by single, targeted intervention programs. These approaches have the potential advantage of addressing problems at different socio-ecological levels, rather than focussing on individual behaviour change, and hopefully result in increased community capacity that is maintained after the end of the program.

### **Challenges for Collaborative Systems Interventions in Urban Aboriginal Contexts**

Given the current level of interest in collaborative approaches to public health improvement, it seems likely that this will be increasingly attractive as a direction for improving the health of Aboriginal people in Canada, particularly in urban areas. However, there are two main considerations that we believe those taking a collaborative or systems-level approach should keep in mind when designing an intervention for

urban Aboriginal peoples' health: the unique elements of an urban Aboriginal context and the identification of outcomes and ways of measuring them.

### **The Importance of Context**

The development of successful collaborations is difficult in any context, and needs to overcome different organizational cultures, mandates, entrenched interests, and other barriers to concerted action. The evaluation and research questions presented by these collaborative interventions therefore tend to focus on understanding the strategies and conditions that lead to the successful mobilization of community actors and resources to address public health problems (Babiak, 2009; Darnell et al., 2013; Lucidarme, Marlier, Cardon, De Bourdeaudhuij, & Willem, 2014; Roussos & Fawcett, 2000; Sanson-Fisher, D'Este, Carey, Noble, & Paul, 2014). Aspects of the context that might matter include the characteristics of stakeholders, the range and capacity of institutional actors, the presence of "champions" or leadership groups, and the funding environment.

There are unique aspects to urban Aboriginal communities that might affect the success of collaborative systems intervention, and which require efforts to overcome. The complexity of relationships within mixed urban Aboriginal communities, including cultural differences and political histories, may present barriers to concerted efforts by the local community. Colonial history has also resulted in what can be deep mistrust of universal organizations by Aboriginal communities and Aboriginal organizations. "Collaboration" with universal organizations may be seen by Aboriginal organizations as attempts to control, and they may feel that self-determination and autonomy are threatened. Funding models that are based on client numbers may also exacerbate tensions among Aboriginal organizations, particularly in the context of limited financial resources. Projects attempting to improve collaboration within this system should begin by accepting that the existing set of relationships have been shaped by broader political and social forces, acknowledging that this is the context in which they are trying to promote new collaborations.

### **Identifying Success**

The second challenge is measuring effectiveness of these projects, and setting reasonable expectations of program outcomes. Merzel and D'Affitti (2003) have pointed out that community-based public health promotion programs have often had poor results, partly due to an inability of their evaluation designs to detect changes. Part of this problem is identifying the level at which we expect the change to occur, as many have focussed their evaluations at the level of individual behaviours, rather than at aspects of the systems. Although most or all of these collaborative programs, such as the Healthy Weights Connection or the various components of Ontario's AHWS are expected to ultimately result in reduced risk among individuals, collecting data with sufficient power and controls to identify these changes is difficult and expensive, and those changes may take a long time to manifest (Merzel & D'Affitti, 2003).

In addition to these "ultimate" individual-level outcomes of reduced health risks, we propose that it is important for an evaluation of a systems-level program to identify systems-level change. These could include measures of community capacity or the presence of infrastructure, as well as changes to organizational policies or behaviour. It is these changes that are generally hypothesized to be the intermediate mechanisms that will ultimately affect individual health behaviour and health outcomes, so

attention to these levels is important, and such change may be more likely to be seen within the length of a typical evaluation project.

Finally, we suggest that the evaluation of these projects should focus as much on understanding what works to promote collaboration and in what circumstances, as on ultimate outcomes. The complexity of local health systems serving Aboriginal peoples indicates to us that there is unlikely to be any single best approach to improving collaboration among system actors. Moreover, the variability among urban Aboriginal communities, including the many Ontario communities in which AHWS programs are delivered, makes it important to understand how these variations in context may affect the operations of these programs and the effectiveness of particular collaborative strategies. Dimensions of difference include community size and the resources and capacity of local organizations, but also may include the unique histories of these communities, including the outcomes of previous collaborations and local politics. Understanding what these factors are and how they might be implicated in program effectiveness is an important evaluation research goal.

### **Conclusions**

The risk of chronic disease among Aboriginal people living in urban areas is shaped by an array of factors, and these are themselves affected by the activities of various local organizations, including public health, education, social services, municipal governments, and other actors in the local public health systems. There seems to be considerable potential for interventions targeting these systems, rather than individuals, to reduce this risk effectively. There are several examples of programs in Ontario and elsewhere that are attempting to improve operation of these systems by promoting collaboration and resource sharing among system actors and, given the popularity of social determinants, socio-ecological, and life course frameworks for understanding health disparities in other contexts, we expect that these may increase. In designing and evaluating these programs, sufficient attention should be paid to the complexities of urban Aboriginal communities and to understanding “what works” to promote better programming and services in these contexts.

## References

- Aboriginal Affairs and Northern Development Canada. (2013). *Aboriginal demographics from the 2011 National Household Survey*. Retrieved from [www.aadnc-aandc.gc.ca/eng/1370438978311/1370439050610](http://www.aadnc-aandc.gc.ca/eng/1370438978311/1370439050610)
- Babiak, K. M. (2009). Criteria of effectiveness in multiple cross-sectoral interorganizational relationships. *Evaluation and Program Planning, 32*(1), 1-12. doi:10.1016/j.evalprogplan.2008.09.004
- Can-Am Indian Friendship Centre. (2014). *Aboriginal health outreach worker*. Retrieved from <http://www.caifc.ca/ahow.html>
- Canadian Public Health Association. (n.d.). *What are the social determinants of health?* Retrieved from [www.cpha.ca/en/programs/social-determinants/frontlinehealth/sdh.aspx](http://www.cpha.ca/en/programs/social-determinants/frontlinehealth/sdh.aspx)
- Centers for Disease Control and Prevention. (2014). *The public health system and the 10 essential public health services*. Retrieved from [www.cdc.gov/nphpsp/essentialservices.html](http://www.cdc.gov/nphpsp/essentialservices.html)
- Clatworthy, S., & Norris, M. J. (2014). Aboriginal mobility and migration in Canada: Patterns, trends and implications, 1971 to 2006. In F. Trovato & A. Romaniuk (Eds.), *Aboriginal populations: social, demographic and epidemiological perspectives* (pp. 119-1160). Vancouver: University of Alberta Press.
- Czyzewski, K. (2011). Colonialism as a broader social determinant of health. *The International Indigenous Policy Journal, 2*(1), 5. doi:10.18584/iipj.2011.2.1.5
- Darnell, A. J., Barile, J. P., Weaver, S. R., Harper, C. R., Kuperminc, G. P., & Emshoff, J. G. (2013). Testing effects of community collaboration on rates of low infant birthweight at the county level. *American Journal of Community Psychology, 51*(3-4), 398-406. doi: 10.1007/s10464-012-9559-x
- Findlay, L. C. (2011). Physical activity among First Nations people off reserve, Metis and Inuit. *Health Reports, 22*(1), 47-54.
- First Nations Information Governance Centre (FNIGC). (2012). *First Nations Regional Health Survey (RHS) 2008/10: National report on adults, youth and children living in First Nations communities*. Ottawa: FNIGC. Retrieved from [http://fnigc.ca/sites/default/files/First%20Nations%20Regional%20Health%20Survey%20\(RHS\)%202008-10%20-%20National%20Report.pdf](http://fnigc.ca/sites/default/files/First%20Nations%20Regional%20Health%20Survey%20(RHS)%202008-10%20-%20National%20Report.pdf)
- FitzMaurice, K., McCaskill, D., & Cidro, J. (2012). Urban Aboriginal people in Toronto: A summary of the 2011 Toronto Aboriginal Research Project (TARP). In D. Newhouse, K. FitzMaurice, T. McGuire-Adams & D. Jetté (Eds.), *Well-being in the urban Aboriginal community* (pp. 235-264). Toronto: Thompson Educational Publishing.

- Ghosh, H., & Spitzer, D. (2014). Inequities in diabetes outcomes among urban First Nation and Métis communities: Can addressing diversities in preventive services make a difference? *The International Indigenous Policy Journal*, 5(1), 2. doi:10.18584/iipj.2014.5.1.2
- Gionet, L. & Roshanafshar, S. (2013). Select health indicators of First Nations people living off reserve, Métis and Inuit. *Health at a Glance*, 2013(November), 3-14.
- Gracey, M., & King, M. (2009). Indigenous health Part 1: Determinants and disease patterns. *The Lancet*, 374(9683), 65-75. doi:10.1016/S0140-6736(09)60914-4
- Greenwood, M. L., & de Leeuw, S. N. (2012). Social determinants of health and the future well-being of Aboriginal children in Canada. *Paediatric and Child Health*, 17(7), 381-384.
- Guimond, E., Robitaille, N., & Senécal, S. (2014). Another look at definitions and growth of Aboriginal populations in Canada. In F. Trovato & A. Romaniuk (Eds.), *Aboriginal populations: Social, demographic and epidemiological perspectives* (pp. 97-118). Vancouver: University of Alberta Press.
- Halfon, N., & Hochstein, M. (2002). Life course health development: An integrated framework for developing health, policy, and research. *Milbank Quarterly*, 80(3), 433-479. doi:10.1111/1468-0009.00019
- Kania, J. & Kramer, M. (2013). Embracing emergence: How collective impact addresses complexity. *Stanford Social Innovation Review*, 1-7. Retrieved from [http://www.ssireview.org/pdf/Embracing\\_Emergence\\_PDF.pdf](http://www.ssireview.org/pdf/Embracing_Emergence_PDF.pdf)
- Kewayosh, A., Marrett, L., Aslam, U., Steiner, R., Moy, L-K M, Imre, J., & Amartey, A. (2015). Improving health equity for First Nations, Inuit and Métis People: Ontario's Aboriginal Cancer Strategy II. *Healthcare Quarterly*, 17(SP), 33-40.
- Loppie Reading, C., & Wien, F. (2009). *Health inequalities and the social determinants of Aboriginal peoples' health*. Vancouver: National Collaborating Centre for Aboriginal Health. Retrieved from [http://www.nccah-ccnsa.ca/docs/social%20determinates/NCCAH-loppie-Wien\\_report.pdf](http://www.nccah-ccnsa.ca/docs/social%20determinates/NCCAH-loppie-Wien_report.pdf)
- Lucidarme, S., Marlier, M., Cardon, G., De Bourdeaudhuij, I., & Willem, A. (2014). Critical success factors for physical activity promotion through community partnerships. *International Journal of Public Health*, 59(1), 51-60. doi:10.1007/s00038-013-0527-5
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15(4), 351-377. doi:10.1177/109019818801500401
- Merzel, C., & D'Afflitti, J. (2003). Reconsidering community-based health promotion: Promise, performance, and potential. *American Journal of Public Health*, 93(4), 557-574. doi:10.2105/AJPH.93.4.557

- Métis Nation of Ontario. (2013). *Cardiovascular disease in the Métis Nation of Ontario Technical Report*. Ottawa: Métis Nation of Ontario. Retrieved from <http://www.metisnation.org/media/229150/819%20final%20cvd%20technical%20en.pdf>
- Midgley, G. (2006). Systemic intervention for public health. *American Journal of Public Health, 96*(3), 466-472. doi:10.2105/AJPH.2005.067660
- Omran, A. R. (2005). The epidemiologic transition: A theory of the epidemiology of population change. *Milbank Quarterly, 83*(4), 731-757. doi:10.1111/j.1468-0009.2005.00398.x
- Ontario Ministry of Community and Social Services. (2012a). *Goal of the Aboriginal Healing and Wellness Strategy*. Retrieved from [http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/goal\\_strategy.aspx](http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/goal_strategy.aspx)
- Ontario Ministry of Community and Social Services. (2012b). *Programs and supports for Aboriginal individuals and families: Crisis intervention/healing services*. Retrieved from [http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/individuals/community\\_wellness\\_workers\\_locations.aspx](http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/individuals/community_wellness_workers_locations.aspx)
- Ontario Ministry of Community and Social Services. (2012c). *Programs and supports for Aboriginal individuals and families: health and wellness: Health outreach workers*. Retrieved from [http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/individuals/health\\_outreach\\_workers\\_locations.aspx](http://www.mcsc.gov.on.ca/en/mcsc/programs/community/ahws/individuals/health_outreach_workers_locations.aspx)
- Pawson, R. (2013). *The science of evaluation: A realist manifesto*. London: Sage.
- Place, J. (2012). *The health of Aboriginal people residing in urban areas*. Vancouver: National Collaborating Centre for Aboriginal Health.
- Public Health Agency of Canada. (2010). *Aboriginal Head Start urban and northern initiative*. Retrieved from <http://www.phac-aspc.gc.ca/hp-ps/dca-dea/publications/ahsuni-papairun/index-eng.php>
- Public Health Agency of Canada. (2011). *What determines health?* Retrieved from [http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php#key\\_determinants](http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php#key_determinants)
- Public Health Agency of Canada. (2012). *Diabetes in Canada 2011: Facts and figures from a public health perspective*. Ottawa: PHAC. Retrieved from <http://www.phac-aspc.gc.ca/cd-mc/publications/diabetes-diabete/facts-figures-faits-chiffres-2011/index-eng.php>
- Richmond, C. A., & Ross, N. A. (2009). The determinants of First Nation and Inuit health: A critical population health approach. *Health Place, 15*(2), 403-411. doi:10.1016/j.healthplace.2008.07.004
- Robitaille, N. & Guimond, E. (2003). The reproduction of Aboriginal populations in Canada: Exogamy, fertility and ethnic mobility. [La reproduction des populations autochtones du Canada:

- Exogamie, fecondite et mobilite ethnique.]. *Cahiers Quebecois de Demographie*, 32(2), 295-314. doi:10.7202/008998ar
- Romaniuk, A. (2014). Canada's Aboriginal population: from encounter of civilizations to revival and growth. In F. Trovato & A. Romaniuk (Eds.), *Aboriginal populations: Social, demographic and epidemiological perspectives* (pp. 1-58). Vancouver: University of Alberta Press.
- Roussos, S. T., & Fawcett, S. B. (2000). A review of collaborative partnerships as a strategy for improving community health. *Annual Review of Public Health*, 21(1), 369-402. doi:10.1146/annurev.publhealth.21.1.369
- Sanson-Fisher, R. W., D'Este, C. A., Carey, M. L., Noble, N., & Paul, C. L. (2014). Evaluation of systems-oriented public health interventions: Alternative research designs. *Annual Review of Public Health*, 35, 9-27. doi:10.1146/annurev-publhealth-032013-182445
- Southern Ontario Aboriginal Diabetes Initiative. (2015). *Southern Ontario Aboriginal Diabetes Initiative*. Retrieved from <http://www.soadi.ca/index.html>
- Towns, C., Cooke, M., Rysdale, L., & Wilk, P. (2014). Healthy weights interventions in Aboriginal children and youth: A review of the literature. *Canadian Journal of Dietetic Practice and Research*, 75(03), 125-131. doi:10.3148/cjdpr-2014-006
- Trickett, E. J., Beehler, S., Deutsch, C., Green, L. W., Hawe, P., McLeroy, K., Miller, R. L., Rapkin, B. D., Schensul, J. J., Schulz, A. J., & Trimble, J. E. (2011). Advancing the science of community-level interventions. *American Journal of Public Health* 101(8), 1410-1419. doi:10.2105/AJPH.2010.300113
- Turner, S., Merchant, K., Kania, J., & Martin, E. (2012). Understanding the value of backbone organizations in collective impact: Part 1. *Stanford Social Innovation Review*. Retrieved from [http://www.ssireview.org/blog/entry/understanding\\_the\\_value\\_of\\_backbone\\_organizations\\_in\\_collective\\_impact\\_1](http://www.ssireview.org/blog/entry/understanding_the_value_of_backbone_organizations_in_collective_impact_1)
- Willows, N. D., Hanley, A. J., & Delormier, T. (2012). A socioecological framework to understand weight-related issues in Aboriginal children in Canada. *Applied Physiology, Nutrition and Metabolism*, 37(1), 1-13. doi:10.1139/h11-128