Indigenous health part 2: the underlying causes of the health gap

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Lancet 2009; 374: 76–85

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In this Review we delve into the underlying causes of health disparities between Indigenous and non-Indigenous people and provide an Indigenous perspective to understanding these inequalities. We are able to present only a snapshot of the many research publications about Indigenous health. Our aim is to provide clinicians with a framework to better understand such matters. Applying this lens, placed in context for each patient, will promote more culturally appropriate ways to interact with, to assess, and to treat Indigenous peoples. The topics covered include Indigenous notions of health and identity; mental health and addictions; urbanisation and environmental stresses; whole health and healing; and reconciliation.

Introduction

In the companion piece[1] Gracey and King explored some of the present trends in Indigenous health. In this second review we will consider more closely the underlying causes of Indigenous health disparities. Our major thrust is Indigenous perspectives on the causes of the poor health of Indigenous peoples, which are not the usual causes of health disadvantage—as brought out, for example, in the 1986 Ottawa Charter[2] and the work of the WHO Commission on Social Determinants of Health.[3] We focus to a considerable degree on the Indigenous people of North America, although we draw on the experiences of New Zealand and Australia as well. Within that context, much of our material is drawn from our Canadian perspective.

The idea of the analytical framework of this Review is that enabling the reader to arrive at an understanding of the interplay of the processes affecting Indigenous health in one specific context (North America), will allow readers in other contexts to better understand how Indigenous processes play out there. The main argument, implicit in our understanding, is that Indigenous social inequalities, which result from a combination of classic socioeconomic and connectivity deficits as well as Indigenous-specific factors related to colonisation, globalisation, migration, loss of language and culture, and disconnection from the land, lead to the health inequalities of Indigenous peoples. The specifics will vary across cultures, dependent on a range of external factors, but the principles are the same. Indigenous health inequalities arise from general socioeconomic factors in combination with culturally and historically specific factors particular to the peoples affected.

This analytical framework aligns with the key themes identified in the Symposium on the Social Determinants of Indigenous Health held in Adelaide in April, 2007.[4] The colonisation of Indigenous peoples was seen as a fundamental health determinant. Mowbray, writing in the report[4] said: "This process continues to impact health and well being and must be remedied if the health disadvantages of Indigenous Peoples are to be overcome. One requirement for reversing colonisation is self determination, to help restore to Indigenous Peoples control over their lives and destinies...Another fundamental health determinant is the disruption or severance of ties of Indigenous Peoples to their land, weakening or destroying closely associated cultural practices and participation in the traditional economy essential for health and well being."

Search strategy and selection criteria

As in part I of this Review:[1] "Indigenous", "Aboriginal", or "Aborigines", linked with "health", "nutrition", "malnutrition", "growth", "infants", "children", "pregnancy", "maternal health", "adolescents", "infections", "parasites", "hypertension", "cardiovascular disease", "diabetes", "renal disease", "dialysis", "alcohol", "drugs", "trauma", "accidents", "drowning", "poisoning", "homicide", "suicide", and "mortality". Additional search terms were: "American Indian", "Alaska Native", "First Nation(s)", "Inuit", and "Métis". Also, "mental health", "wellness", "resilience", "traditional medicine", and "indigeneity". Finally, we had access to various unpublished reports through Indigenous person-to-person contacts, a process commonly known in North America as the moccasin telegraph.

Notions of health, illness, and healing

Research into Indigenous health has been largely focused on non-Indigenous, rather than Indigenous, notions of health—ie, disease and treatment. By contrast, Indigenous peoples define wellbeing far more broadly than merely physical health or the absence of disease. For example, the *Anishinabek* (Ojibway) word *mno bmaadis*, which translates into living the good life or being alive well, encapsulates beliefs in the importance of balance. All four elements of life, the physical, emotional, mental, and spiritual, are represented in the four directions of the medicine wheel. These four elements are intricately woven together and interact to support a strong and healthy person.[5] Balance extends beyond the individual realm such that good health and healing also require that an individual live in harmony with others, their community, and the spirit worlds. For

Indigenous peoples, land, food, and health are key components of being alive well.[6]

Thus the Indigenous idea of sickness or illness tends to refer to an absence of wellbeing or an imbalance. Connections, relations, and family (as in the Māori concept of *whanau* or extended family), are among the many essential components of wellbeing. All these factors interact to form an Indigenous notion of healing processes that are very different from their non-Indigenous counterparts. Healing often involves consultation and public processes that can include offerings and gatherings as well as shared preparing and undertaking. Furthermore, more than the affected person and the healer can be engaged in these healing processes. For example, the Sundance is often undertaken on behalf of people other than one's self, and the ceremonies usually include various traditional healers (medicine men), firekeepers, drummers, and helpers. The understanding is that toxicity—in the environment, in the emotions, in the body—should be cleansed, a process in which whole communities can take part.[7]

The root causes of poor health—the social determinants of health—are generally to blame for the poor state of everyone's health,[8] but especially Indigenous health. Such determinants are universally thought to include the classic socioeconomic indicators defined, for example, by the 1986 Ottawa Charter for Health Promotion—income, education, employment, living conditions, social support, and access to health services. These factors certainly apply to the health of Indigenous populations (see, for example, reference 9). However, and further, Indigenous health is widely understood to also be affected by a range of cultural factors, including racism, along with various Indigenous-specific factors, such as loss of language and connection to the land, environmental deprivation, and spiritual, emotional, and mental disconnectedness. The definition of indigeneity is, therefore, inherently social, and includes major elements of cultural identity. Being isolated from aspects of this identity is widely understood to have a negative effect on Indigenous health.[3] Panel 1 describes the Indigenous groups of North America.

Panel 1: **North America's Indigenous peoples**

In continental USA, the Indigenous peoples are known collectively as Native Americans. There are some 560 federally-recognised Indian tribes—a total population of about 2·5 million. The largest of these is the Navajo/Dine Nation of New Mexico/Arizona, with around 210 000 members. Federally-recognised tribes receive various services from the Bureau of Indian Affairs and the Indian Health Service. In addition to these tribes, there are state-recognised tribes, who are not eligible for Indian Health Service support. For most tribes, a blood quantum of an eighth is set as the limit for membership.

In Alaska, the Indigenous peoples are collectively known as Alaska Natives. This group includes American Indians, Aleuts, and Eskimos (Inuit), all of whom are federally recognised. Native Hawaiians are the Indigenous people of Hawaii. They are recognised by the state but not the federal government. The Indigenous peoples of the USA represent about 1% of the total population.

In Canada, there are three Indigenous/Aboriginal groups recognised by the Constitution Act of 1982—First Nations, Inuit, and Métis. There are 633 First Nations groups with a population approaching 1 million. Métis number about 300 000 and Inuit about 60 000. The Aboriginal people of Canada represent about 4% of the total population. First Nations and Inuit receive a range of services from Indian and Northern Affairs Canada and from First Nations and Inuit Health (Health Canada). Métis people are not eligible for similar support.

For Native Americans and Canadian First Nations, the international border crosses between traditional tribal territories (eg, Iroquois, Ojibway, Blackfoot, and Salish peoples), and although linguistically and culturally diverse across North America, there are many commonalities on both sides (eg, the Navajo/Dine of the US southwest are linguistically related to the Dene of Canada's northwest). Most of the Indigenous cultural diversity in North America is seen west of the Rocky Mountains. Many Native Americans and Canadian First Nations view North America as one unit—ie, Turtle Island.

The Inuit of Canada's arctic regions are closely related to the Inuit of Greenland and Alaska. In Canada, there are four Inuit regions, Nunavut Territory (80% Inuit), and Inuvialuit, Nunavik, and Nunatsiavut. Greenland (Inuut Nunaat), part of Denmark, is mostly Inuit.

The Métis, descendants of European men and First Nations women in western Canada, are a unique Indigenous group with their own language and culture.

Identity and health

Many Indigenous peoples have an idea of the person that can be characterised as community-centred, since other people belonging to one's own community, the land, and its animals are all viewed as inherently a part of the self. Durie and colleagues[10,11] have said that the devastations that followed from the colonial experiences resulted from disruption (among much else) of the crucial bond with the land and the natural environment that is the key feature of indigeneity, and is mirrored by systems of knowledge and societal arrangements. Furthermore, "Cultural identity depends not only on access to culture and heritage but also on opportunities for cultural expression and cultural endorsement within society's institutions. Identity [as understood within an Indigenous context] is to a large extent a collective experience."[11] Moreover, Brant[12] has opined that in view

Panel 2: Indigenous language use

In Canada, according to the 2001 census, only about one in four Aboriginal people are able to converse in an Aboriginal language, and about 18% use an Aboriginal language regularly, more by elderly than by young people.[19] Language revitalisation is taking many forms—for example, the Māori practice of naming places, organisations, and events. This revitalisation is a powerful reclamation of Indigenous identity that has become accepted throughout most of Aotearoa (New Zealand). Further bolstering their identity is that the Māori language is taught in schools and is one of the country's two official languages, as well as the establishment of many national events that incorporate Māori culture. Hawaii is undergoing a similar revitalisation of its language.[20] In Canada, the Northwest Territories have 11 official languages, of which nine are Indigenous; one can use any of these languages in the legislative assembly.[21] Another Canadian example is Nunavut—its creation, its vision (self-government, self-determination) is Inuit, and its working language is Inuktitut.[22]

Panel 3: Mental disorders and addictions

In New Zealand, a survey showed that 51% of Māori develop a mental disorder at some point in their life.[24] The most common lifetime disorders were anxiety (31%), substance abuse (27%), and mood disorder (24%). Disorder prevalence was greatest in Māori with the lowest income and least education. Other surveys of Indigenous groups using symptom measures also indicate high rates of common mental disorders—for example, the 2002–03 Canadian First Nations Regional Health Survey[25] identified high rates of depression (18%) and alcohol disorders (27%). Although, relative to the general population, a small percentage of Indigenous people in Canada consume alcohol, the rate of disordered drinking is substantially higher. Inhalant use is increasing in young Indigenous people worldwide. In a survey of Inuit youth, individuals who had used solvents were eight times more likely to have made a suicide attempt.[26] As Kirmayer and colleagues[18] point out, service utilisation studies are usually only a low-end estimate of the true rate of distress in the community and might not provide an accurate profile of difficulties in the community. However, delay in help-seeking might well ultimately translate into higher service use.

of these losses, Indigenous peoples can often be overtaken by repressed hostility that comes from cultural prohibitions against showing angry behaviour. This hostility gives rise to explosiveness under the influence of alcohol, and to a high frequency of grief reactions.[12]

Identity and culture are not fixed in time or location but rather are in constant evolution. They are co-created and renegotiated within the context of broader society. And yet, the identities that have often been developed for Indigenous peoples generally incorporate colonial images (eg, the Noble Savage, an idealised notion of exotic innocence, which effectively renders Indigenous peoples as other, static, and fragile).[13] The resulting identities and cultures are pan-Indigenous, static, and interpreted through another society's values and agenda. Positive identity, identity based on deficits, and negative identity[11] are all seen within Indigenous populations, and are associated with predictable health outcomes. Counselling strategies used by Indigenous practitioners generally place emphasis on reduction of alienation, and introduction of positive cultural experiences.[14,15] Durie and colleagues[11] claim that, with the shortage of positive Indigenous representations and role models and authority figures, "it is a challenge not only to reclaim Indigenous identity, but to facilitate the development of healthy identities based on cultural strengths, not on disadvantage, disease burden and discrimination".

Traditional teachings and knowledge provide a basis for positive self-image and healthy identity. Elders are widely seen to be pivotal for Indigenous societies to regain their positive identity.[16] In Canada and in other colonised nations, many generations of Indigenous children were sent to residential schools. This experience resulted in collective trauma, consisting of, as pointed out by Kirmayer and colleagues,[17] the structural effects of disrupting families and communities; the loss of parenting skills as a result of institutionalisation; patterns of emotional response resulting from the absence of warmth and intimacy in childhood; the carryover of physical and sexual abuse; the loss of Indigenous knowledges, languages, and traditions; and the systemic devaluing of Indigenous identity. The legacies of these and other policies of forced assimilation are also seen in the present relationships of Indigenous peoples with the larger society. For example, the First Nations peoples gained the right to vote only in 1960, which is a shocking reminder for Euro-Canadians, who have been profoundly unaware of the social realities of Aboriginal peoples.[18] Such policies are key, not only in terms of identity (individual and community), but also with respect to the relationship with non-Indigenous peoples. All these assaults on identity contribute to a self-perpetuating circle that keeps Indigenous peoples where they are.

Language is crucial to identity, health, and relations (panel 2).[23] It is especially important as a link to spirituality, an essential component of Indigenous health. Throughout the world, Indigenous languages are being lost, and with them, an essential part of Indigenous identity. Language revitalisation can be seen, therefore, as a health promotion strategy.

Mental health and addictions

Many people hold the belief that "Identity is a necessary prerequisite for mental health.".[11] The wide variation in rates of suicide and other indices of distress across Indigenous communities (panel 3) suggests the importance of considering the nature of communities and the different ways that these groups have responded to the continuing stresses of colonisation, sedentary lifestyle, bureaucratic surveillance, and technocratic control. In all likelihood, the mediating mechanisms contributing to high levels of emotional stress, depression, anxiety, substance abuse, and suicide are closely related to issues of individual identity and self-esteem,[27,28] which in turn are strongly determined by collective processes in the community or larger political entities.[29,30]

Indigenous mental health constructs are fundamentally different from those that form non-Indigenous frameworks in developed countries. Counselling of Indigenous patients from the perspective of the cultural mainstream has been said to perpetuate colonial oppression.[31] Furthermore, many Indigenous people have little success with, and in fact often will not engage in, treatment that does not value their ways of knowing—especially those pertaining to health and wellness. This failure might account for, in part, the underuse of non-Indigenous-specific mental health services by Indigenous people, despite their disproportionately high burden of mental illness.

Intersecting metathemes of community, cultural identity, holistic approaches, and interdependence have been identified as integral to culturally appropriate counselling methodology. Some[32] have suggested incorporation of Indigenous values (respect, non-judgmentalism, and non-interference) and the medicine wheel, with its emphasis on balance in life and healing. A Canadian Government report[33] of mental illness and addiction had this to say: "Experts in the field suggest that, while many of the causes of mental illness, addiction and suicidal behaviour in Aboriginal and non-Aboriginal communities may be similar, there are added cultural factors in Aboriginal communities that affect individual decision making and suicidal ideation. These cultural factors include past government policies, creation of the reserve system, the change from an active to a sedentary lifestyle, the impact of residential schools, racism, marginalization and the projection of an inferior self-image."

There is a widespread victim-blaming ideology in terms of addictions—that those who are addicted have moral failings or are genetically inferior. This belief masks social causation and thereby absolves the larger non-Indigenous community of social responsibility, something that has been seen even in Indigenous communities.[34]

Research has shown that addictive behaviour has a strong inverse relation with socioeconomic status.[35] Addictive behaviours provide the rewards that disadvantaged people are not otherwise getting as a result of their diminished social opportunities. Addictive behaviours also provide an escape from chronic stressors and are a form of self-medication. For many Indigenous people, there are many layers of stressors—racism, poverty, poor education, unemployment, family instability, and residential instability. Learned helplessness, rather than active coping, has also been seen in response to many of these stressors.[36]

Indigenous peoples worldwide have undergone rapid culture change, marginalisation, and absorption into the global economy, with very little respect for their autonomy. These profound transformations have been linked to high rates of depression, alcoholism, suicide, and violence in many communities, with the most pronounced effect on youth.[37] Indigenous peoples everywhere share similar social, economic, and political predicaments that have resulted from colonisation. Despite these challenges, however, some communities have done well, as pointed out by Kirmayer and colleagues,[18] enjoying high levels of health and wellbeing and continuing to transmit their cultural knowledge, language, and traditions to the next generation.

Effects of rural-urban migrations

Urbanisation is part of the continuing transformation of Indigenous peoples' culture, perhaps its most apparent manifestation (panel 4). However, possibly more important than urbanisation per se is residential instability, which is marked by frequent migrations back and forth from cities to reserve communities, as well as by high mobility within cities. This instability probably diminishes the wellbeing of urban Indigenous peoples[40]—ie, high mobility necessarily weakens whatever social cohesion might otherwise exist in communities and neighbourhoods where large concentrations of Indigenous people live.

Residential instability is associated with family instability and with a high proportion of female lone-parent families with low incomes. Individuals and families living in residential instability experience great social difficulties, such as poor education attainment, divorce, crime, and suicide, which in turn lead to even greater social disintegration.

Panel 4: Urbanisation

In New Zealand, Māoris have become overwhelmingly (83%) urban,[38] which is also true for the Aboriginal people of Australia, who do not generally have a formal land base (roughly 75% urban in 2001).[39] In the USA and Canada, in groups with a recognised land base (reservations), the rate of urbanisation is about 50%. The most urbanised groups are those without recognised status—in Canada, non-status Indians and Métis, with 73% and 66%, respectively, living in urban areas.[40]

Figure: **An Indigenous view of urbanisation and its effect on Indigenous health practices**
Dawn Marsden, PhD, National Aboriginal Health Organization, Ottawa (reproduced by permission of the artist). These images were painted by Dawn Marsden, a member of the Mississaugas of Scugog Island (Ontario). The scenes represent a life cycle: (A) the beginning, the unspoiled Indigenous world of culturally integrated health practices; (B) the migration to the city and the death of the spirit; (C) the revitalisation of isolated Indigenous health practices; and (D) the return to a state of balance through the communally supported transmission of *mino bimaadziwin* or good-life practices. These images were drawn by Marsden as part of her research presentation at the 2003 Gathering of Graduate Students in Aboriginal Health, sponsored by the CIHR Institute of Aboriginal Peoples' Health, held in Edmonton, Canada.[41] After the gathering, Marsden gifted the paintings to the Alberta ACADRE Network, and they now hang proudly in the ACADRE office at the University of Alberta.

As suggested by Kirmayer and colleagues,[18] a major challenge for urban Indigenous people is to maintain social cohesion through collective activities and community strategies that reinforce Indigenous cultural identity and develop urban institutions that incorporate Indigenous values (see figure). This challenge is made more complex by the multinational or multitribal nature of many urban Indigenous populations, which further reduces social cohesion and the ability to establish Indigenous institutions. Instead, one ends up with many generic pan-Indigenous cultural programmes that do little to help with identity. Consequently, the process of urbanisation often results in fragile, diverse communities coming together, all carrying definitions of themselves

and each other, as provided by colonial and the non-Indigenous others.

Whether in cities or rural or reserve communities, the burden of distress and despair wrought by generations of colonial oppression often renders relationships and social cohesion within and between Indigenous communities fragile, and internal critics face tremendous challenges in their efforts to develop modes of constructive social and political criticism. However, ignoring or keeping internal inequalities to a minimum risks perpetuating injustices paid for in terms of poor health and high levels of social suffering in those who are most marginalised and exploited: women, Elders, youth, two-spirited people (ie, male or female homosexuals), and disabled and ill people.[18]

Before the past few decades, various policies ensured that Indigenous peoples were excluded from urban centres.[18] For example, in Canada until the 1950s, Indians, as they were then known, had to ask for permission from the Indian Agent to leave the reserve to seek employment or education. Enrolment in a higher education meant the loss of Indian status and exclusion from the reserve. Now, however, the increased urbanisation could be caused in part by the very programmes that have now been put in place to educate and employ Indigenous people, combined with the absence of economic development and the erosion of resources in their home communities burdened with expanding populations.

Many push-and-pull factors determine the patterns of rural-urban migration in Indigenous peoples. The push factors that prompt individuals to move from their traditional communities include unemployment and the consequent poor social and economic conditions; boredom and low quality of life; scarcity of housing, health facilities and educational opportunities; and political pressures. Factors pulling people back to their communities include the failure to find employment or otherwise thrive in the city, the absence of affordable or acceptable housing, and the perception that rural communities are better places to live and raise children.[18] Emotional and spiritual connections to the land and culture are also major factors drawing people back to their origins.

Loss of land and destruction of environment

A Canadian Government survey in 2001 showed that two-thirds of First Nations reserves had water supplies that were at risk of contamination. In the 2001 Aboriginal Peoples Survey,[19] 34% of Inuit living in the north, 19% of Aboriginal people in rural areas, and 16% of those in urban areas reported that there were times in the year that their drinking water was contaminated. Aboriginal people are similarly much more likely than the non-Aboriginal population to live in crowded houses. Many Indigenous groups believe that the devastation of their lands through globalisation and commercial exploitation and climate change is equivalent to a physical assault. Sioui[42] believes that "Damage to the land, appropriation of land, and spatial restrictions all constitute direct assaults on the person." Kirmayer and colleagues[18] thus point out that the widespread destruction of the environment through commercial developments should be understood as attacks on Aboriginal individuals and communities that are equivalent in seriousness to the loss of social role and status in a large-scale urban society. As traditional custodians of the land, dispossessed Indigenous peoples have lost their primary reason for being. Additionally, these investigators,[43] in their studies of the Inuit of northern Canada, showed that mental health and healing can be powerfully affected by eating country food, hunting, and camping on the land. These Indigenous notions of an environmental or land-based psychology offer an important complement to increasingly contextualised models of the person that have come to prominence in contemporary mental health theories.

Indigenous health and gender issues

The mobility and instability affecting Indigenous peoples could have particular relevance to Indigenous men's health. Isolation, alienation from families and society, and incarceration are all issues that particularly affect Indigenous men's health.[44] Indigenous people have disproportionately high rates of incarceration;[45] this is common to developed nations, and possibly a worldwide occurrence. After release, such men most frequently want to go home, but their communities often reject them.

In the USA, Kinzie and colleagues[46] showed that 31% of people in a northwest coast Indian village met criteria for a psychiatric diagnosis. A striking sex difference was recorded, with nearly 46% of men being affected, compared with only 18% of women. In a large-scale survey of rural Indian reservations, Beals and colleagues[47] showed that the overall rate of psychiatric disorders in two tribes was similar to that in the general population; however, alcohol dependence and post-traumatic stress disorder were more frequent in the American Indian communities, while major depressive disorder was actually seen less frequently. In view of the rate of social difficulties and evident distress in the communities, the investigators speculated that culturally mediated ways of expressing depression might not be identified by standard surveys. Rates of exposure to potentially traumatic events were very high, particularly in women and girls, indicating an increasing frequency of sexual and domestic violence.[18,48]

Indigenous women have been especially marginalised by colonisation and discrimination in that maternal heritage has not generally been recognised by developed society. Before European contact, Indigenous women and men were much more equal in their different roles. In Canada, before 1986, Indian women automatically lost their Indian status when they married a non-Indian. They were forever excluded from living on the reserve,

even if the marriage was dissolved. Indigenous women are all too often left with the responsibilities of child-rearing for which they receive little support, neither from society at large nor, in many cases, from their own communities.[49] Historically, grandparents and the extended family helped to raise the children in their community.

Elder health and healthy ageing

We need to distinguish between Elders and elderly people. Both are key in Indigenous societies. Elders are those who have shown wisdom and leadership in cultural, spiritual, and historical matters within their communities, and might not necessarily be old. Elders represent an essential connection with the past; they are keepers of the community knowledge and supporters of its collective spirit.

Multifarious issues converge to promote increasingly poor health with advancing age. Worldwide, Indigenous populations are young, with proportionately fewer elderly people. Many elderly people have experienced residential schools, lost children to non-Indigenous adoptions, and lived with the consequences of policies (government appointed leadership, loss of language, loss of culture), which reduced the role of Elders—all within their lifetimes. Many of them have not had Elder training (separation from their families and communities meant that they did not experience their grandparents raising them, consulting the Elders in their communities) and are themselves weakened or sick. As Elders, they "need to address the anger they are carrying from attending residential school, growing up in foster homes, or being adopted out of the community. They might just heal themselves and our communities in the process."[50] Increased individualism and residential instability (urbanisation and sedentarisation) have all contributed to the diminished role of Elders in Indigenous societies.

Whole health and community health

Holistic health has been defined as "the vision most First Nations peoples articulate as they reflect upon their future. At the personal level this means each member enjoys health and wellness in body, mind, heart, and spirit. Within the family context, this means mutual support of each other. From a community perspective it means leadership committed to whole health, empowerment, sensitivity to interrelatedness of past, present, and future possibilities, and connected between cultures."[51] The interactions between mental, emotional, and spiritual stress and physical health are relevant and important to Indigenous health. For example, the increasing rates of diabetes in various Indigenous populations have been associated with environmental factors related to the rapid sociocultural changes that occur with migration to the urban setting and acculturation.[52,53] Interactions and comorbidities between mental and physical health are also important. Mental health disorders are known to amplify the effects of physical disorders on functionality.[54] Interactions between disability and mental health have been reported in the 2002–03 Canadian First Nations Regional Health Survey,[25] and suicidal ideation was more frequent in those who reported poor or fair health status than in those with good or excellent self-reported health.

Like illness, wellbeing is similarly multidimensional within the person, including a balance between the person and others—their family and community—and the environment. The work of Chandler and Lalonde[29,55] identified community factors, related to empowerment and self-control, which were protective of health, in the particular case of youth suicide in British Columbian First Nations. Their work emphasised two important aspects with respect to the health of communities. For youth suicide, although the rates overall were well above the rates for the population as a whole, there was no one Indigenous suicide rate, ranging from many times the national average to zero. Some communities had not had any suicide in more than a decade. The variation between communities was key to understanding the underlying factors. Communities with programmes and measures of self-determination had the lowest suicide rates.

Social capital and resilience are also important relational notions that affect health. Social capital has been defined in various ways, and refers to sociability, social networks, and social support, trust, reciprocity, and community and civic engagement.[56] Resilience—what keeps people strong in the face of adversity and stress—has many Indigenous facets: spiritual connections, cultural and historical continuity, and the ties with family, community, and the land.[57]

Politics of Indigenous health

Kirmayer and co-workers[18] report that continuing transformations of identity and community have led some groups to do well, whereas others face catastrophe, and that, in many cases, the health of the community seems to be linked to local control and cultural continuity. They go on, "Attempts to recover power and to maintain cultural traditions must contend with the political, economic, and cultural realities of consumer capitalism, technocratic control and globalization".[18]

As stated by Durie and colleagues,[11] the means by which disadvantaged populations worldwide are enabled to control their destinies is crucial to self-esteem and health: "Autonomy is closely linked with self esteem and the earning of respect. Both are basic and linked. Low levels of autonomy and low self esteem are likely to be related to worse health." "Health professionals need to be aware that interventions within the arena of indigenous health necessarily have political implications. Involvement in this area of professional practice often involves challenging government policy and community attitudes which have the potential to

impact negatively on social, emotional, cultural and spiritual well-being."[12]

Canada, the USA, Australia, and New Zealand are consistently placed near the top of the UNDP's human development index (HDI) rankings, yet all have minority Indigenous populations with poor health and social conditions. Between 1990 and 2000, the HDI scores of Indigenous peoples in North America and New Zealand improved at a faster rate than the score of the general population, narrowing but not closing the gap in human development. In Australia, by contrast, the HDI scores of Indigenous peoples decreased while that of the general population improved, widening this gap. Although these countries have high human development according to the UNDP, the Indigenous populations that reside within them have only medium levels of human development. As Cooke and colleagues[58] indicate, this inconsistent progress in improving the health and wellbeing of Indigenous populations points to the need to increase our efforts in the social and economic realms, as they relate to health.

Services and support for health and social programmes are typically fragmented in Indigenous populations (see the Kirby Report[59] in Canada), which is true in terms of the different levels of government, and different departments and divisions, all generally working without collaboration. Fragmentation results in the isolation of symptomatic issues—addiction, suicide, fetal alcohol syndrome, poor housing, and unemployment—followed by the design of stand-alone programmes to try to manage each issue separately. Many question the role of government in providing services, when Indigenous people should be supported in the development of their own solutions, rather than having solutions imposed on or provided for them. Such a change would foster the development of more culturally appropriate and more effective services and support.[59]

Although the need to improve overall socioeconomic conditions of vulnerable populations is self-evident, the actual health benefits that will result are less obvious. Intervention research into the social determinants of health is needed. The health benefits that will accrue from a social determinants intervention need to be delineated. Research is also needed to monitor the health benefits of interventions such as programmes to improve educational attainment in Indigenous populations, and programmes to revitalise languages and to support cultures. Such programmes should be viewed as complex clinical interventions, and health researchers and clinicians should work with social scientists and with Indigenous communities themselves to assess outcomes that will allow for knowledge translation to other communities.

We should be concerned about the overpoliticisation of poor health and excessive blaming of external factors for the state of Indigenous health.[60] As pointed out by Helin,[34] a Canadian First Nations person, Indigenous peoples should reduce their culture of financial and psychological dependency on the external system, and take more control over their own economic and social recovery, which would inevitably include striving for better health.

Panel 5: Quotes from the Aboriginal Healing Foundation[50]

"Some will need personal reconciliation to be able to move forward from the pain of the experience. There are several layers: collective, spiritual, mental, physical." (p 305)

"In talking about reconciliation and healing, we cannot forget that it is the strong ones that need to initiate. The compassion of our grandparents shows us the way." (p 317)

"If reconciliation is to work, restoration of Indigenous languages, cultures, social structures, and traditional institutions for governance must occur." (p 324)

"Reconciliation does not begin and then end on certain dates; it is a process of acknowledging and coming to terms with oppression of the people and moving forward. Every country that has gone through a truth and reconciliation process has done so because of oppression. The fear is that the government will see the residential schools as the only reason for the process and say, 'we have discussed this, we have offered compensation, and it is time to move on.' There is potential for this commission to go much deeper." (p 350)

There is hope—some of the initiatives that result in increased self-government and self-determination seem to be working. Interventions at the level of the community can lead to improvements in individual health.[55] There are many programmes and initiatives, and these take many different forms. Development of capacity and infrastructure will promote extension and replication elsewhere in locally appropriate fashion. Indigenous communities appreciate even more than outsiders the programmes that need to be undertaken.[61]

Reconciliation and healing

In Australia, and then in Canada, the year 2008 saw apologies on the part of the federal governments for their assimilationist policies.[62,63] After these apologies, and indeed in other countries where apologies have still not been made, healing has to occur. The Australian Government is committed to closing the 17-year gap in Aboriginal life-expectancy. Canada has set up a Truth and Reconciliation Commission. Panel 5 shows quotes about reconciliation from the Aboriginal Healing Foundation.[50]

For Indigenous society healing to occur, there is a need for national and international collaboration with respect to health research—necessary resources, necessary perspective to identify commonalities in difficulties and solutions. True healing cannot occur until mainstream society also heals—together.

Are we making progress?

Provision of these Indigenous perspectives on health and the social contexts within which many Indigenous people live might be useful to medical practitioners who treat Indigenous patients. Having framed this Review around how Indigenous notions of health inequalities can help to explain the inequalities in a particular context, we hope that the principles included in this type of analysis might also apply to non-Indigenous ethnic groups whose health deficits are related to identity-based considerations, in the context of ethnic inequalities of health more generally.

In 2006, *The Lancet* published a Series on Indigenous health, covering the former New World British colonies, Latin America, Africa, and Asia. The Reviews[64–67] pointed out the need for increased surveillance, research intensity (particularly related to policy), capacity building, and community engagement and partnership in dealing with Indigenous health issues. These reports have drawn a lot of attention, and have sensitised many health professionals and researchers, who are now taking up the challenges of Indigenous health. Not enough time has passed, however, to see real results in terms of health indicators. Nevertheless, there are several positive indicators, perhaps as much in the political arena as in the health sector itself. There are the apologies from the Governments of Australia and Canada. There is the new administration in Washington, led for the first time by a man who is not white. There are international Indigenous health research agreements involving agencies in Canada, New Zealand, Australia, the USA, Mexico, and the circumpolar nations. Indigenous political organisations have taken on leadership roles in health, such as the Assembly of First Nations (Canada) partnership in the Global Indigenous Stop-TB programme.[68] The UN Declaration on the Rights of Indigenous Peoples[69] includes the right to "the enjoyment of the highest attainable standard of physical and mental health" (Article 24). We can only hope that all nations of the world will sign on and make the declaration operative.

Contributors

MK was the primary author; all authors contributed to the search of published work and writing.

Conflicts of interest

We declare that we have no conflicts of interest.

Acknowledgments

We thank Michael Chandler and Angeline Letendre for reading and commenting on draft versions of the manuscript. Michael Chandler and Laurence Kirmayer kindly provided us with advance copies of manuscripts in press. Special thanks to Dawn Marsden for permission to reproduce her pictorial essay.

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