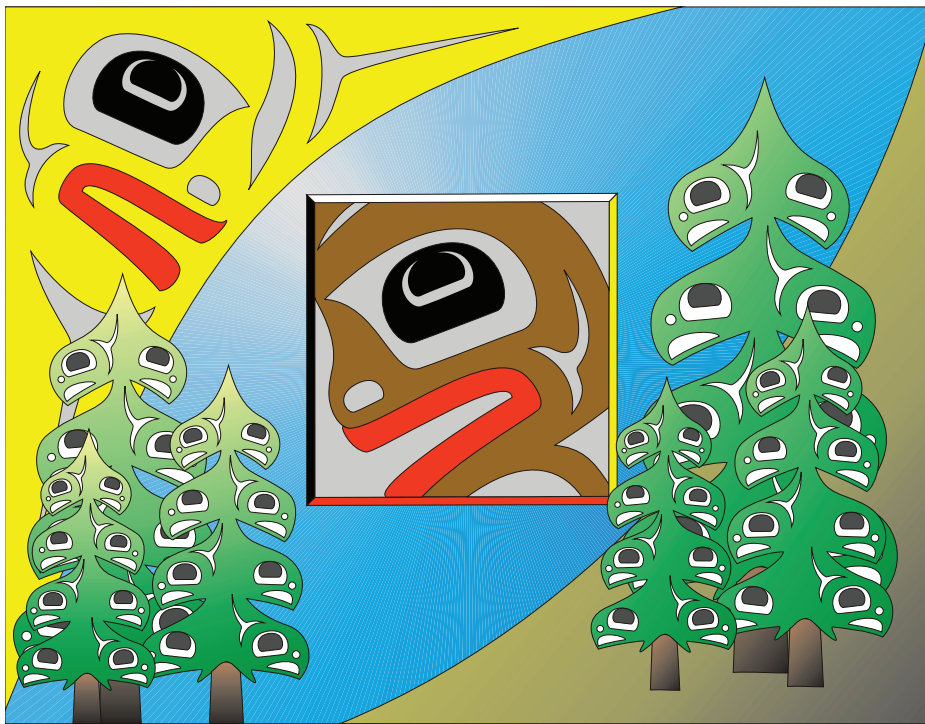# Indigenizing Outcomes Measurement

A Review of the Literature and Methodological Considerations

BCAAFC
BC ASSOCIATION OF ABORIGINAL
FRIENDSHIP CENTRES

Cover art provided by Jamin Zuroski, who is of Ukrainian and Namgis First Nation descent. Jamin's artistic talents shine through BC communities with his traditional and contemporary style. Jamin is supporting the Indigenous Outcomes Measurement Project through depicting the development of the Framework through art. In this print, created in February 2010, Jamin explains:

"…We shine light on this Framework like the Sun giving new life to the future ahead. The Child is looking down at their reflection in the Water with the hope of looking up again, feeling proud about being Indigenous and embracing their Family Connections and Cultural Heritage. The Cedar Trees growing from the Earth represent the Family and Friends that are involved in the creation of the Indigenous Outcomes Measurement Framework. They include the Children and Families within our surrounding Communities, Urban Service Providers, and Government. The Salmon Heads in the trees represent the strength and intuition for us as a people. Working together gives us the opportunity to collectively grow strong as we give our best for our Indigenous children."

Executive Summary

In response to the disproportionate number of Aboriginal children growing up in foster care in British Columbia, the BC Association of Aboriginal Friendship Centres (BCAAFC) has embarked on an initiative designed to strengthen urban Aboriginal communities in healing the intergenerational effects of residential school and colonization. Entitled *Standing Up for Our Children,* the initiative involves developing an Indigenous framework designed to enhance learning opportunities, increase service quality, and track and monitor overall outcomes for urban Aboriginal children, youth and their families.

This report, *Indigenizing outcomes measurement: A review of the literature and methodological considerations,* is the first-phase literature review for the Indigenous Outcomes Measurement Framework (IOMF) project. The report aims to broaden knowledge and understanding toward the development of an Indigenous outcomes measurement framework in BC's urban Aboriginal child and family services context. The literature review summarizes learning from Indigenous frameworks in other jurisdictions throughout Canada, the US, Australia and New Zealand and explores the implications of an Indigenous approach to outcomes measurement.

Beginning with a brief introduction to the identity of the urban Aboriginal community, the following report tracks the evolution and context of Indigenous outcomes measurement systems. Using an Indigenous methodology to both interpret and develop an Indigenous outcomes measurement framework, an alternative approach to mainstream knowledge-building is established. While mainstream Western knowledge is firmly based on observable facts, Indigenous knowledge stems from other sources such as traditional ways of knowing passed down through stories and ceremonies throughout the generations. Indigenous methodologies offer a way of seeing and working within both the Indigenous and dominant worldviews, allowing for opportunities to learn from Indigenous approaches, as well explore the potential benefits of mainstream outcomes measurement systems. An Indigenous research methodology can help to ensure that research remains relevant to Aboriginal communities, as it supports the movement towards self-determination. "Fundamental to the exercise of self-determination is the right of peoples to construct knowledge in accordance with self-determined definitions of what is real and what is valuable" (Brant Castellano, 2004, p.102).

An Indigenous methodology will influence the components of an outcomes measurement framework, including:

- Accompanying values and purpose of measurement
- Language used to describe outcomes and indicators
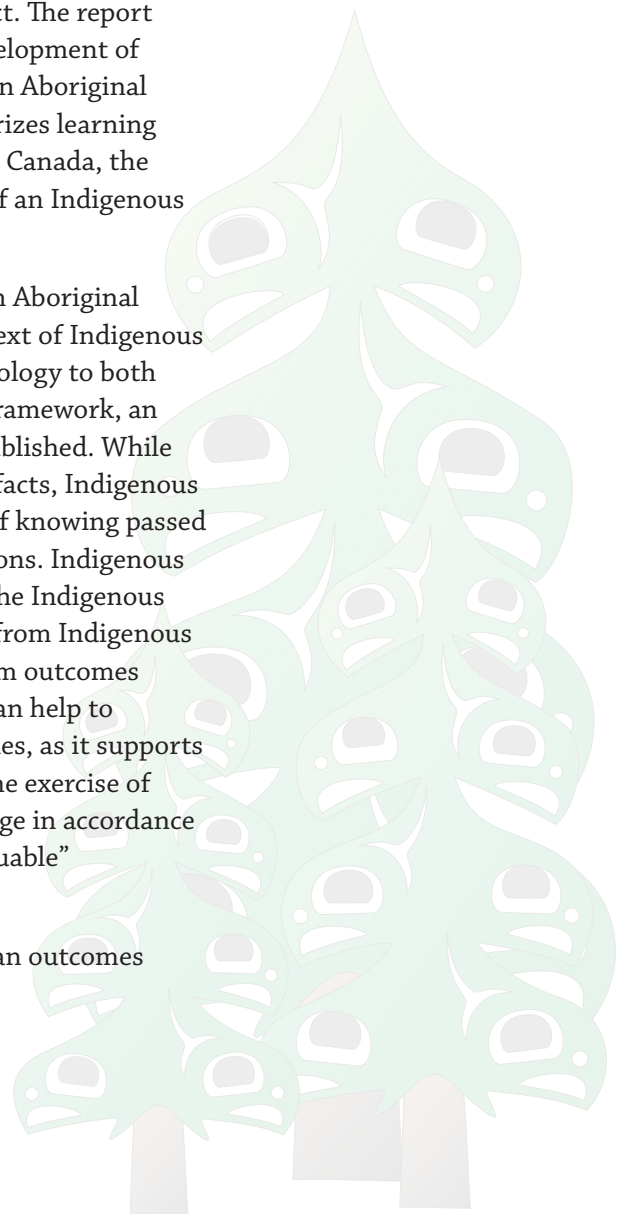
- How evidence is defined and where it will be used
- Whose needs are met by engaging in measurement
- Necessary community partners involved in measurement
- Limitations of measurement

Nine Indigenous outcomes measurement frameworks were located in the literature spanning the period 2004 to 2009. The frameworks were from Canada, New Zealand, Australia and the US, in the areas of health, mental health, human services and Aboriginal learning. The frameworks include:

1. Canada's First Nations Regional Longitudinal Health Survey *Cultural Framework* (2006)

2. The Canadian Council on Learning's *Holistic Lifelong Learning Measurement Framework* (2009)

3. Saskatchewan's *Community Health Indicators Framework* (2006)

4. Assembly of First Nations *Health Reporting Framework* (2005)

5. New Zealand's *Meihana Model* for Māori mental health (2007)

6. New Zealand's *He Korowai Oranga Monitoring Framework* for health (2005)

7. Australia's *Aboriginal and Torres Strait Islander Health Framework* (2006)

8. United States' *Circles of Care Measurement Framework* for American Indian and Alaskan Native health (2004)

9. The *Health and Social Indicator Framework* for Indigenous community health research for Canada, New Zealand and Australia (2006)

Based on the review of the available literature, a number of significant methodological issues to interpreting and/or developing Indigenous frameworks were gleaned.

First of all, the process of defining an "Indigenous outcomes measurement framework" can be a complex task, as the term itself is defined in various ways throughout the literature. Although most of the Indigenous frameworks purported to be "Indigenous," there was a lack of specificity as to what this term actually referred to. Outcomes measurement frameworks have typically been constructed using a Western European social indicator reporting system as a foundation, and are inherently value laden in their development. Analysis suggests that there were three overall models of an Indigenous outcomes measurement framework:

1. **Western IOMF model.** Principally driven by a Western worldview agenda, this version of an Indigenous outcomes measurement framework refers to a tool that is designed to measure and compare universal outcomes between Indigenous populations and non-Indigenous populations.
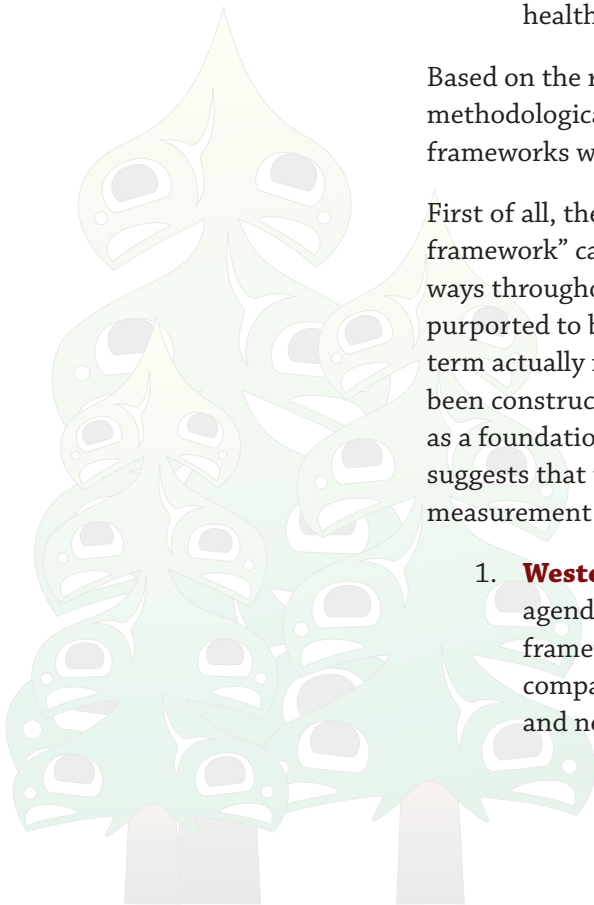
2. **Western IOMF with Indigenous input model**. This type of framework is largely driven by a Western worldview and refers to a tool developed by non-Indigenous people, with possible Indigenous input. This model contains universal outcomes for Indigenous and non-Indigenous populations, as well as a number of unique outcomes thought to pertain specifically to the Indigenous community.

3. **Indigenous IOMF model**. This model refers to a tool designed specifically by and for the Indigenous community, anchored in an Indigenous worldview. If the Indigenous designers of the tool choose to use universal outcomes, there is clear evidence that the outcomes support the Indigenous agenda.

Other methodological considerations include the connection between the motivation for measuring outcomes and the way in which evidence is subsequently defined, gathered, measured and utilized. For example, when outcomes measurement systems are implemented for the purpose of informing community practice and enhancing program quality, systems are more likely to benefit from community relevant indicators and outcomes when the findings are fed back into the community. Outcomes measurement systems are also commonly driven by the need for financial accountability which can result in less flexibility to pursue innovative and/or community driven approaches to measurement.

The way in which evidence is defined in an Indigenous context will influence the choice to include traditional or community derived indicators. Traditional or cultural indicators have been described as "constants that are felt, seen, touched, smelled, and heard in daily life yet are assumed to be immeasurable for various reasons" (Assembly of First Nations, 2005). In general, traditional indicators are difficult to measure in mainstream contexts, as Indigenous knowledge stems from traditional ways of being, long before first contact with Western Europeans and the emergence of the Western worldview in community supports for children, youth and families. Any selection of indicators for a measurement framework in an Indigenous context will need to consider the diverse reality of Aboriginal peoples in Canada and the various data sources associated with First Nations, Métis and Inuit communities.
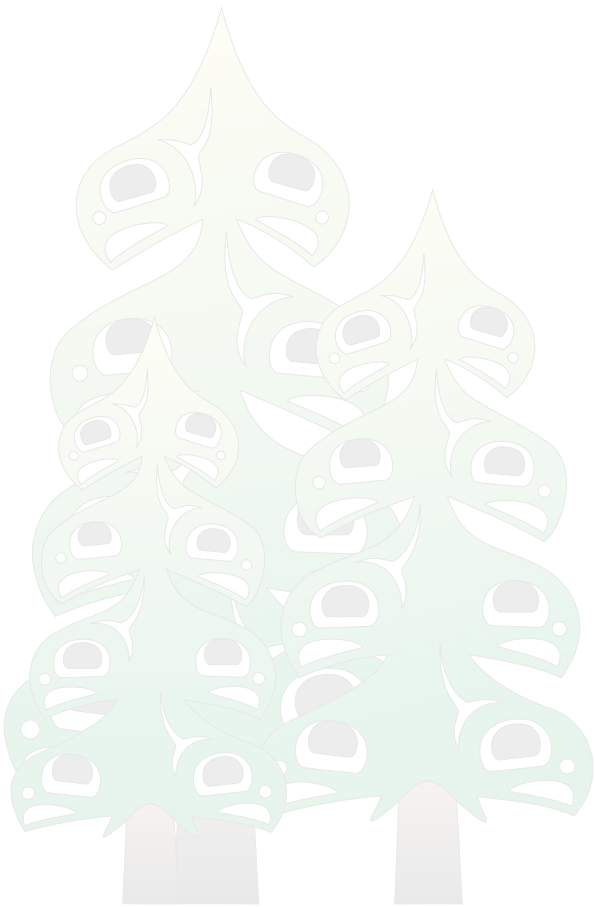
Lastly, outcome measurement systems require significant resources and capacity to develop, implement, and maintain effectiveness. The literature indicates previous experience with developing and implementing Indigenous outcomes measurement frameworks can be demanding and time-consuming, and may interfere with programs' existing operating frameworks.

Overall, there are myriad factors associated with developing an Indigenous framework for measuring outcomes. Remaining anchored in an Indigenous worldview can provide the way forward to examining these numerous methodological issues, spanning from the objectives and purpose of measurement; methods used to collect, count and validate evidence to tell a meaningful story; and intentional usage of language to express the ideas and values embedded in a framework.
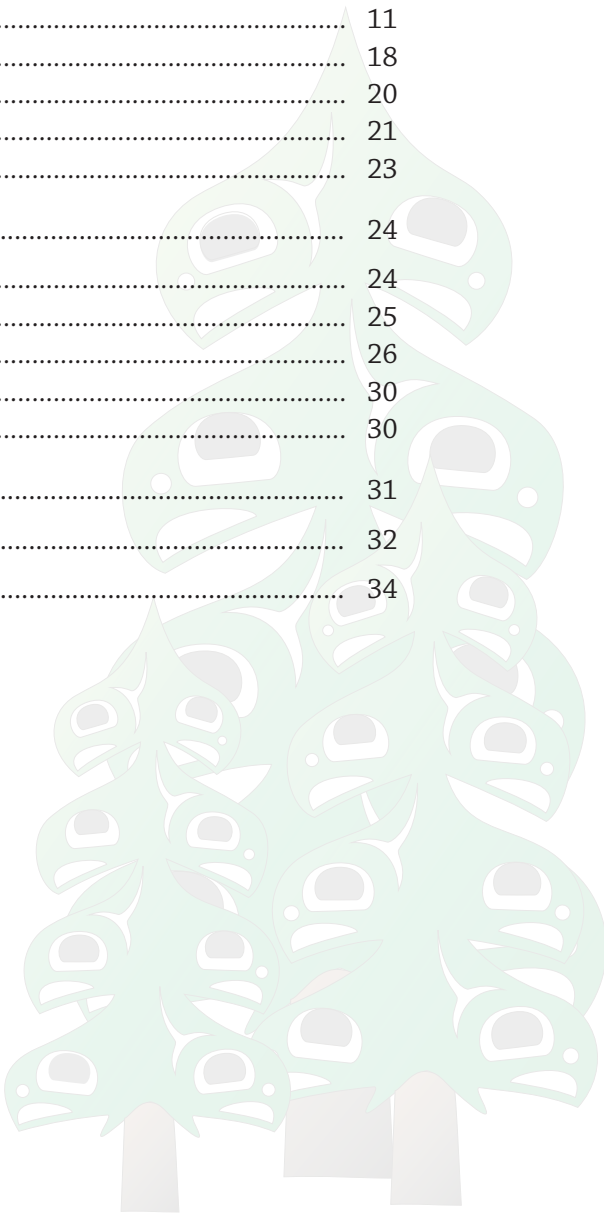
The inherent inclusion of culture, tradition, and multiple ways of knowing in an Indigenous approach to outcomes measurement may result in a product that looks very different from more mainstream frameworks. That is, Indigenous approaches to measurement will require ample time, community input, and ingenuity towards developing a system that may stand in stark contrast to a Western-European approach to outcomes measurement.

An Indigenous approach to developing a framework for outcomes measurement will help to ensure that measurement, in whatever form, will remain relevant to the Aboriginal community it is designed to serve. When building an Indigenous framework for measuring outcomes, Indigenous researcher Shawn Wilson reminds us that an Indigenous approach "…is the knowing and respectful reinforcement that all things are related and connected…the voice from our ancestors that tells us when it is right and when it is not." (Wilson, 2008, p.60).

Contents

Introduction

In response to the disproportionate number of Aboriginal children growing up in foster care in British Columbia, the BC Association of Aboriginal Friendship Centres (BCAAFC) has embarked on an initiative designed to strengthen urban Aboriginal communities in healing the intergenerational effects of residential school and colonization. Entitled *Standing Up for Our Children,* the project is founded on an Indigenous approach to service delivery and includes the Indigenous Outcomes Measurement Framework (IOMF). The IOMF explores an Indigenous approach to measurement designed to enhance learning opportunities, increase service quality, and track and monitor overall outcomes for urban Aboriginal children, youth and their families.

The time for an Indigenous approach to urban child and family service delivery has never been greater: the number of Aboriginal children in foster care in British Columbia is at one of the highest rates in the history of BC's child welfare system. Compared to the national average, the percentage of Aboriginal children being taken into foster care in this province stands at 10 to 20 per cent above the rest of Canada.[1] Federal data show that while approximately five per cent of First Nations children living on-reserve are in foster care, the rate of children in foster care residing off-reserve is estimated to be almost eight times higher.[2]

The IOMF, currently under development, is designed to assess and monitor outcomes for Aboriginal children, youth and families living in urban areas and enhance service learning, effectively decreasing the number of children being apprehended and placed into foster care. The IOMF will help to inform service providers and communities about effective strategies and healing practices, foster a culture of community learning, and strengthen the movement toward indigenizing child welfare practices.

The IOMF is the first of its kind for Aboriginal community-based child and family organizations in BC. It is currently in phase one, the development stage, made up of three main components: applied research; consultation; and learning from other jurisdictions. Based on the findings in the first phase, the IOMF will be implemented in a practice site, undergo evaluation and further consultation, and result in an eventual provincial roll-out plan.

This report, *Indigenizing outcomes measurement: A review of the literature and methodological considerations*, is the first-phase literature review for the IOMF. It has been written for a wide audience, with the aim of broadening knowledge and understanding toward the development of an Indigenous

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1   Auditor General, 2008
2   Auditor General, 2008

outcomes measurement framework in child and family services in BC's urban Aboriginal context. The literature review summarizes learning from Indigenous frameworks in other jurisdictions throughout Canada, Australia and New Zealand. Through exploring examples of measurement frameworks in Aboriginal contexts throughout Canada and abroad, the report is designed to provide a contextual overview of a selection of Indigenous measurement systems. The report aims to inform our current knowledge and understanding toward the possibilities and limitations of measuring outcomes from an Indigenous worldview.

The report is written in three sections. The first section provides an analytic lens designed to deepen understanding toward Indigenous measurement tools. Beginning with an introduction to the identity of the urban Aboriginal community, section one offers a context for outcomes measurement systems and a brief section on Indigenous knowledge. Section two reviews current Indigenous measurement frameworks identified in the literature from Canada, New Zealand and Australia. The third section of the report offers some methodological considerations for constructing Indigenous measurement frameworks.

Methods used to locate literature

Information for this report was gathered through research sources that focused primarily on Indigenous outcomes measurement frameworks, as well as on Indigenous methodology with respect to measuring outcomes. Although Canada was the primary source for Indigenous Frameworks, the scope of literature was expanded to three other countries with both Western European settlers and Indigenous populations engaged in the struggle for self-determination: The United States, Australia and New Zealand. It should be noted that this review of literature is not comprehensive and is phase one of a two-phase literature review process. The phase two literature review will be conducted in the summer of 2010 and further examine other Indigenous frameworks that may not be readily available in the published or online literature.

Questions guiding the search for literature included:

1.   What constitutes an Indigenous outcomes measurement framework?
2.   What current Indigenous frameworks are being used for measuring outcomes in health and human service programs in Canada and abroad?
3.   What methodologies are employed to build Indigenous outcomes measurement frameworks?

The search for published and unpublished literature yielded a limited number of reports in the area of Indigenous outcomes measurement frameworks. This finding has also been noted by a number of researchers.[3] The majority of available Indigenous frameworks were noted as emerging from a growing body of knowledge in the health sector. For an in-depth description of the literature review methodology, please refer to Appendix 1.

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[3]   Assembly of First Nations and Social Development Secretariat, 2005;. Anderson & Smylie 2009; Marks et al., 2006; Smylie & Anderson., 2006
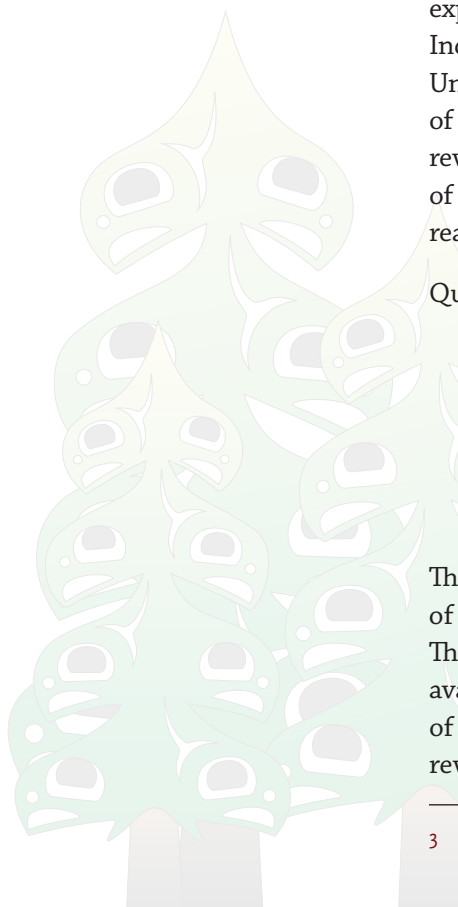
Section One
Analytic Lens

When considering the urban Aboriginal community service context, it is important to examine a number of factors that will influence the relevance and utility of an outcomes measurement framework. This section provides a range of considerations related to constructing an analytic lens for reviewing the literature on Indigenous measurement frameworks. Elements such as the identity of the urban Aboriginal community, context and evolution of outcomes measurement frameworks, and finally, an Indigenous research methodology, will influence the interpretation and development of various Indigenous frameworks designed to measure outcomes.

The Identity of the Urban Aboriginal Community in BC

The "urban Aboriginal" population in British Columbia refers to Aboriginal people living off-reserve, representing well over 60 per cent of the province's Aboriginal population[4]. BC has the second-largest off-reserve Aboriginal population of any province in Canada. The urban Aboriginal community consists of a vast cultural and linguistic mix of Canada's 612 different First Nations, Métis and Inuit people. The diversity of the off-reserve Aboriginal population differs from on-reserve First Nations communities, which are often more homogeneous and typically consist of one dominant nation[5].

Research and data illustrate that there has been a measured migration of Aboriginal peoples from reserves to urban and rural communities over the last two generations. This migration began in the early 1960s with amendments to the *Indian Act* that lifted previous travel restrictions banning First Nations people from leaving their reserve without written consent from an Indian Agent. Migration continued with groups of Aboriginal people moving into urban areas for various reasons including educational, career, personal or social opportunities. For example, the Aboriginal population in Vancouver has increased by 132 per cent within the last 20 years, while over the same time period the Aboriginal population as a whole has only increased by approximately 22 per cent[6]. The off-reserve demographic throughout BC is only projected to increase, as the Aboriginal population remains the fastest-growing population group in the province[7].
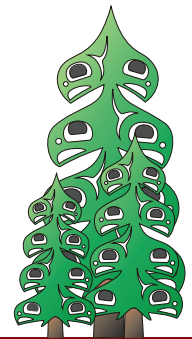
The term "Aboriginal" is used interchangeably with the term "Indigenous" throughout this report. Indigenous defines a group of people who are original inhabitants and caretakers of the land and can identify their generational roots to place from time immemorial. The term "Indigenous" can also be used to recognize the globally shared experiences of colonization amongst Indigenous peoples worldwide. Within Canada, the term "Aboriginal" has been derived from the *Indian Act* and upheld in the Canadian Constitution. Aboriginal refers to First Nations, Métis and Inuit peoples.

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4   Statistics Canada, 2006
5   Lavallée, 2009
6   BCAAFC, 2007
7   Statistics Canada, 2005

When interpreting or developing Indigenous outcomes measurement frameworks, it is important to consider data sources for the urban Aboriginal community, as most current Aboriginal data is based on registered First Nations people living on-reserve only[8]. Statistics are not equally available for First Nations, Métis or urban Aboriginal populations and are not consistently available across sectors[9]. For example, there are no comparable health data between status First Nations, Métis and non-status First Nations populations.

The Context for Indigenous Outcomes Measurement Systems

Outcomes measurement has been described as a way of "translating constructs into observables"[10] through the process of choosing meaningful outcomes related to an issue, and identifying the accompanying indicators that "when combined, contribute to an overall picture."[11] (For a glossary of outcomes measurement terms, please see Appendix 2). Measuring outcomes is one method of enabling deeper learning toward an effective and accountable service delivery system while allowing for knowledge transfer at both the community and provincial level.

An emergent yet limited body of knowledge on outcomes measurement systems within Indigenous health contexts notes that outcomes measurement can provide evidence to support Indigenous concerns, claims or positions; measure cultural or community-specific aspects of health;[12] monitor health sector performance in meeting Indigenous needs; and address inequalities between Indigenous and non-Indigenous service provision.[13]

Outcomes measurement is typically held within an overarching framework that organizes indicators into themes, domains, and/or subdomains.[14] Common frameworks enable consistency in data collection across multiple jurisdictions and serve to facilitate comparisons between different groups and different locations.[15] In one research study focused on health indicators within First Nations communities in Saskatchewan, a framework was described as a simple model of complex things.

> "Much like a house plan starts with a simple outline of its walls and rooms, the finished house with furnishings is much more complicated. A framework for community health indicators is similar. It is a simple model of complex social, cultural, economic and environmental relationships and behaviours that affect the wellness of a community."[16]

8   Anderson & Smylie, 2009; National Aboriginal Health Organization, 2007
9   BC Government, 2009
10   McDavid & Hawthorn, 2006, p.134
11   National Aboriginal Health Organization, 2007, p.2
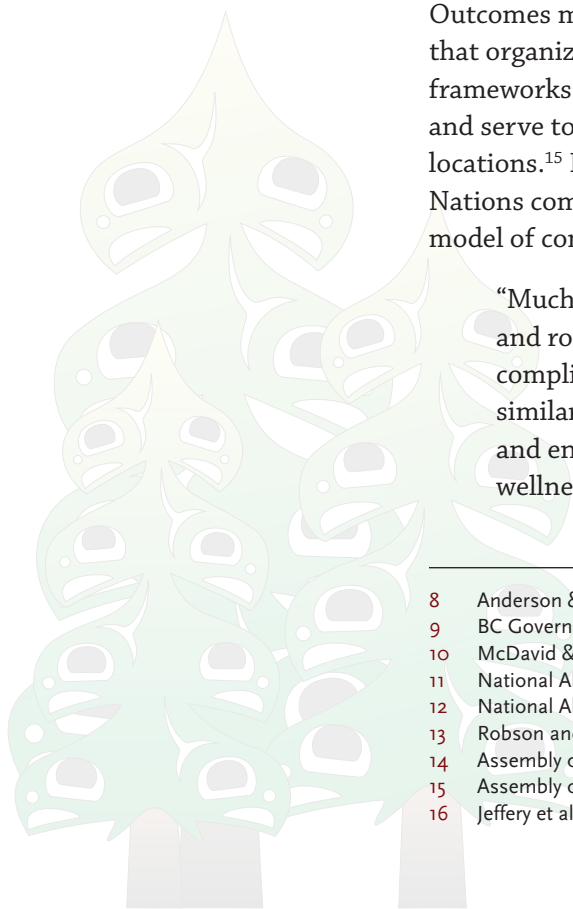12   National Aboriginal Health Organization, 2007
13   Robson and Reid 2001 cited in Ratima et al., 2006
14   Assembly of First Nations and Social Development Secretariat, 2005
15   Assembly of First Nations and Social Development Secretariat, 2005
16   Jeffery et al., 2006, p.1

Outcomes measurement systems have been described throughout the literature as serving many purposes in both health and human service sectors, such as:[17]

- Identifying needs and whether they are being met

- Noting emerging trends and issues

- Measuring success and improving quality of programs

- Enabling collection and analysis of longitudinal data

- Informing planning, funding applications, resource allocation and policy development

- Monitoring contracts and performance

For example, in a 2009 study on the state of Aboriginal learning in Canada,[18] an Indigenous measurement framework was noted as helping to inform effective social policy through forging a common, balanced understanding of Aboriginal learning between Indigenous communities, governments and researchers.

Outcomes measurement systems are also beneficial for funding bodies, serving as "an activity that proves the value of the funder's contribution" and allowing funders to reflect and improve upon the impact of their investments.[19]

The Evolution of Outcomes Measurement

The increasing proclivity toward outcomes measurement and indicator systems has grown in mainstream health and human services over the last two decades,[20] and its impetus can be attributed to many themes, including:

1. **Business applications in the human services:** In the late 1990s, the economic boom in North America created considerable new wealth, and thus new foundations were formed that could support non-government and/or non-profit sector operations and programs. These foundations, frequently led by business people who were accustomed to the use of metrics, were therefore interested in demonstrating the effectiveness of their grant-making. The subsequent donor reporting structures generated a great deal of pressure on non-profit grantees who were then asked to be transparently honest in the outcomes of their programs, whether they were "bad or good outcomes."[21]
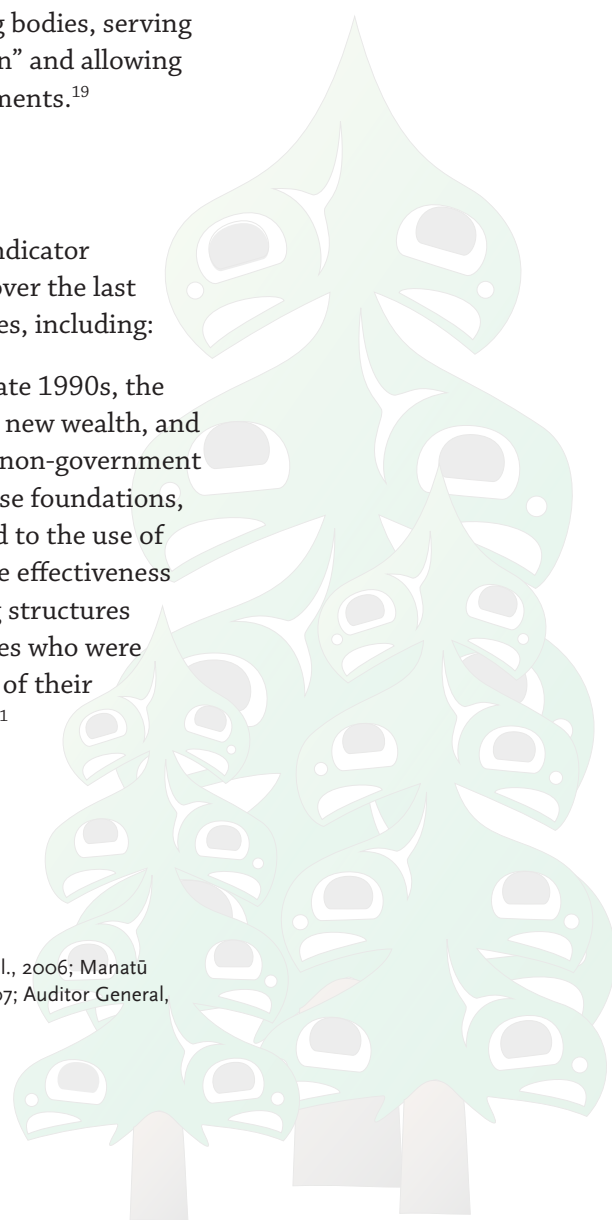
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17 Assembly of First Nations and Social Development Secretariat, 2005; Jeffery et al., 2006; Manatū Hauora, Ministry of Health, 2005; National Aboriginal Health Organization, 2007; Auditor General, 2008; Ratima et al., 2006
18 Canadian Council on Learning, 2009
19 Grantcraft, 2006
20 Marks et al., 2006; Smylie & Anderson, 2006
21 Grantcraft, 2006

2. **Concerns about philanthropic accountability:** Recent research with grant-makers in the US points out that outcomes measurement systems enabled foundations to build accountability systems before government stepped in to impose further regulations on the sector.[22]

3. **The need for evidence of program effectiveness in child and family services:** Outcomes measurement can respond to what researcher Nico Trocmé points out as an issue for child and family services within Canada, where services are often driven primarily by evidence of need irrespective of service effectiveness. In favour of outcomes measurement and evaluation, Trocmé states that "the evidence that children and families are better off as a result of the service we provide is still shockingly limited."[23]

Specifically within the Indigenous community, both in Canada and abroad, the literature describes the various influences driving the movement toward outcomes measurement. They include:

1. **Need for generating evidence of service effectiveness for Indigenous populations:** In the health sector, outcomes measurement systems can produce evidence in mental health programs that suggest alternative ways of delivering service for Indigenous populations. This evidence base can help to reduce the risks for Indigenous populations accessing services within Western paradigms which have typically led to misunderstanding, misdiagnosis, and mistreatment.[24] Similarly, within the education sector the Canadian Council on Learning suggests that "without a comprehensive understanding of Aboriginal people's perspective on learning and a culturally appropriate framework for measuring it, the diverse aspirations and needs of First Nations, Inuit and Métis across Canada will continue to be misinterpreted and misunderstood."[25]

2. **Need for collecting Aboriginal longitudinal data:** The Assembly of First Nations notes that an outcomes measurement system is one of the key methods for addressing health issues and unanswered questions for First Nations populations through collecting and analyzing longitudinal First Nations-specific health information.[26]

3. **Need for informed Indigenous policy development:** Within the Canadian education sector, policy decisions in areas such as learning and education are based on an understanding and awareness of an issue. The effectiveness of these decisions typically relies on conventional measurement approaches that offer a limited and
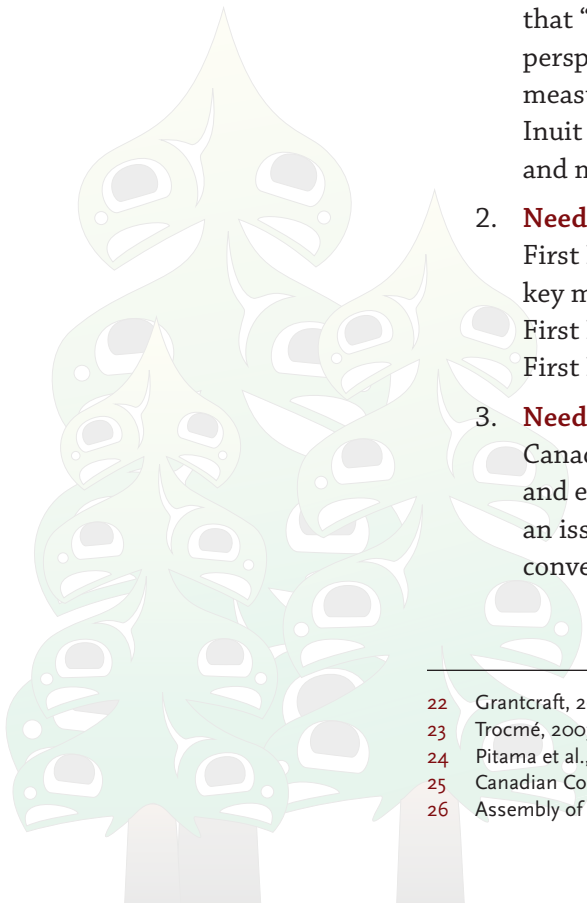
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22   Grantcraft, 2006
23   Trocmé, 2003, p.2
24   Pitama et al., 2007
25   Canadian Council on Learning 2009, p.4
26   Assembly of First Nations and Social Development Secretariat, 2005

incomplete view of the state of Aboriginal learning in Canada.[27] In the New Zealand health sector, Māori health data has been used to monitor disparities and track indicators that are able to gauge inequalities.[28] Although "having the data does not guarantee change,"[29] monitoring disparities has motivated a shift in resources toward Māori health provider development.

4. **Supporting local Indigenous community or regional planning:** In a recent review of Indigenous health measurement systems in Canada, researchers concluded that Indigenous health system performance measurement infrastructure is underdeveloped, particularly at the local level, and therefore deficient in its ability to support community or regional health planning.[30]

5. **Supporting collaborative approaches in Aboriginal child welfare practice:** In the 2008-2009 report on the management of Aboriginal child protection services,[31] the Office of the Auditor General recommended that "the ministry [of Children and Family Development], in consultation with First Nations and Aboriginal organizations and Indian and Northern Affairs Canada, collect and evaluate meaningful information on any child protection service delivery gaps; and find solutions to close those gaps."[32] This recommendation was based in part on the finding that there was a lack of collaborative approaches amongst multiple oversight bodies for the Ministry of Children and Family Development, which often resulted in limited action despite the recommendations that were made.

The Context for an Indigenous Outcomes Measurement Framework

The process of defining measures and outcomes is an inherently value-based[33] practice, reflective of the perspective of individuals or groups that create the outcomes framework. As there can be various issues associated with applying measures for use in cultural or social settings for which they were not created,[34] it is important to distinguish the embedded values and worldview that will influence the construction of the framework. The expansive functions of outcomes measurement systems coupled with an array of stakeholders (such as funding and/or research bodies, service providers, communities, etc.) suggest a complex range of motivations and values for and within measurement systems.

27 Canadian Council on Learning, 2009
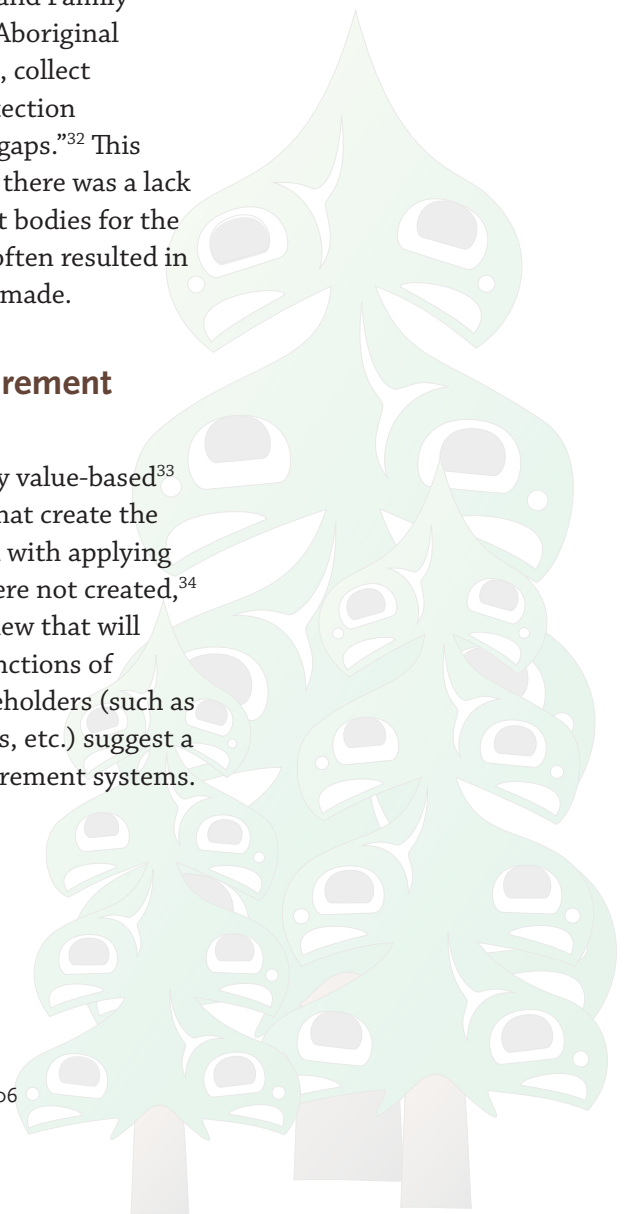28 Ratima et al., 2006
29 Ratima et al., 2006, p.16
30 Anderson & Smylie, 2009
31 Auditor General of BC, 2008
32 Auditor General of BC, 2008, p.10
33 Olsen et al., 1985; Hancock et al., 1999; Young, 2001 as cited in Marks et al., 2006
34 Pearce, 1996; Sommerfeld et al., 1999 as cited in Marks et al., 2006

An Indigenous framework for measuring outcomes offers a mechanism to articulate the motivations, values, purpose, and scope of measurement. A framework involves locating the specific worldview or paradigm that underpins the task of measuring outcomes, and "embod[ies] elements of people's lives and living conditions that reflect their culture and local concerns, [as well as] reflect what other sources of information … [are thought to be] important."[35]

The Indigenous framework selected for outcomes measurement will have specific terminology and a preferred language for the purpose of describing and categorizing outcomes and indicators. As "language is a central system of how cultures code, create and transmit meaning,"[36] the language chosen to describe the framework will effectively shape the way people think. Typically, outcomes measurement systems operate within the dominant culture, whose stronghold in maintaining language, preferred writing styles, and worldview in generating what "truth"[37] is has influenced the types of outcomes selected for measurement, and how measurement takes place. This has caused difficulty for Indigenous peoples whose traditional culture does not fit within a Western paradigm. For example, unlike the English language, traditional Aboriginal languages emphasize verbs, not nouns,[38] and traditional philosophies are held deep within constructs that are neither written nor consistent with the patterns of dominant language.[39]

When considering the application of an Indigenous worldview in outcomes measurement, a process that has largely been driven by a Western agenda and accompanying language, there is a risk that an Indigenous framework may adhere more to the Western paradigm which has predominantly retained authority over thought through preserving outcomes terminology. Aboriginal author Lee Maracle describes the dynamic associated with preserving a dominant language system with theory, as the presenter of the theory can then maintain the power to make decisions on behalf of others:

> "Recently, there was a conference at Opitsit (Meares Island) to discuss and shape thoughts on the importance of trees to the environment. Native and European environmentalists both attended. The morning consisted of presentations made by 'prominent' environmentalists, who droned on about pbm's, chloroform counts, soil erosion and so forth – none of which was understood by the Native people there. All of our people spoke and understood English, but none had any background in Latin, so the presentations by the environmentalists went over all their heads. At the end, an old man got up and said he would like to give an Indian point of view. Gratefully, the environmentalists bent their ears to listen. The old man spoke for three hours in his language, then sat down."[40]

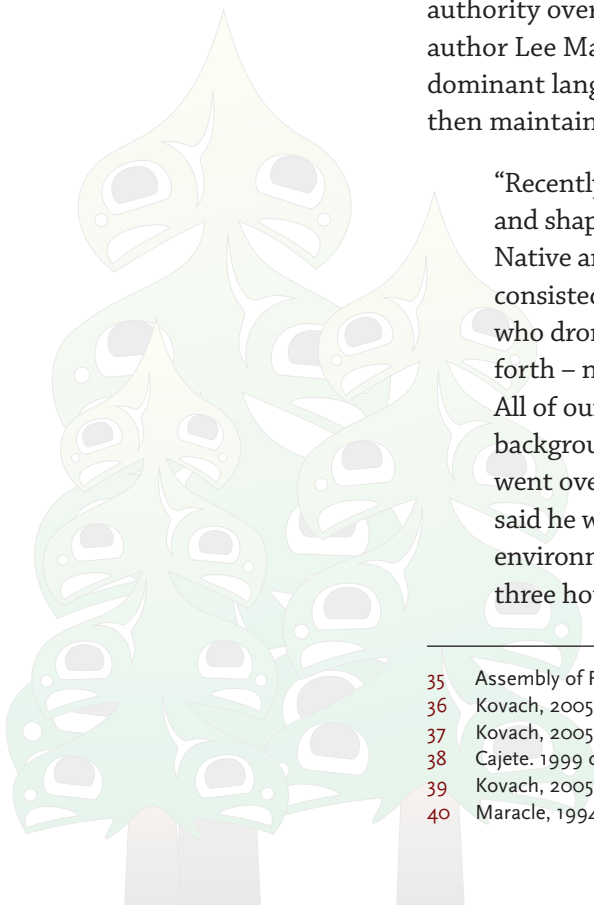35   Assembly of First Nations and Social Development Secretariat, 2005, p.3.
36   Kovach, 2005, p. 27.
37   Kovach, 2005
38   Cajete. 1999 cited in Kovach, 2005
39   Kovach, 2005, p.26
40   Maracle, 1994, p.8

Maracle's story not only underscores the power of language in maintaining and policing the boundaries of a theory or an idea, but also emphasizes the risks associated with upholding a preferred language system for a theory, such as misunderstanding or misinterpreting an idea. Within the world of outcomes measurement, there is a risk that the dominant language system will drive the way Indigenous measurement is developed, implemented and understood.

Indigenous Methodologies

An overarching Indigenous research methodology is inherent to the process of generating an Indigenous framework. Indigenous research methods will influence the components of a framework, such as:

- The accompanying values and the purpose of measurement
- The language used to describe outcomes and indicators
- How evidence is defined and where it will be used
- Whose needs are being met by engaging in measurement
- The necessary community partners involved in measurement
- The limitations of measurement

What constitutes evidence and what counts as legitimate knowledge in an Indigenous worldview will look vastly different than the construction of knowledge in a Western paradigm. This is due to the fact that Indigenous knowledge typically challenges what Western paradigms count as meaning, legitimate knowledge, and truth.[41]

Indigenous research methodologies establish an alternative approach to mainstream knowledge-building that has traditionally been exclusive to Western positivist notions of what constitutes evidence and truth. That is, Indigenous knowledge differs from traditional Western knowledge, which is firmly based on "observable facts".[42] Indigenous knowledge has been defined as traditional knowledge that is "an ancient, communal, holistic and spiritual body of information and understanding that encompasses every aspect of human existence."[43]

Indigenous knowledge is intergenerational, as it encompasses ways of knowing passed down through traditional teachings, ceremonies and storytelling throughout the generations.[44] Typically educated in the oral tradition, apart from the colonizing influence of the school system, Elders play an essential role in Indigenous methodology because of the traditional knowledge they impart through teachings, ceremonies and stories.[45]
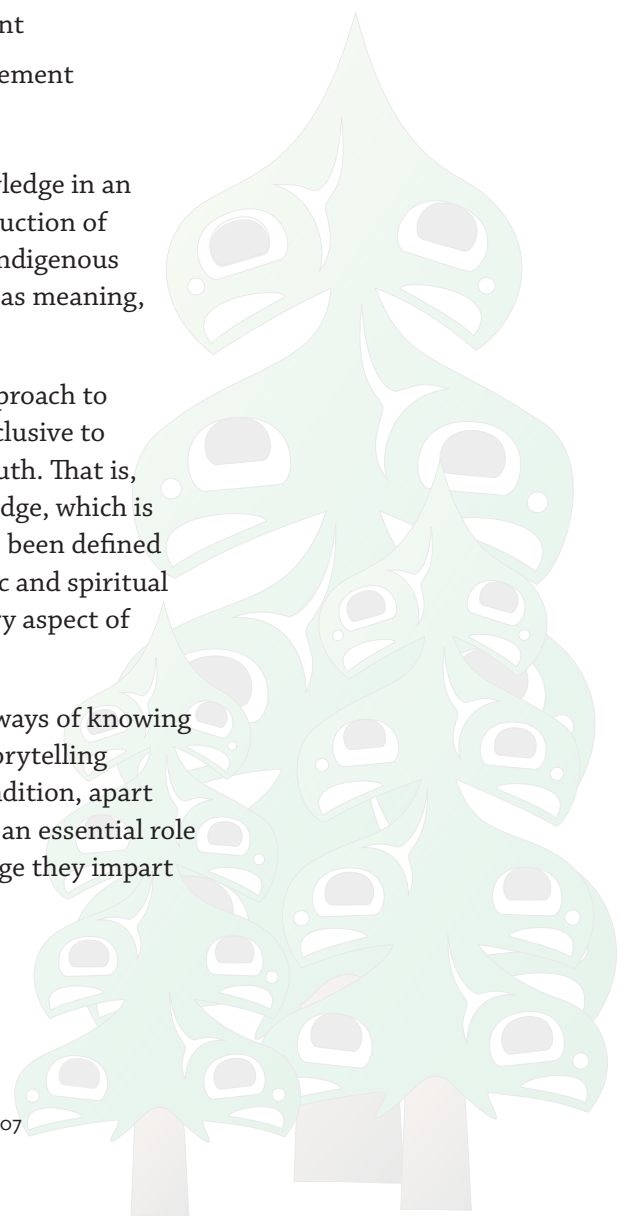
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41 Kovach, 2005
42 Brant-Castellano, 2004
43 National Aboriginal Health Organization, 2007
44 Brant-Castellano, 2004; Chi'XapKaid, 2005; Kovach, 2005; Lavellée, 2009
45 Chi'XapKaid, 2005; Lavellée, 2009; National Aboriginal Health Organization, 2007

Furthermore, Indigenous perspectives assume that knowledge is based in an ethical, spiritual, physical and social context[46] and includes:

- Fluid ways of knowing that are non-linear flexible processes[47]

- Experiential and intuitive ways of knowing, involving subconscious knowings garnered through dreams, visions and intuition.[48] Sometimes regarded as spiritual knowledge, Indigenous ways of knowing can come from the spirit world and ancestors[49]

- Knowledge that encompasses the spirit of collectivity, reciprocity and respect[50] with a basis in relationships that is inclusive of all life forms, and an assumption of accountability to the community

- Knowledge that is derived from teachings transmitted generation to generation through storytelling, and through interrelationships with the human world, the spirit, and the inanimate entities of the ecosystem[51]

- Knowledge that is born of the land and locality of the tribe

An Indigenous research methodology can help to ensure that research remains relevant to Aboriginal communities as it supports the movement toward self-determination. As Indigenous researchers note, "Fundamental to the exercise of self-determination is the right of peoples to construct knowledge in accordance with self-determined definitions of what is real and what is valuable…. Colonial definitions of truth and value have denied Aboriginal peoples the tools to assert and implement their knowledge."[52]

An Indigenous methodological approach to building an outcomes measurement framework offers a tool toward balancing the inherent tension between an Indigenous worldview and a Western research paradigm[53] that typically underpins outcomes measurement systems. That is, Indigenous research methods may offer a bridge between the benefits of modern-day outcomes measurement systems and an Indigenous approach to measurement.

As Indigenous researcher Shawn Wilson teaches us, one of the greatest strengths of Indigenous [researchers] is the ability to be bicultural: seeing and working within both the Indigenous and dominant worldviews. Wilson notes this is of great importance when working with representatives of the dominant system, "who are often not bicultural, and as a part of their white privilege, there is no requirement for them to be able to see other ways of being and doing or even to recognize that [other ways] exist."[54] Anchoring the development of an Indigenous outcomes measurement framework within an Indigenous research methodology will enable the Indigenous worldview to inform all stages of development and implementation of an Indigenous framework.

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46   Brant-Castellano, 2004
47   Little Bear, 2000 cited in Kovach, 2005
48   Castellano, 2000 cited in Kovach, 2005
51   As cited in Lavellée, 2009: G. Atone, personal communication, February 25, 2002; V. Harper, personal communication, April 12, 2002
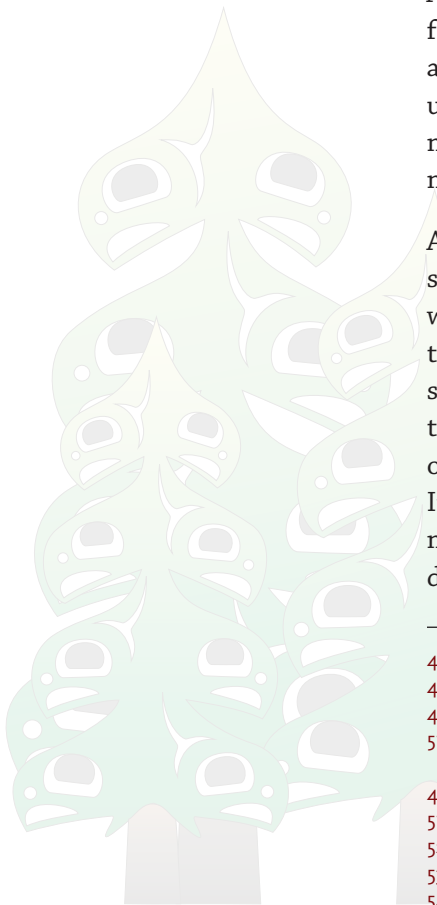49   Wilson, 2001 cited in Kovach, 2005
51   Battiste and Henderson, 2000, cited in Kovach, 2005
52   Brant-Castellano, 2004, p.102
53   Wilson, 2008
54   Wilson, 2008, p.44

Review of Indigenous Outcomes Measurement Frameworks

Nine Indigenous outcomes measurement frameworks spanning the period 2004 to 2009 were identified in the literature at the time of writing this first-phase report. Two-thirds of the Indigenous frameworks were designed exclusively for Aboriginal health, and one-third were for Aboriginal mental health, Aboriginal health and human services, or Aboriginal learning.

Four of the frameworks were from Canada, two from New Zealand, one from Australia, one from the US, and one framework was constructed for health services in New Zealand, Australia and Canada. The following section summarizes these Indigenous frameworks.

Canada

I. First Nations Regional Longitudinal Health Survey Cultural Framework (2006)

1. **Purpose of the framework:** The cultural framework for the First Nations Regional Longitudinal Health Survey (RHS)[55] was designed to guide the interpretation of statistical results and organize the findings from the RHS longitudinal study. The RHS cultural framework was noted as a tool to assist in achieving "a culturally informed interpretation that can be presented back to communities in ways that are usable and help to engender individual and collective empowerment."[56]

2. **How the framework was built:** Building the framework was a part of the overall research design for the First Nations RHS. The first two years were spent on development to ensure that RHS data would be useful to First Nations. Through the cultural framework, the RHS reports on health indicators that are uniquely important to First Nations, including residential school experiences, difficulty accessing First Nations and Inuit Health Branch services, and perceptions about language, culture and community process.

3. **Snapshot of the framework:** The cultural framework is represented in the form of a circle and encapsulates the four directions, with the First Nations person at the centre (see Figure 1).

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55   First Nations Centre, 2006
56   National Aboriginal Health Organization, 2007, p.508

The East represents visioning, or ways of seeing, and includes collecting baseline data that paints a complete picture of health involving physical, mental, emotional and spiritual health matters. The way of the South represents relationships, and includes indicators that concern community wellness, language and culture, personal wellness and residential schools. In the West, broader determinants of health are examined, such as access to health care, housing, employment and education status, and in the North, behaviours that influence health are considered, such as exercise and nutrition, alcohol or drug usage, sexual health practice and more.

Figure 1 - First Nations Regional Longitudinal Health Survey Cultural Framework
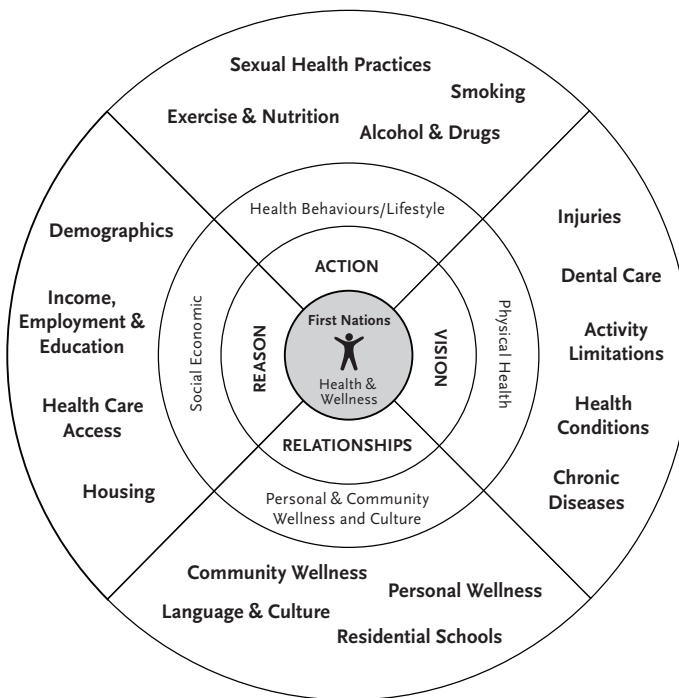
II. The Canadian Council on Learning's Holistic Lifelong Learning Measurement Framework (2009)

The Canadian Council on Learning (CCL) has developed an Indigenous framework for First Nations, Inuit and Métis people in Canada, entitled the *Holistic Lifelong Learning Measurement Framework (HLLMF)*[57].

1. **Purpose of the framework:** The purpose of the *HLLMF* is to create a comprehensive picture of the strengths and challenges of Aboriginal learning in communities across Canada and to provide a shared tool for monitoring progress in Aboriginal communities for future years. The framework is designed to inform effective social policy through forging a common, balanced understanding of success in Aboriginal learning between Indigenous communities, governments and researchers. The framework notes that the current lack of understanding about what contributes to success in Aboriginal learning has led to assessments that focus exclusively on failure, when in reality many successes exist.

57   Canadian Council on Learning, 2009

2. **How the framework was built:** The *HLLMF* was created by researchers with experience in research and development in the area of learning models for First Nations, Inuit and Métis people in Canada. The framework incorporates the elements of previous CCL learning models, while acknowledging and integrating elements that are unique to the learning perspectives of First Nations, Inuit and Métis people. The framework uses indicators from several data sources, including the Aboriginal Peoples Survey and the Aboriginal Children's Survey, both administered by Statistics Canada, and the First Nations Regional Longitudinal Health Survey, managed by the Assembly of First Nations.

3. **Snapshot of the framework:** The framework contains three main components of Aboriginal learning, each with unique indicator sets. The HLLMF also identifies gaps in the body of knowledge for Aboriginal learning and critical areas where current indicators do not exist.

   The three main components are:

   i. **Sources and domains of knowledge:** Sources of knowledge include people (family, Elders, community), languages, traditions and ceremonies, spirituality, and the natural world. Western and Aboriginal knowledge and learning approaches also exist within this component.

   ii. **The lifelong learning journey:** A wide range of formal and informal learning opportunities occur in a number of settings inside and outside the classroom and throughout four life stages: infants and children (0-5); youth (6-18); young adults (19-34); adults (35-64) and elders (65+).

   iii. **Community well-being**: Indicators in this domain help to provide context and relevance when analyzing and interpreting learning outcomes for Aboriginal people. They include the social, physical, economic, spiritual, political and health conditions that influence the learning process. This component depicts the individual and collective conditions that reflect an Aboriginal perspective on community well-being.

III. Saskatchewan's Community Health Indicators Framework (2006)

Saskatchewan's *First Nations Health Development: Tools for Program Planning and Evaluation Project* created the *Community Health Indicators Toolkit*.[58] This toolkit contains an evaluation framework and indicators for use by First Nations health organizations to track the effects of health and human service programs under their jurisdiction. The framework was created in response to the fact that existing measures and indicators of community health did not necessarily address local priorities for measuring progress on health improvement in First Nations and Aboriginal communities in northern areas. The project developed a new framework for community health and wellness that included new domains and indicators relevant to community partners.

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[58]   Jeffery et al., 2006
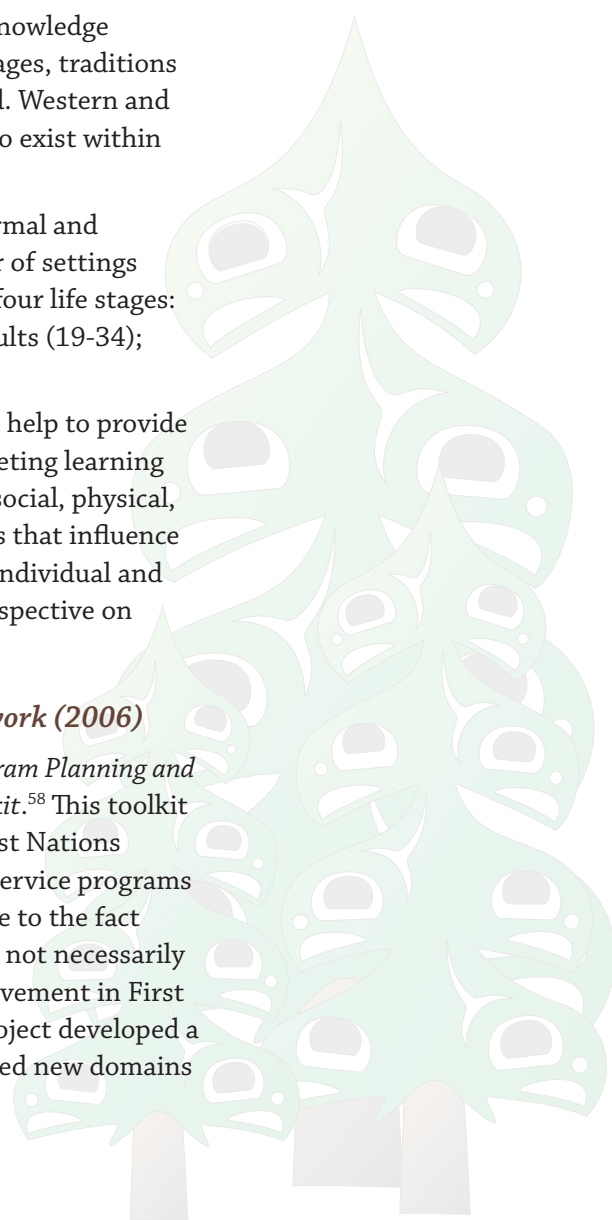
1. **Purpose of the framework:** The evaluation framework was designed to assist with the identification and collection of health and human services data for First Nations communities in Saskatchewan, based on framework domains and indicator categories. The framework aims to help plan, track and evaluate community-based health and human service programs.

2. **How the framework was built:**

   - The framework was designed through consultations with community members to explore concepts of community health. Participants included community-based health directors from six First Nation communities and three provincial communities in northern Saskatchewan.

   - A collaborative and community-based approach was taken in the design of the study, data collection and interpretation of results.

   - Draft community health frameworks and indicators were developed through a comprehensive literature review.

   - Logic models describing each health program in each of the six First Nations communities were also developed to identify a baseline of potential indicators for the new community health framework.

   - Interviews and focus groups were held with community collaborators to revise and refine a final framework and a set of indicators.

   - The resulting toolkit was then piloted in one community. Pilot activities included determining source and extent of existing community level data and identifying gaps in data that would require local initiatives to fill.

   - The final framework was developed and organized into key areas, or domains, with proposed indicator categories and corresponding indicators or measurements.

3. **Snapshot of the framework:** The framework is based on community health and wellness and is made up of six main domains (see Figure 2). Each individual domain section of the community health indicators framework has a number of components and includes:

   i. Description of the domain, list of corresponding indicator categories, number of issue areas related to indicator category, and proposed indicators according to the issue (see Figure 3)

   ii. Set of data sheets that organizes indicators within each category into an indicator table, including space to identify the data source for the indicator being measured

   iii. Tool sheet that provides an example of how one might collect the data and calculate a value for a specific indicator (the measuring tool).
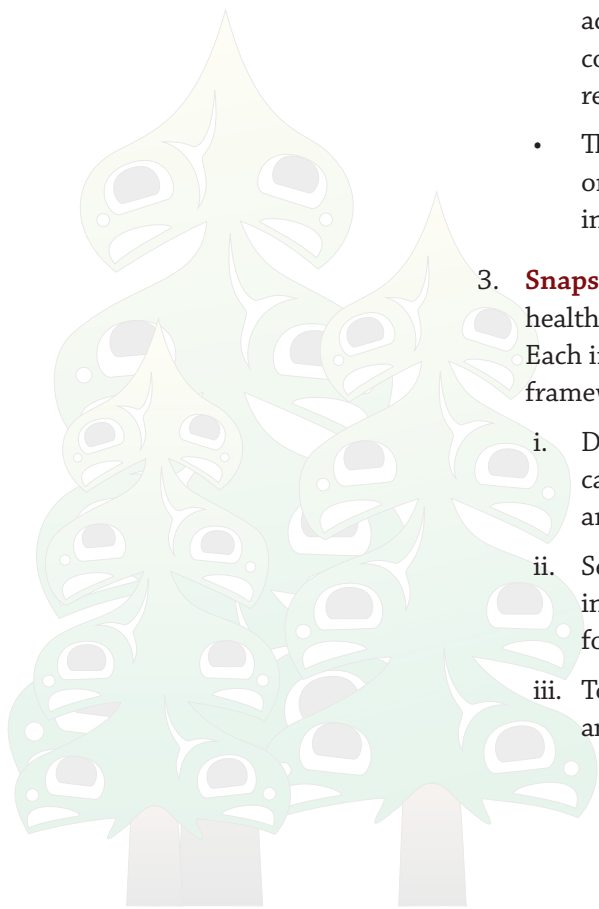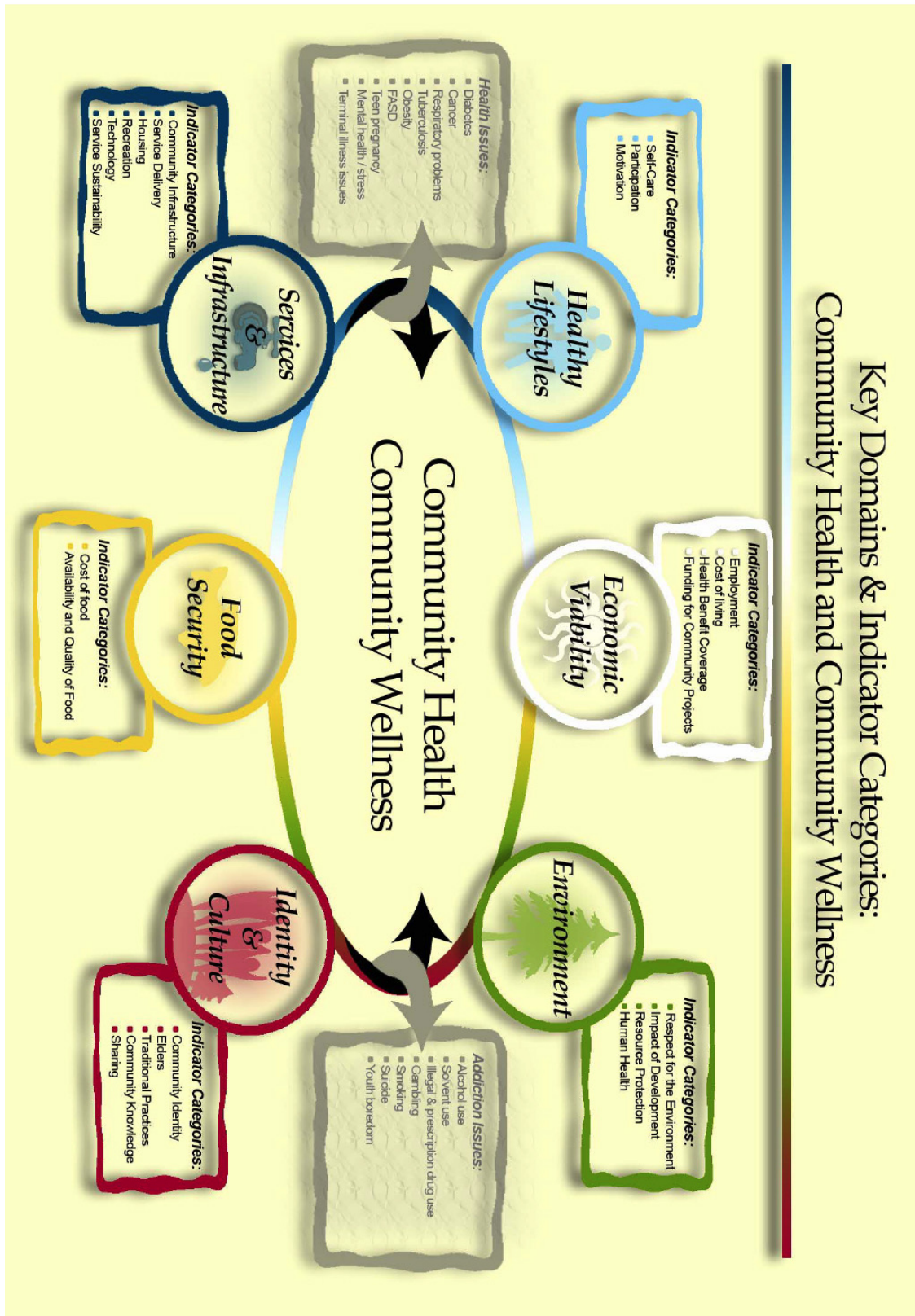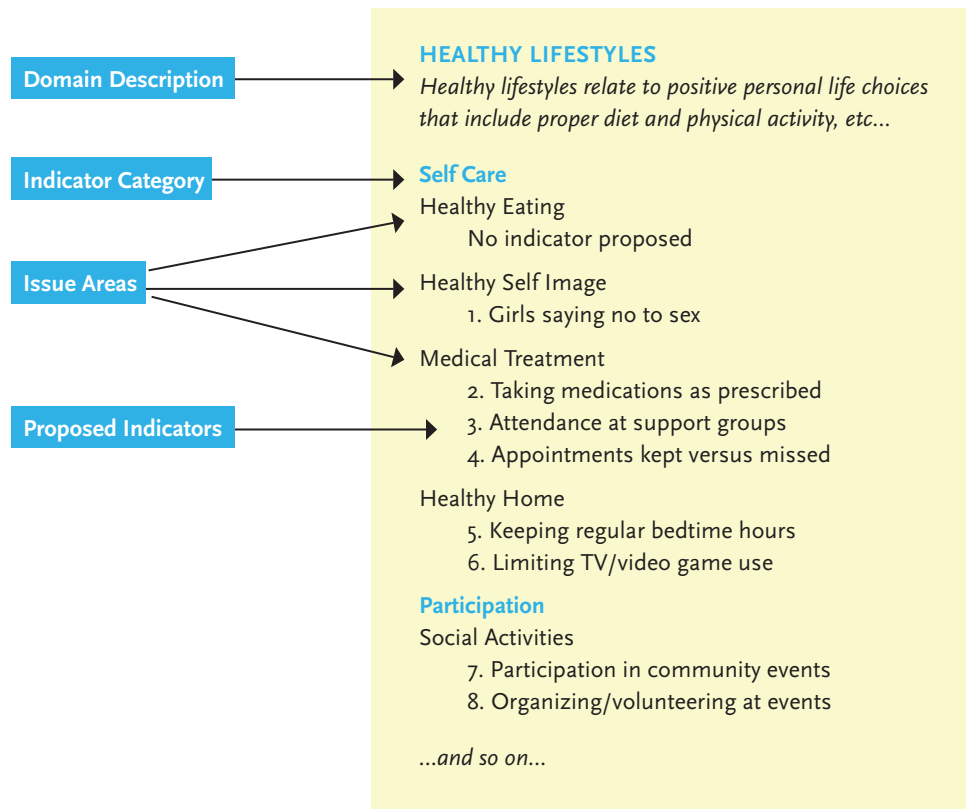
Figure 2 - From the *First Nations Health Development: Tools for Program Planning and Evaluation Project - Community Health Indicators Toolkit*

Figure 3 - Adapted from the *First Nation's Health Development: Tools for Program Planning and Evaluation - Community Health Indicators Toolkit*

Domain Description

Indicator Category

Issue Areas

Proposed Indicators

HEALTHY LIFESTYLES
Healthy lifestyles relate to positive personal life choices that include proper diet and physical activity, etc...

Self Care
Healthy Eating
    No indicator proposed

Healthy Self Image
    1. Girls saying no to sex

Medical Treatment
    2. Taking medications as prescribed
    3. Attendance at support groups
    4. Appointments kept versus missed

Healthy Home
    5. Keeping regular bedtime hours
    6. Limiting TV/video game use

Participation
Social Activities
    7. Participation in community events
    8. Organizing/volunteering at events

...and so on...

IV. Assembly of First Nations Health Reporting Framework (2005)

The Assembly of First Nations created the First Nations Health Reporting Framework (FNHRF)[59] as well as 20 suggested health indicators as a way to improve health for First Nations. This was developed in response to the many challenges to improving the health of First Nations people across Canada. One of the keys to addressing challenges is the need to collect and analyze longitudinal First Nations-specific health information.

1. **Purpose of framework:** The FNHRF is a practical tool designed for use in community planning, as well as for a reporting tool to federal, provincial and territorial governments. The framework is also designed as a tool to allow for comparisons between First Nations and Canadian data, and to provide information that can be used to set priorities and allocate resources.

2. **How the framework was built:** The framework and indicators were informed by a two-phased literature review, as well as a review of several Aboriginal and non-Aboriginal health reporting frameworks developed in Canada, the US and Australia.

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59   Assembly of First Nations and Social Development Secretariat, 2005

The first phase focused on identifying potential First Nations health indicators, including widely used indicators such as injuries, infectious disease, obesity, smoking, suicide, and more. Other indicators pertinent to First Nations health were also reviewed. They included social and economic status, legacy of residential schools, and community health. Traditional indicators that were considered immeasurable were omitted from the framework but were noted as being referenced in the text for future consideration.

The second phase of the literature review involved looking at existing health reporting frameworks. The authors note that there is very little information related to health indicators and health reporting frameworks specific to First Nations. As a result, the review included frameworks developed for other Aboriginal groups, such as Inuit in Canada and Indigenous people in the US and Australia, in addition to frameworks for non-Aboriginal populations.

3. **Snapshot of the framework:** The draft FNHRF represents a blend of concepts and elements taken from several existing frameworks as well as findings from the literature review. The framework includes a wide range of factors that are known to influence health, rather than focusing exclusively on health status and health care services. It uses the concept of the Medicine Wheel to depict the several health domains and emphasize their interconnectedness and the balance of all of these elements in the determination of individual health.

The draft FNHRF includes 20 indicators categorized under four main health domains: individual health, health services, health determinants and community health. The framework aims to strike a balance between indicators that would allow for reasonable comparison with the general Canadian population and indicators specific to the First Nations population.
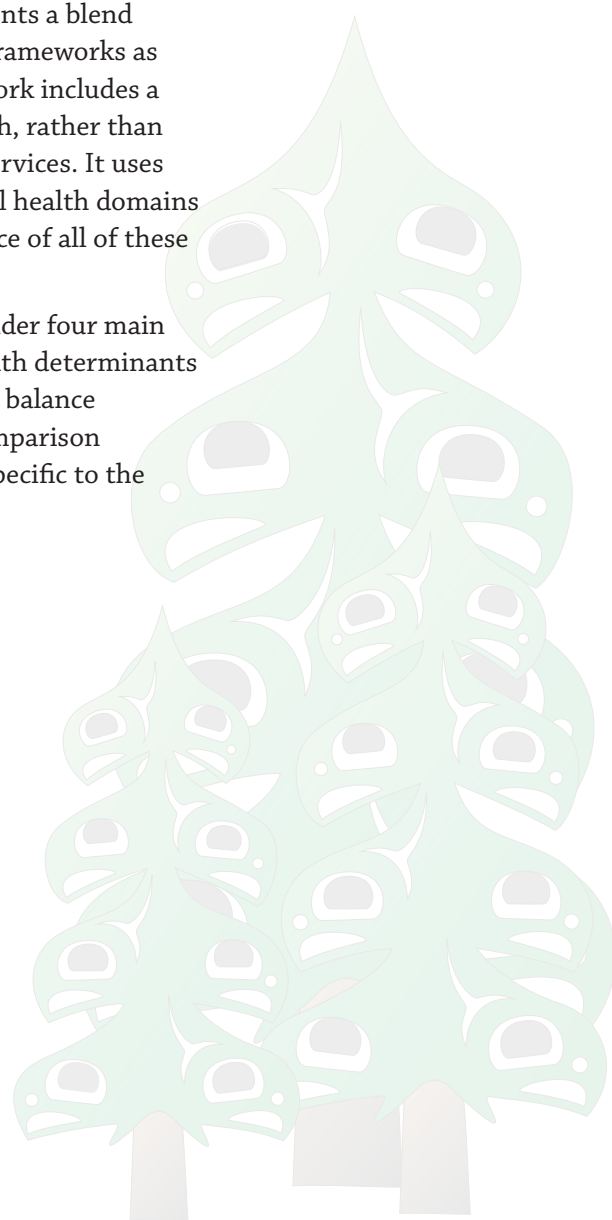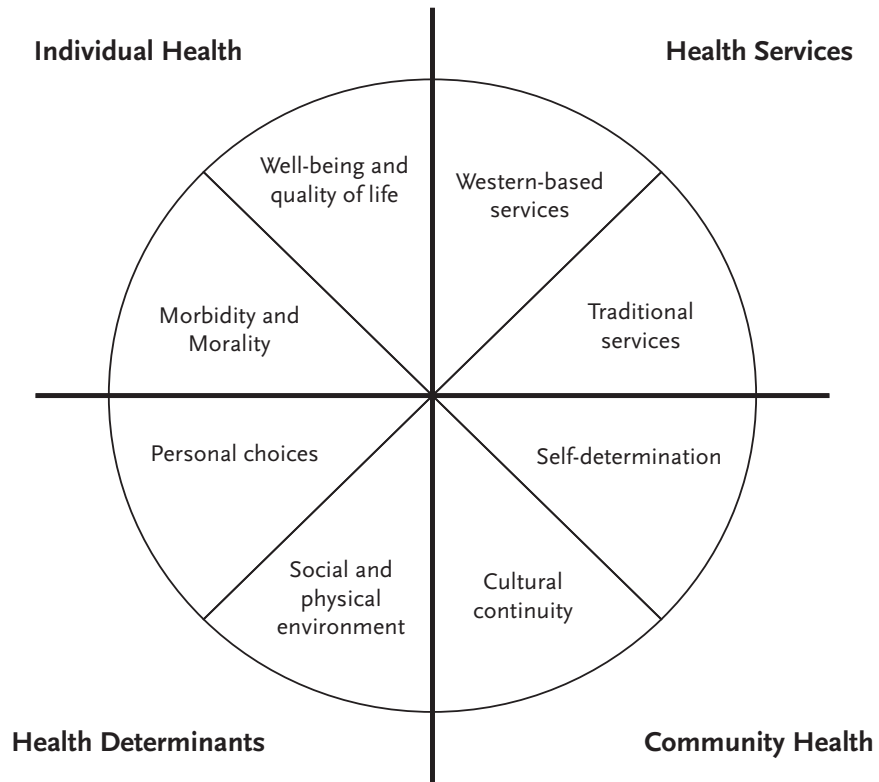
Figure 4 - From the
*First Nations Health
Development: Tools for
Program Planning and
Evaluation Project -
Community Health
Indicators Toolkit*

Individual Health

Health Services

Well-being and
quality of life

Western-based
services

Morbidity and
Morality

Traditional
services

Personal choices

Self-determination

Social and
physical
environment

Cultural
continuity

Health Determinants

Community Health

New Zealand

I. The Meihana Model (2007)

The Meihana Model (MM),[60] an Indigenous framework for clinical assessment
and intervention with Māori clients and *whānau* (extended family) was
developed in New Zealand over a period of 12 years and completed in 2007.

1. **Purpose of the framework:** The MM is a multi-dimensional tool that
    combines clinical and cultural competencies to better serve Māori
    within mental health service delivery.

2. **How the framework was built:** The framework was built in three
    phases. Phase one involved research interviews with Māori and
    non-Māori clinicians, phase two identified and filled gaps in knowledge,
    and phase three involved developing, implementing and peer
    reviewing the framework. The MM was then taught to post-graduate,
    undergraduate and professional groups.

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60   Pitama et al., 2007
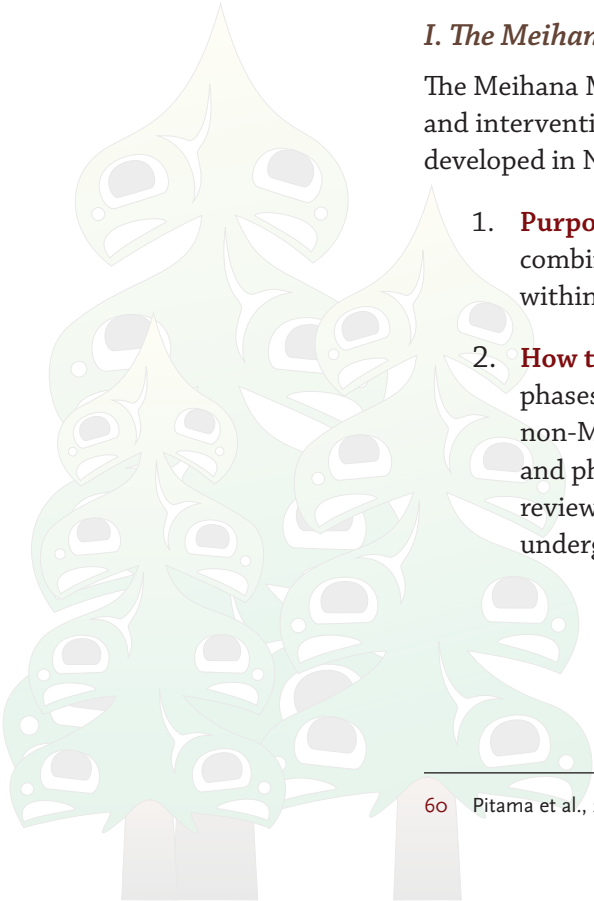
3. **Snapshot of the framework:** The framework is made up of six dimensions:

   i. Client support networks

   ii. Physical well-being

   iii. Biases within current psychological practice

   iv. Level of attachment (this was traditionally named spirituality but was changed because it was often neglected by clinicians who believed that they didn't have competencies to work in this area). Attachment refers to who and where the client feels connected and which environment and/or practices are required to assist the client to feel most connected

   v. Physical environment

   vi. Societal context

Clinicians who use the MM are required to have a clear understanding of cultural safety and cultural competency, and be able to demonstrate abilities within both of these areas with regard to Māori. The MM also requires that Māori expertise is utilized throughout the entire assessment and intervention process to ensure appropriate cultural analysis of all data/information and implementation of resulting interventions.

II. He Korowai Oranga Monitoring Framework (2005)

New Zealand's Ministry of Health developed a monitoring framework for its national health strategy, *He Korowai Oranga*.[61]

1. **Purpose of the framework:** The monitoring framework was designed to measure progress toward the concept of *Whānau Ora*, that is, where Māori families are supported to achieve their maximum well-being.

2. **How the framework was built:** The development of the monitoring framework included face-to-face consultations and written submissions from the Māori community to identify the framework's conceptual basis, specific outcome measures and indicators, and implementation.

   The combination of consultations, written feedback, a reference group, literature scan and internal Ministry of Health discussions eventually led to the conceptual framework; Māori health indicators; an implementation plan for the monitoring framework; and the actual monitoring framework for the national health strategy.

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61   Manatū Hauora, Ministry of Health, 2005
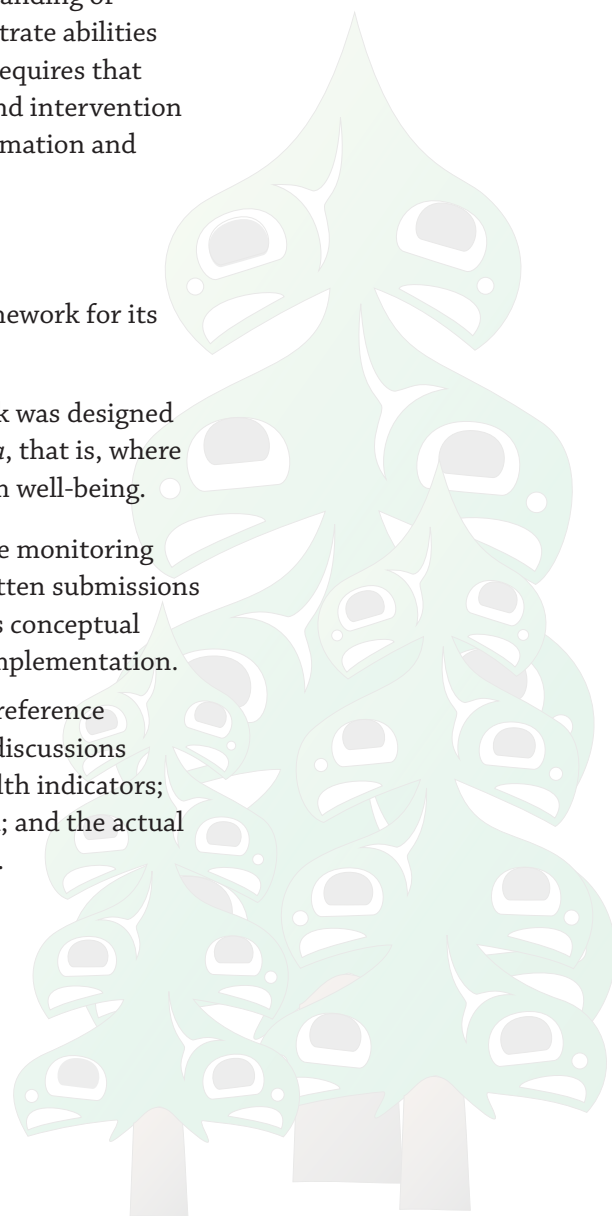
3. **Snapshot of the framework:** The framework was built on the following four principles:

    i. The measures in the monitoring framework will reflect what is important to *whānau* (extended family), *hapū* (kinship groups), Māori communities, other stakeholders and government.

    ii. There should be dual focus on Māori information and on comparisons with other population groups such as non-Māori. However, there is a risk to undertaking disparity analysis, so communities want the emphasis to be on strengths and positive analysis.

    iii. Both individual and collective measures should be used (thereby recognizing that *Whānau Ora* is a collective concept).

    iv. The usefulness of monitoring information should be the driving force behind the design of the monitoring framework. For example, information needs to be focused on Indigenous communities and should be useful for influencing decision-makers. The framework needs to be durable, flexible and able to survive changes in government and policy direction.

The monitoring framework contains two distinct focuses for choosing appropriate indicators for measuring *Whānau Ora*:

   i. Mainstream/general statistics that are familiar and widely used, such as indicators related to demographics, disparity, socioeconomic factors, etc.

   ii. Māori concepts and values that are less recognized as measurable indicators but are seen as key to measuring *Whānau Ora*. However, developmental work is needed to measure aspects of *Whānau Ora* as some Māori concepts may not be appropriate to measure.

Australia

I. Aboriginal and Torres Strait Islander Health Framework (2006)

The Australian Government's Standing Committee on Aboriginal and Torres Strait Islander Health created the Aboriginal and Torres Strait Islander Health Performance Framework.[62]

1. **Purpose of the framework:** The Health Performance Framework is intended to provide a meaningful and policy-based report on the health status of Aboriginal and Torres Strait Islander peoples; the performance of the health system; and the situation in relation to the determinants of health.

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62   Australian Government, 2006

The framework aims to:

- Provide a public accountability tool for governments
- Provide a way of measuring achievement against their commitments to improve Aboriginal Torres Strait Islander health
- Inform policy in Aboriginal and Torres Strait Islander health and government action on the determinants of health
- Promote informed research (for example, longitudinal analysis will be available to highlight changes in key areas of health system performance and outcomes as well as health determinants)
- Foster informed public debate around Aboriginal and Torres Strait Islander health

2. **How the framework was built:** The framework was developed through a comprehensive process involving a review of other national and international health performance frameworks and their use of language, terminology, measures and indicators. Consideration was also given toward Australian national policy for Aboriginal and Torres Strait Islander people and the contextual issues associated with the current status of Aboriginal and Torres Strait Islander health and health system development. Framework measures were selected by an advisory group based on policy relevance, technical merit, validity, reliability, sensitivity and measurability.

3. **Snapshot of the framework:** The framework comprises three tiers of performance measurement that are influenced by one another.

   - **Tier one:** measures of health status and health outcomes, such as prevalence of disease or injury, etc.

   - **Tier two:** measures of determinants of health status, such as socioeconomic status, environmental factors, etc.

   - **Tier three:** measures of health system performance, such as population health programs, primary health care services and acute care sectors.

United States

I. Circles of Care Measurement Framework (2004)

The Circles of Care (CoC) initiative,[63] a mental health program for American Indian and Alaskan Native communities, included an overarching framework and cultural process for measuring outcomes as a key goal of the initiative. The community partners who participated in this initiative each had the opportunity to design their own framework based on the overarching CoC framework, with the prescribed format set out by the head researchers/

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63   Novins et al., 2004
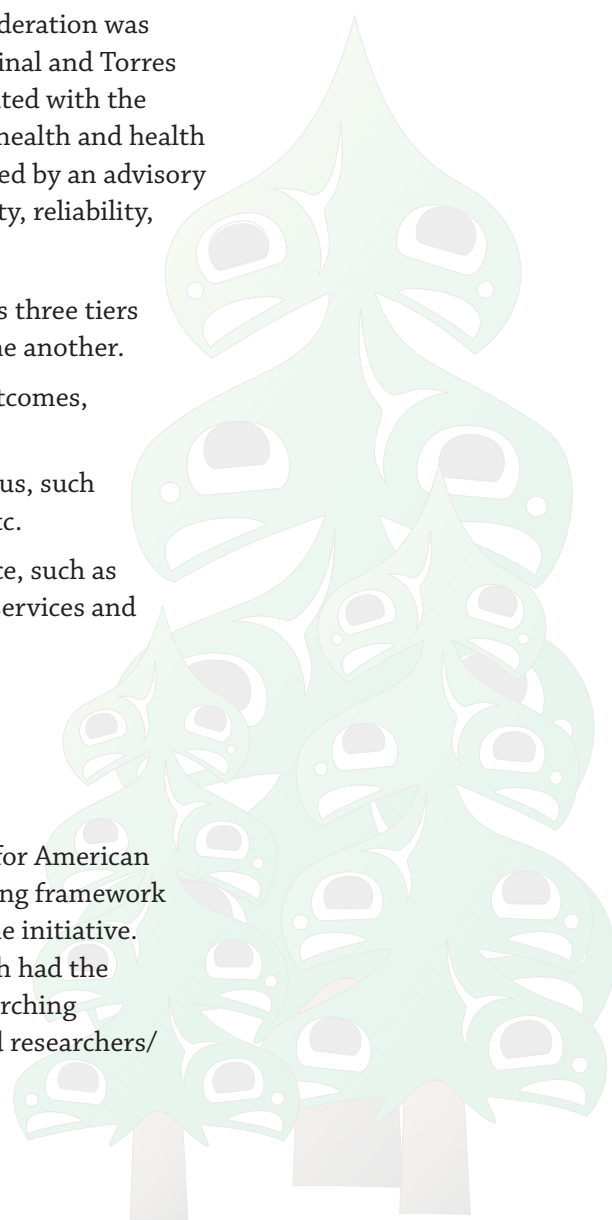
project leads. The overarching framework in part emerged from concerns that mainstream approaches to measuring outcomes for mental health services have been inappropriate for programs serving American Indian and Alaskan Native communities.

1. **Purpose of the framework:** The purpose of the measurement framework was to help determine what constituted a positive outcome for American Indian and Alaska Native children, adolescents and their families, as well as to determine how outcomes could be measured.

2. **How the framework was built:** The overarching framework was built by the team of CoC researchers and consisted of six main components that were then to be tailored to each participating community stakeholder.

   i. **Domains of measurement:** Community participants could choose from a list of pre-determined domains, including:

      - Local concepts of health and mental health symptoms
      - Indicators of health and dysfunction
      - Resiliency and risk
      - Tribal identities
      - Spirituality
      - Family profiles
      - Availability of services
      - Barriers to accessing services
      - Acceptability of services

   ii. **Levels of assessment:** Participants were then asked to select which pre-determined levels of assessment they would measure: individual-based outcomes, family-based outcomes and/or community-based outcomes.

   iii. **Assessment approaches:** Participants were also asked to choose their specific approach to their assessments, that is, to measure outcomes from a problem-based perspective, strengths-based perspective, or a combination of the two.

   iv. **Key informants:** Participants then identified the key informants they would use toward measuring their outcomes. Participants generated the following overall list of informants:

      - Child/adolescent
      - Parents/caregivers
      - Extended family
      - Elders
      - Traditional healers
      - Community members
      - Project staff members
      - Biomedical clinicians
      - Secondary data (county mental health, schools and juvenile probation)

v. **Timeline:** Participants were asked to produce a project timeline showing when they would expect their programs to demonstrate a measurable difference in domains that they had identified and how long they would expect these impacts to last.

vi. **Outcome measures:** Finally, participants were asked to select the specific measures to be employed, supplied by the project leads. Participants were able to evaluate and choose potential measures based on utility for their community contexts and specific service delivery models rather than popularity in non-Indigenous programs and usage in county, state and federal funding efforts.

3. **Snapshot of the framework:** Unable to locate in the literature.

Canada, New Zealand and Australia

The Health and Social Indicator Framework for Indigenous Community Health Research (2006)

1. **Purpose of the framework:** The *Health and Social Indicator Framework for Indigenous Community Health Research*[64] offers an Indigenous indicator framework to systematically classify Indigenous community indicators and more general community-level social indicators.

2. **How the framework was built:** The framework was developed through an extensive literature review, consultations with Indigenous and non-Indigenous community stakeholders and consultations with public health researchers in Canada, Australia and New Zealand. For example, the Canadian working group was made up of Indigenous members selected through emailing and recruiting people at several Indigenous health conferences throughout Canada. The stakeholder group reviewed project progress and discussed areas of concern for Indigenous communities that members perceived were not being adequately represented by existing indicators and domains in indicator systems.

The researchers pointed out that although they consulted with Indigenous participants, the framework was limited by the fact that it was constructed using a European national social indicator reporting system as a foundation, to which other domains were added. Therefore the product is inherently value-laden in its development from a Western academic perspective.

3. **Snapshot of the framework:** The Indigenous indicator framework provides a four-level structure by which indicators from diverse sources can be systematically classified and situated according to the domains or issues they are intended to measure. Twenty-two domains were selected, containing over 100 goal dimensions and indicator groups, which were grouped by subjects.

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64   Marks et al., 2006
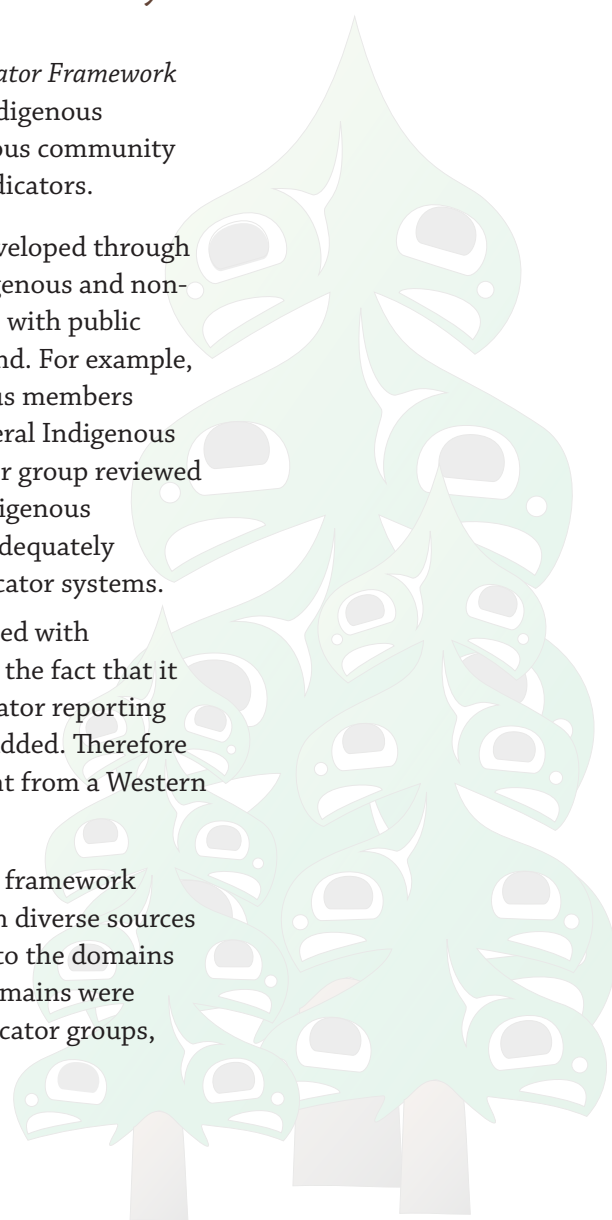
Methodological Considerations

A number of significant methodological issues can be gleaned from the literature on Indigenous measurement frameworks, including:

- Different ways of defining an Indigenous outcomes measurement framework

- Purpose of and motivations for measurement

- Definition of evidence

- Resources and capacity required for implementing Indigenous outcomes measurement systems

Different Definitions of an Indigenous Outcomes Measurement Framework

The process of defining an "Indigenous" outcomes measurement framework can be a complex task, as the term itself is defined in various ways throughout the literature. Although most of the aforementioned frameworks purported to be "Indigenous," there was a lack of specificity as to what this term actually referred to. Many of the available Indigenous outcomes measurement framework models were typically constructed using a Western paradigm therefore were value-laden in their development from a mainstream perspective.[65] An overall analysis suggests that there were three models of an Indigenous outcomes measurement framework.

1. **Western IOMF Model:** Principally driven by a Western worldview agenda, this version of an Indigenous outcomes measurement framework refers to a tool that is designed to measure and compare universal outcomes between Indigenous populations and non-Indigenous populations only.[66] For example, there has been a priority within the health sector for these types of frameworks, as they produce comparison data for Indigenous populations that can be measured against data for non-Indigenous populations. This approach results in more attention going to physical and disease-based measures and less focus on regional cultural diversity and Indigenous specific values and priorities.[67]

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65   Marks et al., 2006

64   For example, see the Australian Government's 2006 Aboriginal and Torres Strait Islander Health Performance Framework

67   Smylie & Anderson 2006

2. **Western IOMF with Indigenous Input Model:** This type of framework is largely driven by a Western worldview and refers to a tool developed by non-Indigenous people, with possible Aboriginal input.[68] The Western IOMF with Indigenous input model contains universal outcomes for Aboriginal and non-Aboriginal populations, as well as a number of unique outcomes thought to pertain specifically to the Indigenous community. In a recent review of Indigenous outcomes measurement systems in the health sector, researchers noted "only rarely in the [published] literature was mention made of the involvement of Aboriginal people or communities in defining, collecting, or analyzing health indicators, and few examples were available of how the data collected was used by the local community."[69]

3. **Indigenous IOMF Model:** An Indigenous outcomes measurement framework consists of a tool designed specifically by and for the Indigenous community, anchored in an Indigenous worldview.[70] If the designers of the tool choose to use universal outcomes, there is clear evidence that the outcomes support the Indigenous agenda.

Purpose of Measurement

The justification for implementing an outcomes measurement framework will determine how evidence will be defined, gathered, measured and used. While measurement systems have been widely used for a range of reasons, they have commonly been linked in the literature to support program fiscal accountability.

i. Fiscal Accountability

In a wide review of health measurement systems for First Nations, Inuit and Métis throughout Canada, researchers reported that indicator selection is often driven by financial accountability requirements as opposed to informing public health policy or planning.[71] Funding bodies will commonly specify the use of specific outcome measures, and as a result, community programs have less flexibility to pursue innovative and/or community-driven approaches to measurement.[72] A research study in the US examining the approaches taken by American Indian and Alaskan Native communities in designing their own health measurement framework showed that multiple funding sources for community programs resulted in multiple (and sometimes conflicting) requirements for measuring specific outcomes as a part of funding agreements. Consequently, there was limited capacity to be self-driven in selecting meaningful community outcomes and indicators.[73]

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68   For example, see Novins et al., 2004
69   Anderson & Smylie, 2009, p.106
70   For example, see Pitama et al., 2007
71   Anderson & Smylie, 2009
72   Novins et al., 2004, p.88
73   Novins et al., 2004

Furthermore, if some funders are not accustomed to seeing negative outcome trends in social programs, community programs may feel the need to only report out on certain outcomes that describe a positive story in order to preserve their funding, as "the slightly unintended effect of having great social outcome measurement systems is that the numbers are not quite as positive as what funders are used to seeing."[74]

A group of grant-makers in the US note that one of the ways to counter the risk of measuring outcomes specifically for fiscal accountability is to establish an authentic partnership between funders and the community, in which data facilitates dialogue. One funder summarized it this way: "You want to learn together? The important thing is relationship, relationship, relationship."[75]

ii. Informing Community Practice

Outcomes measurement carries the potential to enhance community learning and program quality if the findings generated through measurement are fed back into the community. However, the results of a review of Indigenous health measurement frameworks in Australia, New Zealand and Canada indicate that the data compiled from measurement was rarely, if ever, fed back into health care services or the Indigenous communities from which data came.[76]

In a study reviewing the Indigenous measurement framework for health amongst Aboriginal and Torres Strait Islander peoples, researchers noted that there was a perceived lack of return of understandable and relevant information to communities and service providers. This resulted in an overall belief that the information collected was not being used at all and confusion as to why the information was being collected in the first place.[77] In a review of Indigenous health measurement frameworks within Canada, researchers reported that minimal information was returned to communities to inform health planning.[78]

How Evidence is Defined

When building an Indigenous framework, methodological considerations must be made toward what constitutes evidence or meaningful data. For example, in the area of Māori health outcomes measurement, the definition of "healthy" will determine which indicators are selected to measure good health. "An elderly [Māori] man who is overweight, breathless when exercising and prone to gout may be seen by himself and his community as healthy because his *whānau* [extended family] relationships are mutually rewarding and he maintains a sense of harmony with the wider environment."[79]
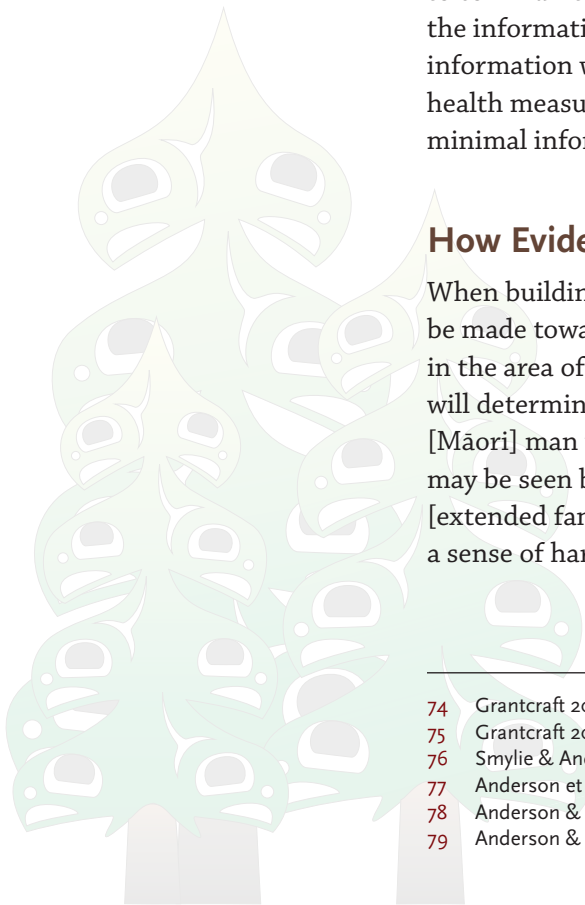
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74   Grantcraft 2006, p.6
75   Grantcraft 2006
76   Smylie & Anderson, 2006
77   Anderson et al., 2006
78   Anderson & Smylie 2009
79   Anderson & Smylie 2009, p.4
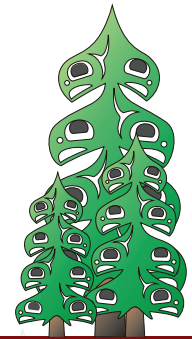
i. Traditional Indicators

Traditional or cultural indicators have been described as "constants that are felt, seen, touched, smelled and heard in daily life yet are assumed to be immeasurable for various reasons."[80] In general, traditional indicators are difficult to measure in mainstream contexts, as Indigenous knowledge stems from traditional ways of being, long before first contact with the European settlers and the emergence of the Western worldview and preference for positivist thinking.

For example, most Indigenous cultures are oral, therefore an important research method in generating Indigenous evidence is the use of storytelling. "Before the introduction of written language, grandparents and gifted storytellers distributed all knowledge orally. It was through their living breath that the ancient tales of their ancestors were passed on and remembered."[81] Transcribing stories into the written word for the purpose of creating traditional indicators risks losing a level of meaning based on the fact that originally, the story was only intended to be transmitted orally.[82]

Researcher Margaret Kovach quotes Indigenous leader Russell Means, "I detest writing. The process itself epitomizes the European concept of 'legitimate' thinking; what is written has an importance that has denied the spoken…. [Traditional ways of knowing must come from the teachings of] the hoop, the four directions, the relations."[83]

The use of Indigenous evidence and traditional indicators in outcomes measurement systems can therefore be problematic. For example, when it came to incorporating traditional and cultural indicators into the First Nations Health Reporting Framework in Canada, the indicators that were developed by community Elders were deemed as "essentially undetermined and marginal,"[84] as they had not undergone any secondary analysis. The framework therefore did not incorporate traditional indicators, as they were viewed as immeasurable. The traditional indicators in the First Nations Health Reporting Framework were noted as belonging to the following four categories:

1. **Historic trauma:** Historical trauma has become embedded in Indigenous thought because "it is enduring, far-reaching and highly victimizing."[85]

2. **Health wisdom:** "Clinical trials, statistics, the internet, literature, empirical theories, mass media and personal observation make up evidence but health wisdom stems from the natural environment, cosmovisions, storytelling, dreams, ancestors and spirits, and is constantly evolving through word of mouth and by example."[86]

Employing traditional indicators in an outcomes measurement system is a complex task and requires what researcher Shawn Wilson (2008) describes as the ability to be bicultural: seeing and working within both the Indigenous and dominant worldviews. This biculturalism can be illustrated through a recent Métis community infant wellness study designed to archive historical understandings of infant wellness and link traditional concepts with current measurements of infant health. When working with a Métis Elder for the project, the researchers needed to translate the consent forms into Cree, but there was no translation for "health measurement." Maria Campbell, Métis author, stated "There is no word in Cree for this. There is a word for 'measurement,' but we use it to talk about the amount of wood cut or the size of a catch of fish" (Smylie & Anderson, 2006, p.1).

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80   Assembly of First Nations and Social Development Secretariat, 2005, p.13
81   Chi'XapKaid 2005, p.132
82   Kovach, 2005
83   Means, 1989, as cited in Kovach, 2005, p.19
84   Assembly of First Nations and Social Development Secretariat, 2005, p.13
85   Assembly of First Nations and Social Development Secretariat, 2005, p.15
86   Assembly of First Nations and Social Development Secretariat, 2005, p.15

3. **Ethnomedicine:** "Ethnomedicine orders cultural beliefs, healing practices and community relationships in a sensory and relevant way."[87] There has been a lack of evidence-based medicine that recognizes and accepts community-constructed knowledge, norms and values. This results in a lost opportunity to find appropriate explanations for the lack of attachment First Nations have for modern medicine and its institutions.

4. **Blended health care:** Blended health care refers to the co-existence of modern medicine and ethnomedicine. "Blended health care is hard to monitor and measure especially since traditional healers and Elders are not accredited health care providers and they do not keep records of the care they give."[88]

ii. Engaging Community in Developing Meaningful Indicators

When it comes to developing measurement frameworks, researchers have noted there is a general mistrust by Indigenous communities towards externally imposed processes.[89] In order to build trust and relevance for Indigenous communities and to support local service development, communities themselves need to be actively involved in defining and prioritizing indicators.[90] As a cautionary note, researchers in New Zealand reported that although Māori were involved in reference groups for the purpose of developing Māori models of health measurement systems, their limited involvement "minoritized" them within an expert advisory group, and their perspective was "the minority view and therefore [had] a limited capacity for debate."[91]

iii. Complex Data Sources for Indigenous People

When selecting indicators for any Indigenous measurement tool, it is important to consider the diverse reality of Aboriginal peoples in Canada and the various sources of data that may go into populating an outcomes measurement system. Within the Canadian health context, measurement tools tend to overlook geographic and cultural diversity amongst the Indigenous population, including the growing urban demographic. National data sources for all Aboriginal people often collapse off-reserve and/or non-status First Nations, Métis and Inuit people into one population group as most "Aboriginal" data is based on registered First Nations people living on-reserve only.[92] Data sources regarding social and economic outcomes for Aboriginal people in BC frequently refer to First Nations living on-reserve only, as data are not equally available for off-reserve First Nations, Métis or urban Aboriginal populations and are not consistently available across sectors.[93]

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87   Assembly of First Nations and Social Development Secretariat, 2005, p.15
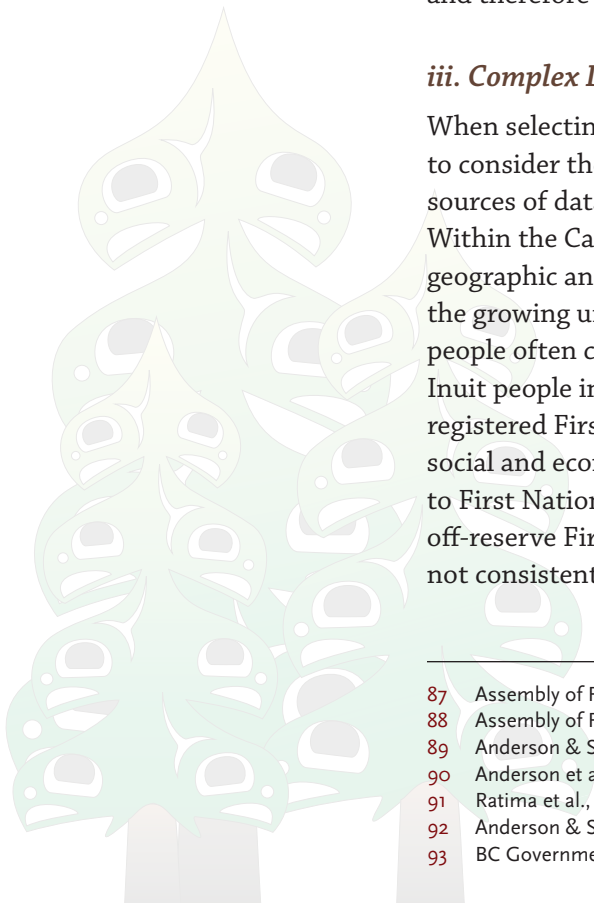88   Assembly of First Nations and Social Development Secretariat, 2005, p.15
89   Anderson & Smylie, 2009
90   Anderson et al., 2006
91   Ratima et al., 2006
92   Anderson & Smylie, 2009; National Aboriginal Health Organization, 2007
93   BC Government, 2009

Furthermore, First Nations-specific data is often fragmented or unavailable due to a lack of data infrastructure in First Nations communities, insufficient First Nations identifiers in provincial/territorial health databases, and limited shared national standards.[94] Similarly, in a Māori health measurement context, a 2006 review showed that the main criticism from community stakeholders was that the selection of health measurement tools did not take account of the diverse realities of the Māori people.[95]

Compounding the issue of limited data reliability for Indigenous peoples in Canada in the area of child welfare is the issue of agreeing on what the measurement priorities are or what needs to be measured. For example, when reflecting on the process of building a national outcomes framework in child welfare across Canada, researcher Nico Trocmé notes that there was no consensus about the objectives of child welfare services and several apparent contradictions, thus creating further challenge in developing an outcomes framework.[96]

iv. Non-Indigenous Indicators Applied to Indigenous People

The dearth of Indigenous or traditional indicators in outcomes measurement systems for Aboriginal populations typically results in an over-reliance on non-Indigenous systems to tell a story about Aboriginal people. In the Canadian health outcomes measurement context, most indicators currently in use were developed without considering First Nations interests, frameworks or realities, and as such, often miss issues that are of importance to First Nations communities.[97] Health and social indicators that capture distinct historical, social and cultural contexts of Indigenous communities can play important roles in informing child and family programs and their evaluation. However, indicators that are framed from a non-Indigenous perspective will not adequately reflect Indigenous concerns from the holistic approach espoused in communities.[98]
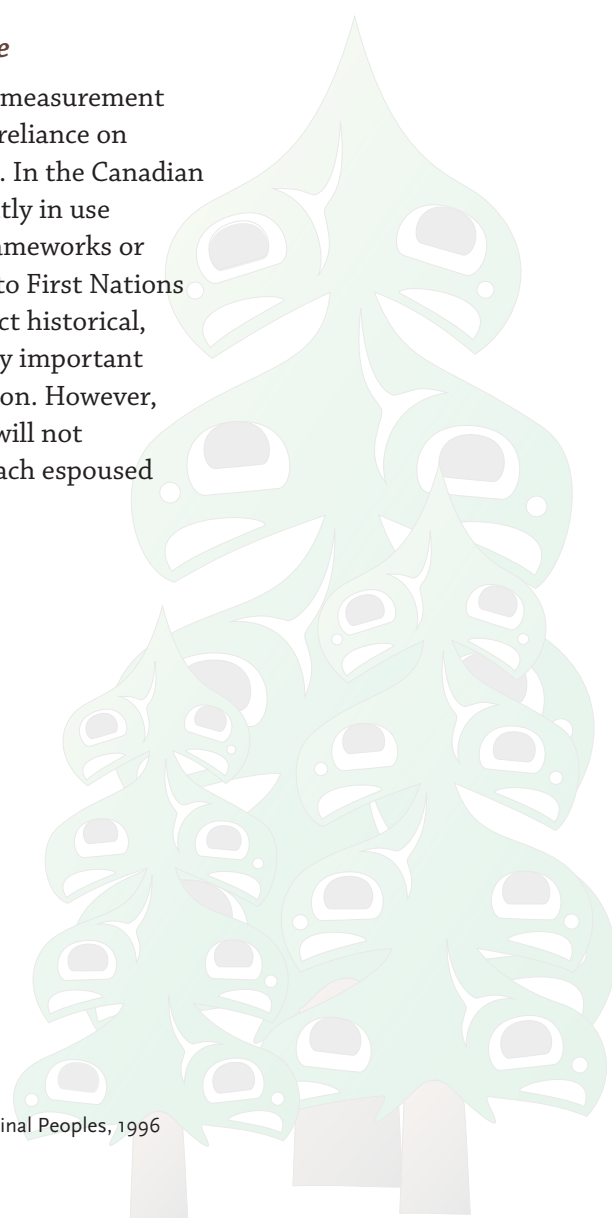
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94 National Aboriginal Health Organization, 2007
95 Ratima et al., 2006
96 Trocmé 2003
97 National Aboriginal Health Organization, 2007
98 As cited in Marks et al., 2006: Donna Cona, 2004; Royal Commission on Aboriginal Peoples, 1996

The Capacity Required for Measurement

Systems for measuring and evaluating outcomes have been noted as costing anywhere from $35,000 to $300,000,[99] and requiring considerable resources to ensure effectiveness. A 2009 review of health performance measurement systems currently available for First Nations, Inuit and Métis people in Canada[100] found that for most systems, there was inadequate community infrastructure and human resources to support the collection, analysis and response to Indigenous-specific health indicators. In the US, the Circles of Care initiative for American Indian and Alaska Native communities noted that outcomes measurement systems can be demanding, time-consuming and burdensome, and may interfere with a program's natural granting cycle, which often requires unique outcomes reports.[101]

Conclusion

Overall, there are myriad factors associated with developing an Indigenous framework for measuring outcomes. Remaining anchored in an Indigenous worldview can provide the way forward to examining these numerous methodological issues, spanning from the objectives and purpose of measurement; methods used to collect, count and validate evidence to tell a meaningful story; and intentional usage of language to express the ideas and values embedded in a framework.

The inherent inclusion of culture, community, and multiple ways of knowing (visions, feelings, sensory experiences, and traditional teachings)[102] in an Indigenous approach to measuring and evaluating outcomes may result in a product that looks very different from more mainstream frameworks. That is, an Indigenous approach should prepare us for the possibility that measurement will require ample time, community input, and ingenuity towards developing a system that may stand in stark contrast to a Western-European approach to outcomes measurement.

An Indigenous framework for measuring and evaluating outcomes will help to ensure that measurement, in whatever form, will remain relevant to the Aboriginal community it is designed to serve. When building an Indigenous framework for measuring outcomes, Shawn Wilson reminds us that an Indigenous approach "…is the knowing and respectful reinforcement that all things are related and connected…the voice from our ancestors that tells us when it is right and when it is not."[103]
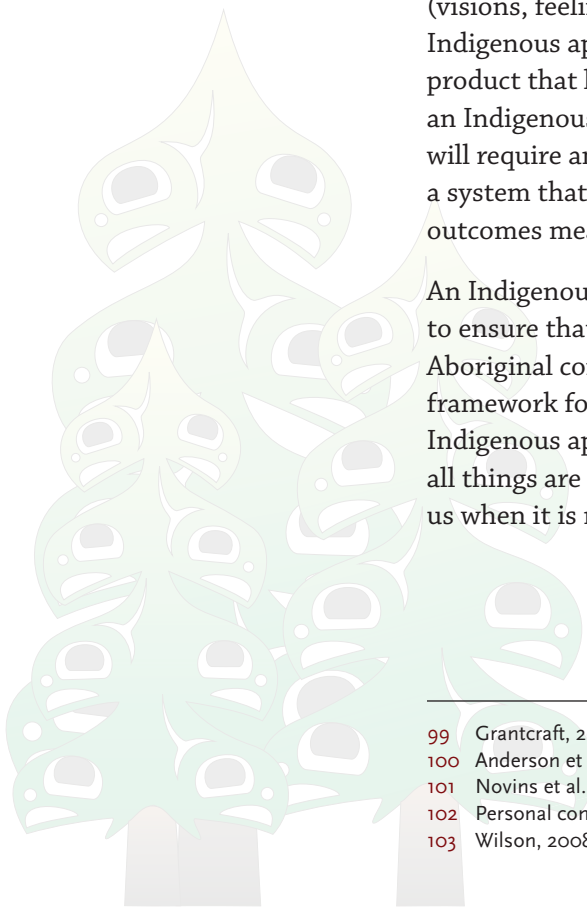
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99   Grantcraft, 2006
100   Anderson et al., 2009
101   Novins et al., 2004
102   Personal communication, Wedlidi Speck, February 2, 2010
103   Wilson, 2008, p.60

Literature Review Methodology

Published references were identified by searching academic search engines: PsycINFO, Medline, Social Work Abstracts, Bibliography of Native Americans, Race Relations Abstracts, and Academic Search Premier. The following descriptors were used: "outcomes" or "outcomes measurement" or "outcomes measurement framework" and "Aboriginal" or "First Nations" or "Indigenous" and "Canada" and "child welfare outcomes."

Ancillary and unpublished references were identified through the search engine Google with use of the terms "Indigenous" and "outcomes" or "measurement," "Indigenous outcomes measurement framework," and "Indigenous research." References were also located through bibliographic scanning, website review of health and human service agencies, and recommendations from Indigenous scholars.

Criteria for inclusion or exclusion in the literature review was the existence of an application towards outcomes or measurement frameworks in an Indigenous content.
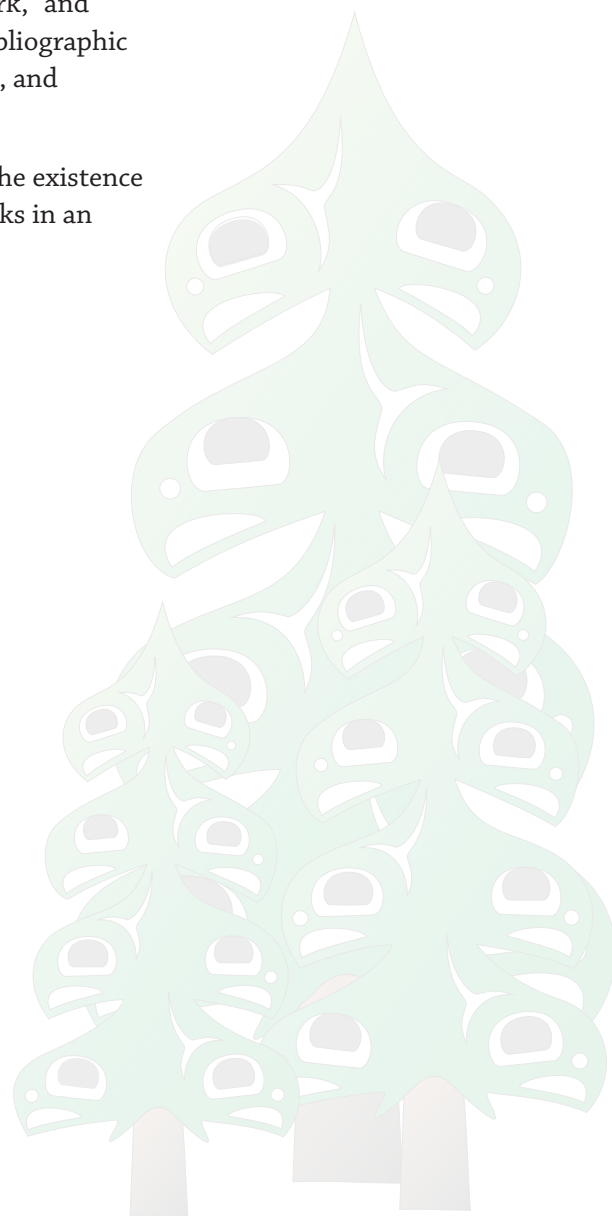
Appendix 2
Glossary of Terms

Domains: Domains are broad areas that have been identified as being an important area to the topic of interest. A domain identifies key issues that need to be measured by specific indicators.[104]

Indicators: Indicators are measurements, signs or gauges that reflect what we believe is most important toward measuring an outcome.[105] When combined, indicators contribute to an overall picture. Indicators may be directly or indirectly related to the outcome, and may be organized into various indicator topics or domains. Indicators can be important tools for prioritizing needs and service, and whether or not strategies have an impact.[106] Indicators are measured through various measurement tools or measures.

Indicators can be viewed as "good," when they have the following elements:[107]

    i.   **Validity:** An indicator is valid if it actually measures what it is supposed to be measuring.

    ii.   **Reliable:** A measure is reliable if under the same circumstances, the same result (or close to the same result) is produced every time.

    iii.   **Sensitivity:** An indicator is sensitive if it can measure differences (e.g., between groups) or changes over time that are of interest to the user.

    iv.   **Acceptability:** An indicator is acceptable if it is understandable, credible and useful to its intended users. However, "what may be credible and useful to an academic or government agency may differ from what is acceptable to First Nations."[108] The notion of acceptability may be understood in terms of community and cultural appropriateness.

    v.   **Feasibility:** An indicator is feasible if it can be reasonably collected and managed with available human and financial resources.

    vi.   **Universality:** An indicator that is universal can be used in different populations and settings, although its universality may not always apply.

    vii.   **Inclusiveness:** An indicator that is developed through an inclusive First Nations process is more likely to be relevant and useful.
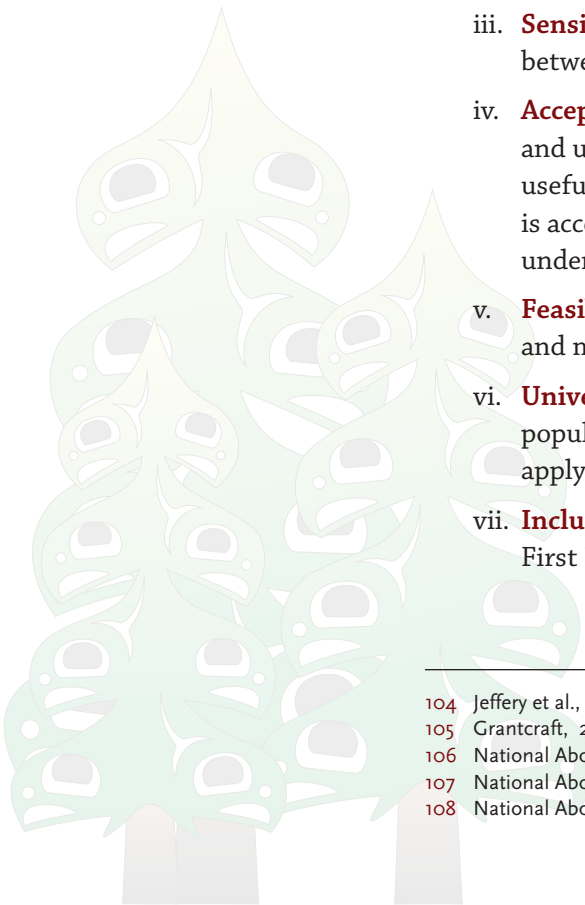
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104 Jeffery et al., 2006
105 Grantcraft, 2006
106 National Aboriginal Health Organization, 2007
107 National Aboriginal Health Organization, 2007
108 National Aboriginal Health Organization, 2007, p.2

Outcomes: Outcomes have been defined as the observable results of programs that are created and funded in hopes of making a difference.[109]

Outcomes Measurement: Measurement is about translating constructs into observables,[110] through focusing in on what difference a program is making.[111] Some proponents of mainstream outcomes measurement ask: "If you can't measure it, how can you know it is happening?"[112] In describing the purpose of measurement to program staff, one grant-maker was quoted as saying:

> "What do I say to someone who truly believes his or her work can't be reduced to concrete measurement?...Ask yourself: 'What information do I need in order to know I am doing a good job?'"[113]

Proxy Indicators: Proxy indicators are used as an alternative measure when you cannot measure the exact thing of interest, that is, when direct indicators are not available. For example, food bank visits can be viewed as a proxy measure of poverty.[114] Proxy measures can be a useful substitute for the real thing, and may use measures of outputs to measure outcomes. They are especially useful where there are financial barriers to validly measuring outcomes and are commonly easier to measure.[115]

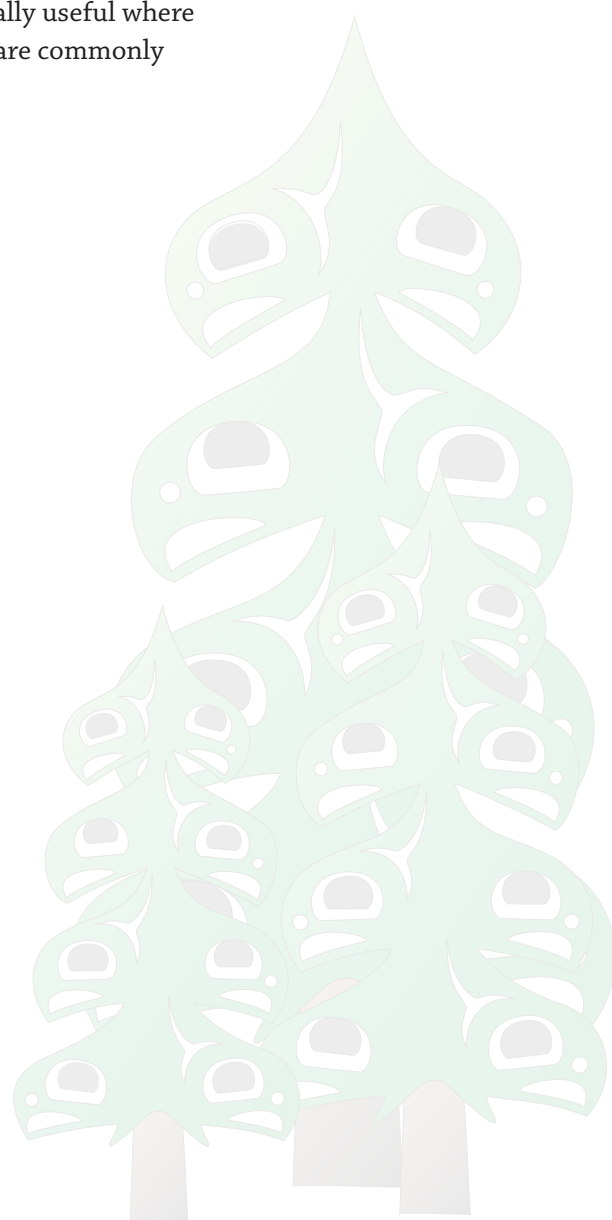109   National Aboriginal Health Organization, 2007
110   McDavid & Hawthorn, 2006
111   Grantcraft, 2006
112   McDavid & Hawthorn, 2006
113   Grantcraft, 2006
114   Grantcraft, 2006
115   Grantcraft, 2006

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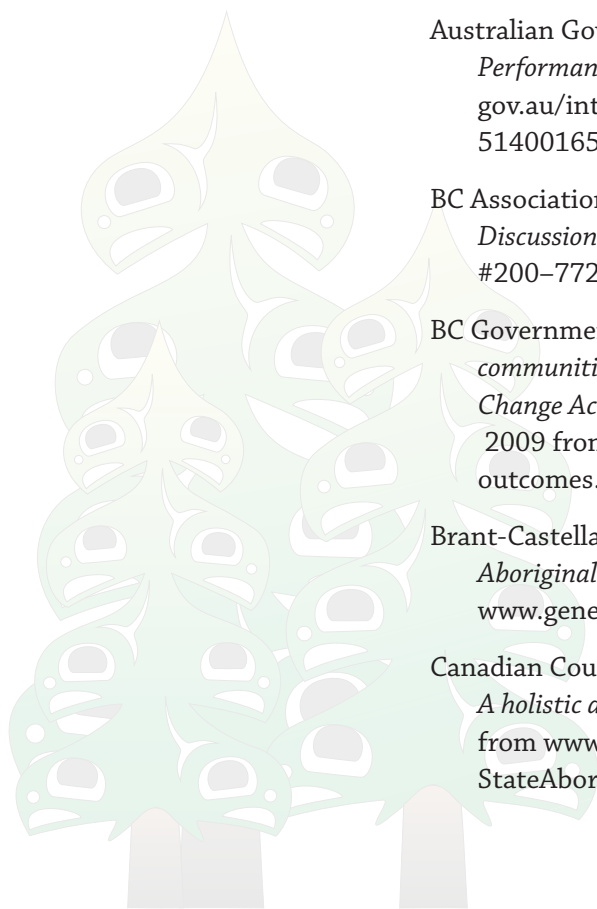
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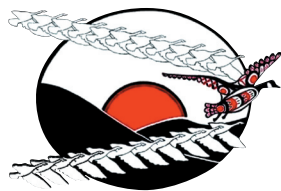
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