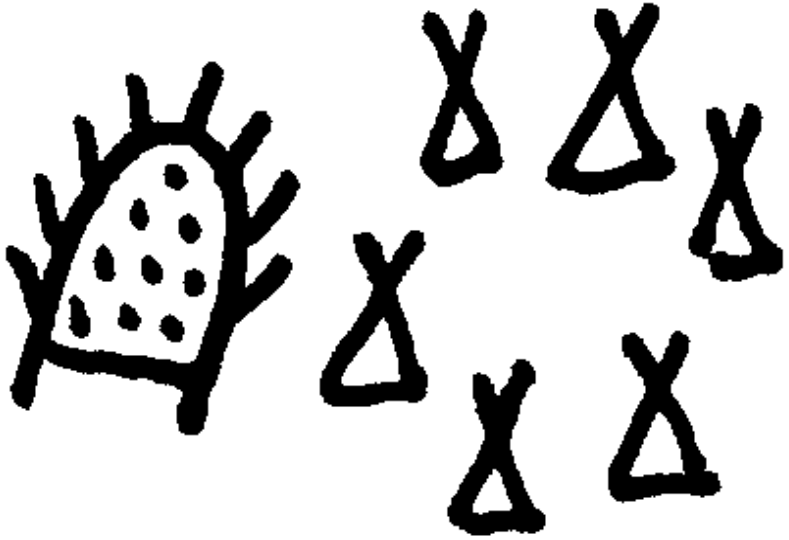
The Alberta First Nations Information Governance Centre

# Jurisdiction in First Nations Public Health

Bonnie Healy, RN
AFNIGC Executive Director
FNIGC Chair
AFN-ISC NFR Committee Member
May 2nd, 2019

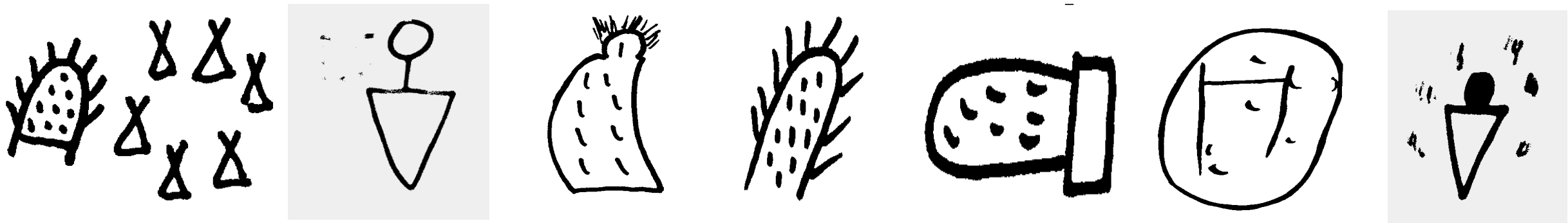
1764



*“… About one third of us died, but in some of the other camps there were tents in which every one died. When at length it left us, and we moved about to find our people, it was no longer with the song and dance; but with tears, shrieks, and howlings of despair for those who would never return to us…*

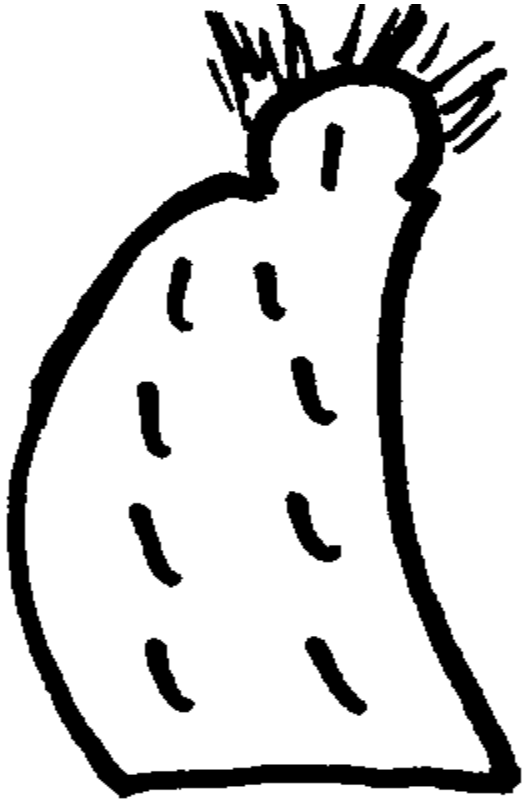
*… Our hearts were low and dejected, and we shall never be again the same people.”*

*Saukamappe*



1764 1780 1837 1864 1868 1883 1893

# 1837



*"Not a soul was to be seen, and a funeral stillness rested upon it. They approached with anxious hearts and awed by the unwonted quiet, for the vicinity on a Indian village is not apt to be the scene of oppressive silence. Soon a stench was observed in the air, that increased as they advanced; and presently the scene with all it's horror was before them. Hundreds of decaying forms of human beings, horses and dogs lay scattered everywhere among the lodges…"*

Bradley; vol.III 221-225

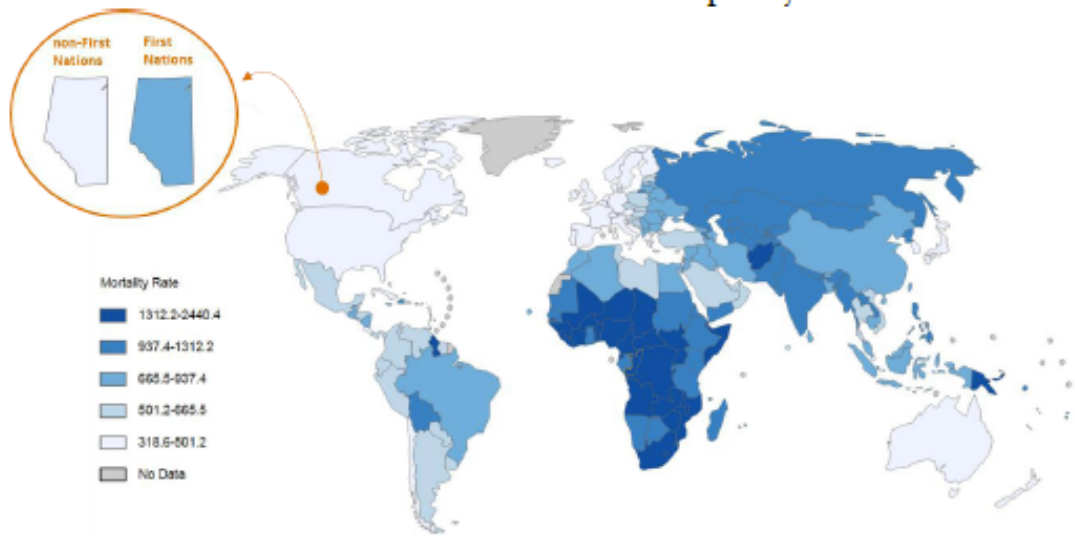
# Mortality Rates in First Nations in Alberta

***Age-standardized mortality rates for all causes of death in both sexes combined by country and First Nations status (Alberta, Canada), 2012***

In this edition of *First Nations – Health Trends Alberta*[1] age-standardized mortality rates (ASMRs)[2] for all causes of death in both males and females combined are presented for 172 countries and for non-First Nations and First Nations in Alberta separately.

Country-specific ASMRs for all causes of death were reported by the World Health Organization.[3] In 2012, mortality rates ranged from 318.6 per 100,000 population in Japan to 2440.4 per 100,000 in Sierra Leone. Countries with low mortality rates included Switzerland (331.4) and Italy (339.2). High mortality rates were observed primarily in Africa, with mortality rates in countries such as Chad and Lesotho reported as 1897.9 and 1924.7, respectively.

Amongst the 172 countries reported, Canada was ranked 12th in 2012 with an 'all cause' mortality rate of 372.0 per 100,000 population.




## Mortality rates for First Nations in Alberta are double those in non-First Nations

In Alberta, the ASMR for all causes of death for non-First Nations in 2012 was 358.7 per 100,000 (434.6 per 100,000 males and 293.1 per 100,000 females). This ASMR was comparable to countries such as Iceland, Spain, and Israel. For First Nations in the province, however, the ASMR was double that of non-First Nations: 742.1 per 100,000 population. This was true for both males and females with ASMRs of 835.7 and 659.8 per 100,000, respectively. Countries with ASMRs similar to First Nations in Alberta included Guatemala, Malaysia, and Jordan.

1 This is the second in a series of First Nations-specific Health Trends compiled in collaboration by Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC). To suggest future topics, please contact the AFNIGC (communications@afnigc.ca; 403-539-5775).
2 All mortality rates reported here were standardized using the WHO World Standard Population (http://www.who.int/healthinfo/paper31.pdf?ua=1).
3 World Health Organization. Global Health Observatory data repository. Accessed online December 8, 2015 (http://apps.who.int/gho/data/node.main.18?lang=en).
Note: The world map was created using M³D³ (CC-BY-SA Morten Ervik) and modified to include Alberta maps.

**Alberta Health, Health System Accountability and Performance, Surveillance and Assessment Branch**
Find more information on health indicators on the Interactive Health Data Application (IHDA) website
**Email: Health.Surveillance@gov.ab.ca**
www.ahw.gov.ab.ca/IHDA_Retrieval/

# Deaths due to unintentional injury in First Nations people in Alberta

***Age-standardized rates of death due to unintentional injury by sex and First Nations status, Alberta, 2014***

In this edition of *First Nations – Health Trends Alberta*[1] age-standardized mortality rates (ASMRs) for death due to unintentional injury are presented by sex for non-First Nations and First Nations people in Alberta separately.

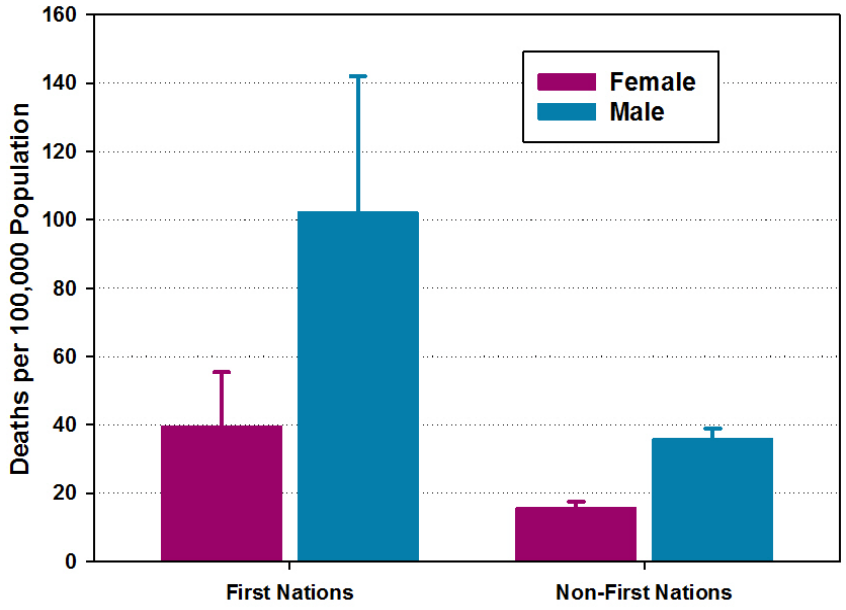
In 2014, there were 973 deaths due to unintentional injury in Alberta (92 in First Nations). The majority of these deaths occurred in males: 63 deaths in male First Nations (68.5 percent of total in male FNs) and 581 deaths in male non-First Nations (66.4 percent of total in male non-FNs).

While a large proportion of deaths due to unintentional injury in non-First Nations occurred in people 70 years of age or older (42.2 percent), this was not the case in First Nations: only 2.2 percent of total deaths occurred in First Nations past the age of 70. For First Nations, the largest burden of deaths occurred between the ages of 20 and 49 (59.8 percent of total).

## Rates of death due to unintentional injury are over 2.5 times higher in First Nations compared to non-First Nations

The ASMR for death due to unintentional injury for non-First Nations in 2014 was 25.2 per 100,000 (15.6 per 100,000 females and 35.8 per 100,000 males). For First Nations in the province, however, the ASMR was more than 2.5 times that of non-First Nations. (68.8 per 100,000 population) This was true for both females and males with ASMRs of 39.6 and 102.1 per 100,000, respectively.

The majority of deaths in First Nations people due to unintentional injury in 2014 were caused by transport related collisions/crashes (50 percent of total deaths in FNs: 29 deaths in males; 17 deaths in females). Other causes of death due to unintentional injuries this year included "slipping, tripping, stumbling, & falls" (9 deaths in total) and "unintentional non-transport drowning and submersion" (11 deaths in total). Comparisons across populations for specific causes of death due to unintentional injury will be explored further in a future FN-HTA.




1 This is the 11th in a series of First Nations-specific Health Trends compiled in collaboration by Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC). To suggest future topics, please contact the AFNIGC (communications@afnigc.ca; 403-539-5775).


**Email: Health.Surveillance@gov.ab.ca**
www.ahw.gov.ab.ca/IHDA_Retrieval/

# Interrupting Toxic Stress

*A Social Congress for Indigenous Health*

UNIVERSITY OF CALGARY

**A forum to explore responsibilities and opportunities for the prevention of toxic stress**

- What can communities do?
- What can policy makers do?
- What can the U of C do?

Monday June 4, 2018

University of Calgary
Health Sciences Centre

COMMUNITY ENGAGEMENT — LOCAL & GLOBAL
Partnering for Healthy Communities

# OUTCOMES

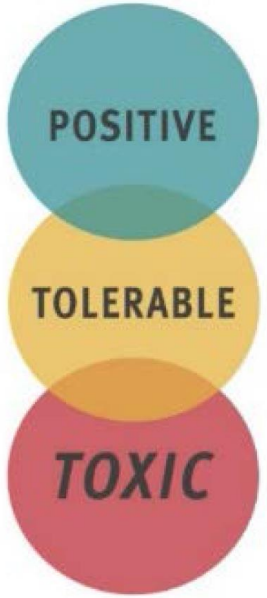
1. Share how toxic stress impacts youth and families in each of our contexts

2. Explore policies & structures that could better support all in preventing & mitigating toxic stress

3. Formulate an idea/intervention that can ’interrupt toxic stress’ for Indigenous youth and families

# Toxic Stress

Strong, frequent, or prolonged exposure to adverse events




Brief increases in heart rate, mild elevation stress hormones

Serious, but temporary responses to stress, buffered by supports

Prolonged activation of stress response, absence of protective relationships

Especially in early life, when stress is experienced chronically, uncontrollably, or without access to support, it may provoke responses that adversely impact brain architecture

## Proximal

- Conditions that have a direct impact as a stressor on physical, emotional, mental or spiritual health
  - Employment, income, education, physical environment, food insecurity, health behaviours…

## Intermediate

- Factors related to community infrastructure, systems, resources and capacities that influence the proximal determinants of health
- Community infrastructure (including resources and capacities), systems (health care and educational), environmental stewardship, and cultural continuity

## Distal

- The political, economic and social contexts that construct intermediate and proximal determinants and have the most profound influence on health

Reading, C.L. & Wien, F. (2009). Health Inequalities and Social Determinants of Aboriginal Peoples' Health. Prince George, BC: National Collaborating Centre for Aboriginal Health.

# First Nations Health Policy and Legislation in Canada

# Primary Health Care

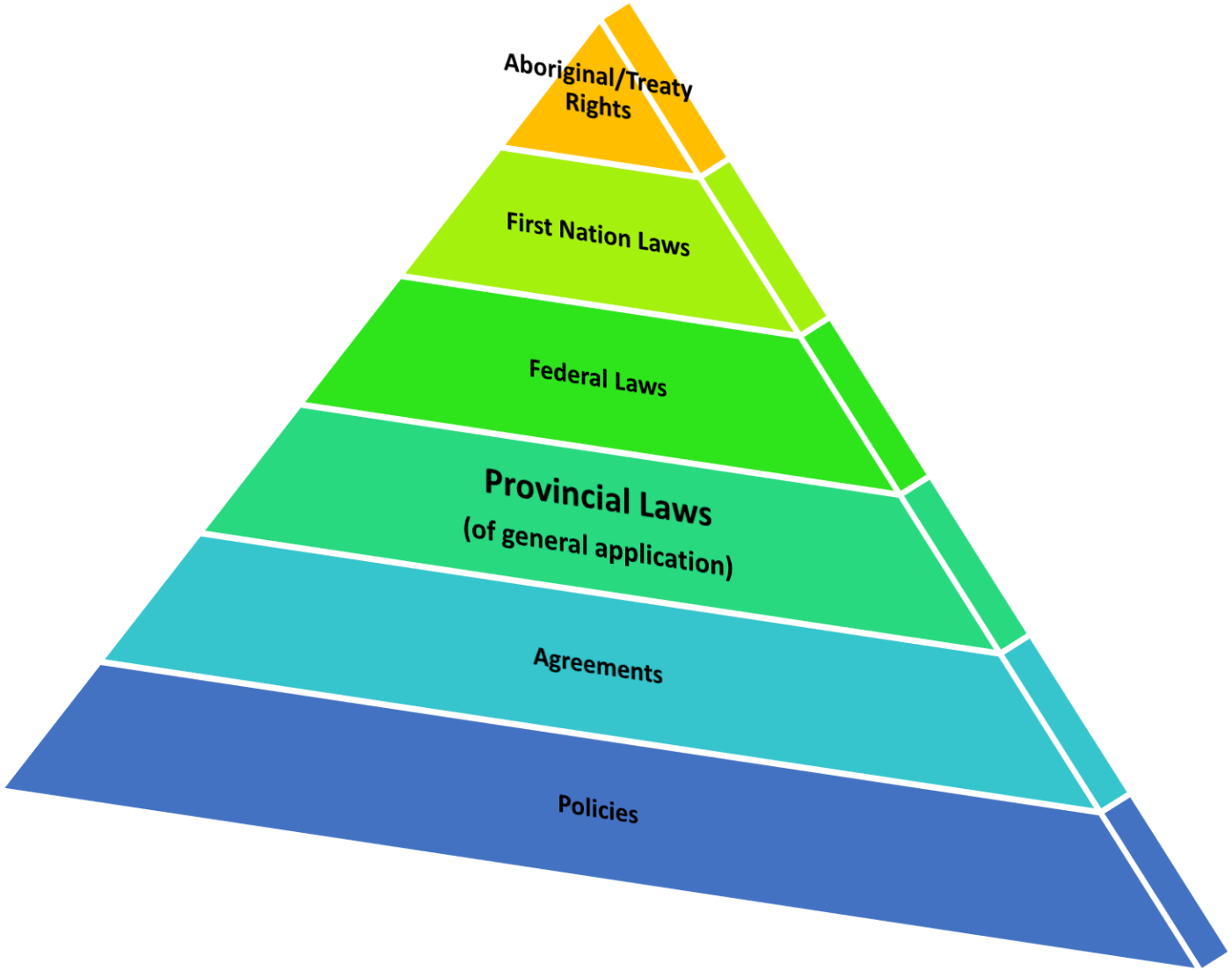
The role of Primary Health Care (PHC) as outlined by the Declaration of Alma Ata, includes promoting health, preventing disease and managing the poor health of local populations by maximizing the use of local resources (Alma Ata Declaration, 1979). Access to appropriate, affordable, acceptable and comprehensive PHC is critical for improving health.

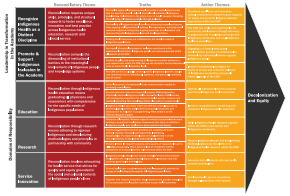
# Advancing Indigenous Primary Health Care Policy in Alberta

- **Lack of integration** of Indigenous PHC services rendering pockets of **promising innovation vulnerable** to political currents.

- The challenge ahead involves **how best to scale pockets of innovations towards integrated initiatives** with measurable impacts across Indigenous health systems, with sound evidence to guide future reforms.

# Hierarchy


Aboriginal/Treaty Rights
First Nation Laws
Federal Laws
Provincial Laws
(of general application)
Agreements
Policies

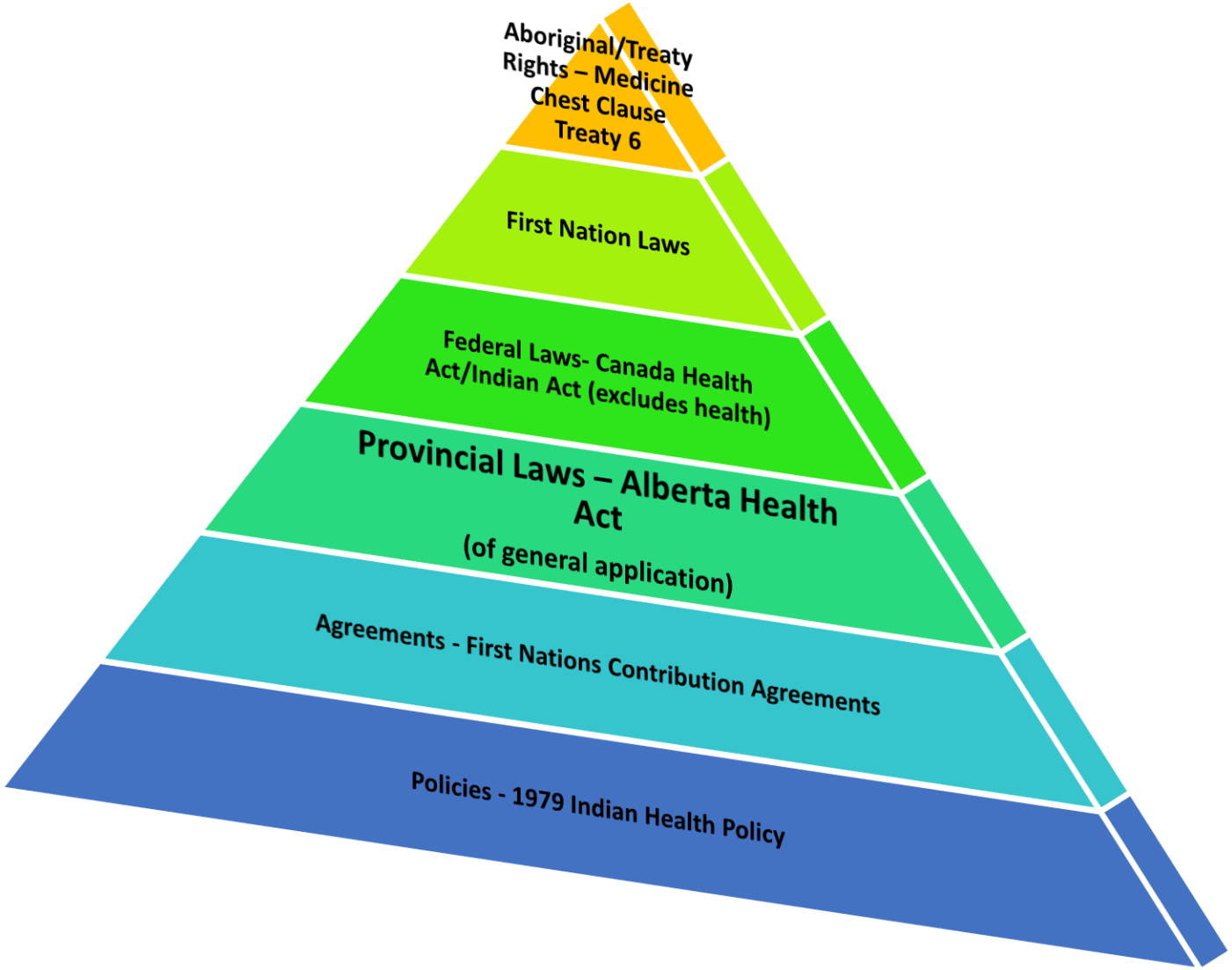


# Principle TRUTHS

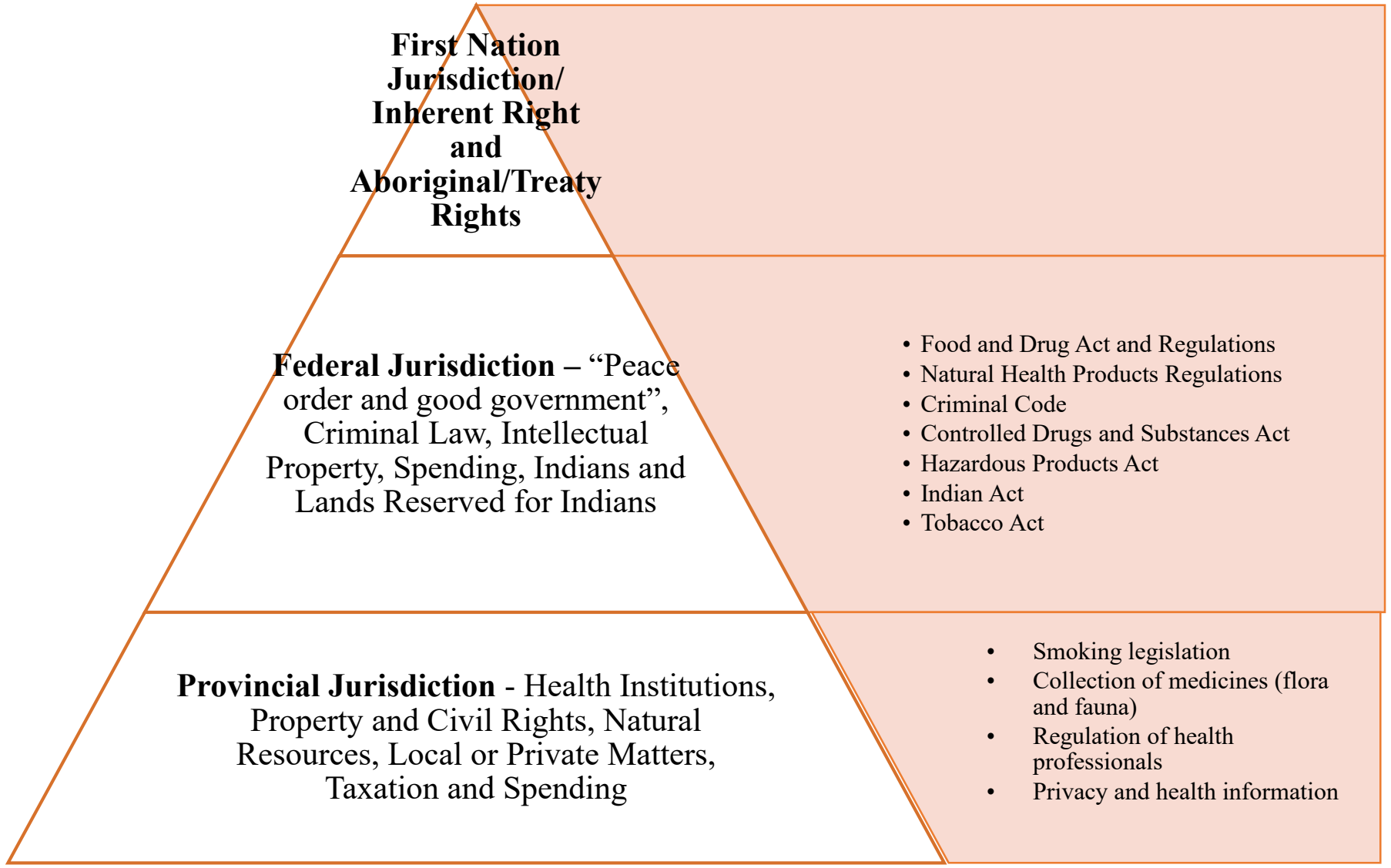
1. Health status of Indigenous people is rooted in social determinants that are specific to social, cultural and political contexts of Indigenous populations.
2. Colonization is a prime driver of social and health inequities, disrupting the wellbeing of Indigenous people through exclusion.
3. Healing involves addressing impacts from multigenerational adverse life experiences, rectifying ongoing social resource inequities and reconnecting with Indigenous culture and healing practices.
4. Complicity with ongoing colonization manifests as a health care system that is too often ***under resourced*** and ***ill equipped*** to address the causes of health disparities specific to Indigenous populations.

# First Nations Health Delivery Timeline

# Jurisdictional Framework for First Nations Health within Canada is a patchwork of laws



# Laws to Regulate



# Impact of Federal Laws on Traditional Medicine

- The Natural Health Products Regulations (NHPR) enacted under the Food and Drug Act
- Criminal Code of Canada
- Tobacco Act

# Impact of Provincial Law on Traditional Medicine

- Anti-smoking legislation
- Regulation of health professionals
- Health privacy legislation
- Collection of medicines (i.e. on public lands)

# Truth & Reconciliation Call to Action 19

We call upon the federal government, in consultation with Aboriginal peoples, to establish measurable goals to identify and close the gaps in health outcomes between Aboriginal and non-Aboriginal communities, and to publish annual progress reports and assess long-term trends.

# Alberta Health Trends completed in Partnership with AFNIGC, First Nations of Treaty 6,7,8, Alberta Health, and FNIHB (21 Health Trends and First Nations Opioid Report)

- Health Indicator Measurements – Recommended in TRC Calls to Action 19
  - Infant Mortality
  - Maternal Health
  - Suicide
  - Mental Health
  - Addictions
  - Life Expectancy
  - Birth Rates
  - Infant and Child Health Issues
  - Chronic Diseases
  - Illness and Injury Incidence
  - Availability of Appropriate Health Services

# Respectful relationships:

- Working Group Aim 2: Develop an Alberta First Nations Information Governance Agreement and Public Health Surveillance Framework

(ensure that data are managed and used in a way that fulfills legislative requirements while also taking into account the principles of OCAP®).

# Exploring First Nations members' emergency department quality of care through participatory research methods

**Patrick McLane[1,4], Lea Bill[2], Cheryl Barnabe[3], Nicole Eshkakogan[1], Brian Holroyd[4,1], Rhonda Rosychuk[4], Darcy Jagodzinsky[2], Sandra Lamouche[5], Kris Janvier[5], Anne Bird[6], Kay Rittenbach[1], Bonita Saddleback[7], Eunice Louis[7], Amy Colquhoun[8], Ann Phillips[9], Tina Apsassin[2], Maria Ospina[4], Richard Oster[4], Tracy Lee[1], Chelsea Crowshoe[1], Bonnie Healy[2]**

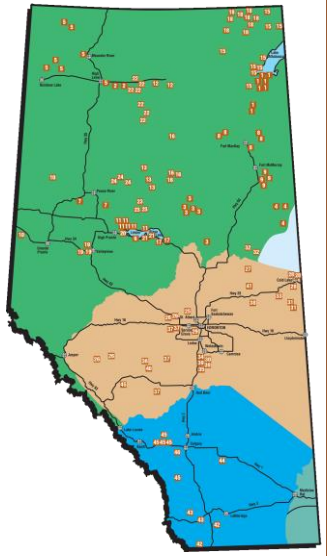
1 Alberta Health Services, 2 Alberta First Nations Information Governance Centre, 3 University of Calgary, 4 University of Alberta, 5 Treaty Eight First Nations of Alberta, 6 Yellowhead Tribal Council, 7 Maskwacis Health Services, 8 Alberta Health, 9 Anne Johnston Health Station Tobias House Attendant Care (ON)

## Introduction

Emergency Departments (EDs) are frequently the first point of entry to access health services for First Nation (FN) members. In Alberta, FN members visit EDs at almost double the rate of non-FN persons. This project aims to understand quality of care for FN members in Alberta

## Methods

This is participatory research that acknowledges the equal value of both Western and Indigenous worldviews. FN leaders and non-FN researchers are full partners in the development of the research project. Partners from the project have been engaged in each of the 3 Treaty Areas in Alberta.



## Outcomes

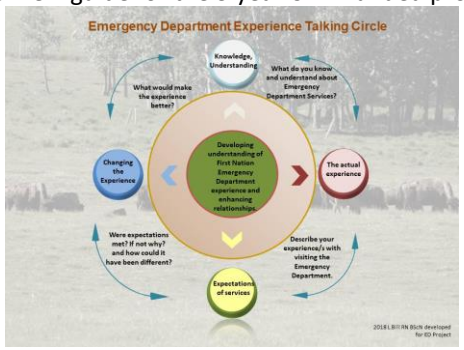
- A co-created project application was submitted to CIHR in Fall of 2017 and successfully funded for 3 years.
- Grant funds from Campus Alberta, and contributions from Maskwacis Health Services, Alberta Health Services and the Alberta First Nations Information Centre allowed for a Provincial Engagement meeting in February 2018.
- Research is:
  - ethically conducted.
  - compliant with *Tri-Council Policy for Research Involving Humans - Research Involving First Nations, Inuit and Metis Peoples of Canada*.
  - in keeping with FN principles of Ownership, Control, Access, and Possession® of FN information.

## Engagement Timeline:

- **Dec-March 2016** — First Project Discussions with AFNIGC
- **April-Present** — Monthly Partner meetings: AFNGIC, Yellowhead Tribal Council, Treaty 8, Researchers, AHS
- **Jan 9, 2018** — Planning with Elders (Calgary)
- **Jan 22, 2018** — Planning meeting with Elders (Edmonton)
- **Feb 12-13, 2018** — Provincial Engagement Meeting (Edmonton)

## Next Steps

**Qualitative Research**: Based on existing literature, and through engagements with Elders and partners, the questions and topic areas in the image below were developed for qualitative data collection at the February 2018 engagement. Results will inform development of an interview guide for the 3 year CIHR funded project.



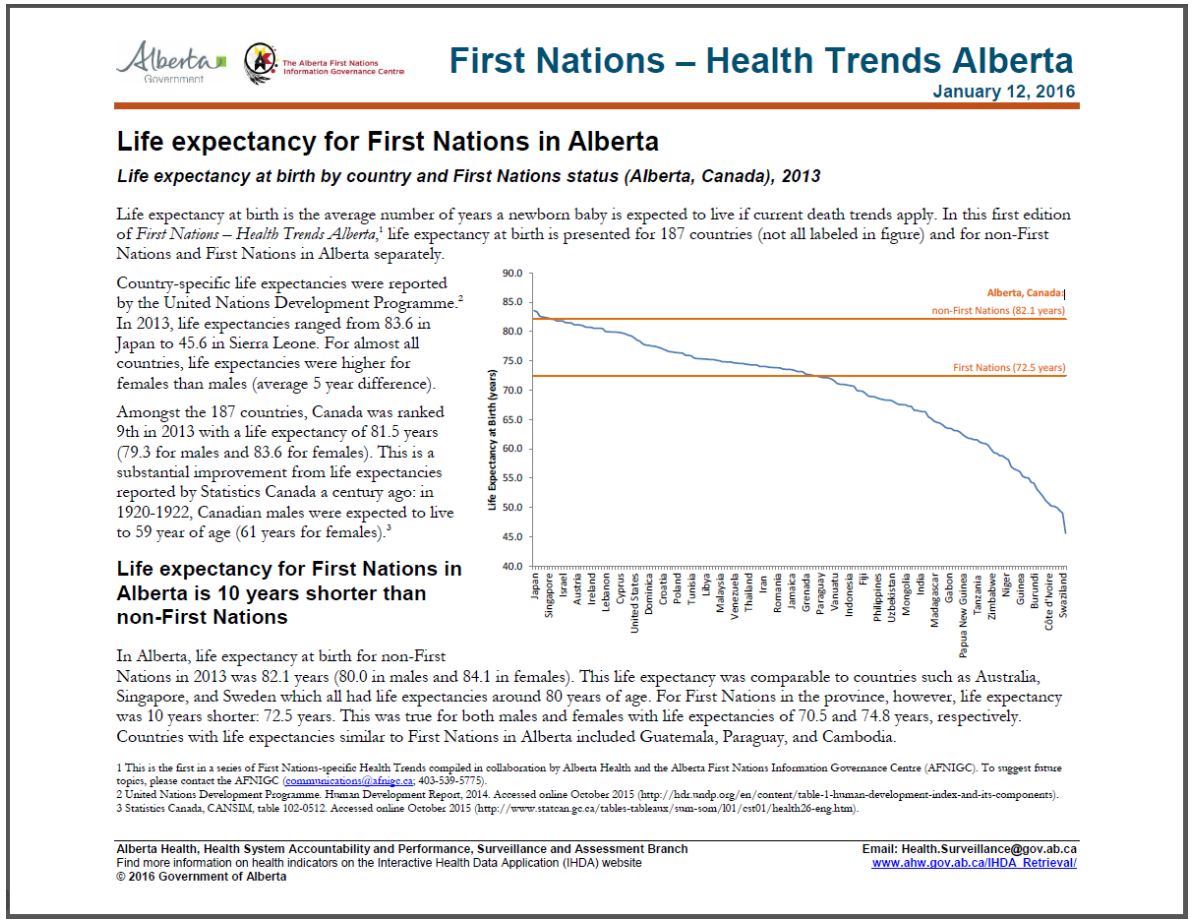

**Quantitative Research**: Quantitative analysis will examine differences in ED quality of care using established outcome measures for FN and non-FN patients.

**First Nations' Definitions of Quality of Care:** We will develop quality of care definitions from First Nations perspectives.

## Conclusion

Understanding FN ED experience and bringing FN perspectives to Western conceptions of the goals and provision of ED care are important steps toward reconciliation.

# Examples:



Alberta Government | The Alberta First Nations Information Governance Centre

## First Nations – Health Trends Alberta

January 12, 2016

### Life expectancy for First Nations in Alberta

***Life expectancy at birth by country and First Nations status (Alberta, Canada), 2013***

Life expectancy at birth is the average number of years a newborn baby is expected to live if current death trends apply. In this first edition of *First Nations – Health Trends Alberta*,[1] life expectancy at birth is presented for 187 countries (not all labeled in figure) and for non-First Nations and First Nations in Alberta separately.

Country-specific life expectancies were reported by the United Nations Development Programme.[2] In 2013, life expectancies ranged from 83.6 in Japan to 45.6 in Sierra Leone. For almost all countries, life expectancies were higher for females than males (average 5 year difference).

Amongst the 187 countries, Canada was ranked 9th in 2013 with a life expectancy of 81.5 years (79.3 for males and 83.6 for females). This is a substantial improvement from life expectancies reported by Statistics Canada a century ago: in 1920-1922, Canadian males were expected to live to 59 year of age (61 years for females).[3]



### Life expectancy for First Nations in Alberta is 10 years shorter than non-First Nations

In Alberta, life expectancy at birth for non-First Nations in 2013 was 82.1 years (80.0 in males and 84.1 in females). This life expectancy was comparable to countries such as Australia, Singapore, and Sweden which all had life expectancies around 80 years of age. For First Nations in the province, however, life expectancy was 10 years shorter: 72.5 years. This was true for both males and females with life expectancies of 70.5 and 74.8 years, respectively. Countries with life expectancies similar to First Nations in Alberta included Guatemala, Paraguay, and Cambodia.

1 This is the first in a series of First Nations-specific Health Trends compiled in collaboration by Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC). To suggest future topics, please contact the AFNIGC (communications@afnigc.ca; 403-539-5775).
2 United Nations Development Programme. Human Development Report, 2014. Accessed online October 2015 (http://hdr.undp.org/en/content/table-1-human-development-index-and-its-components).
3 Statistics Canada, CANSIM, table 102-0512. Accessed online October 2015 (http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/health26-eng.htm).

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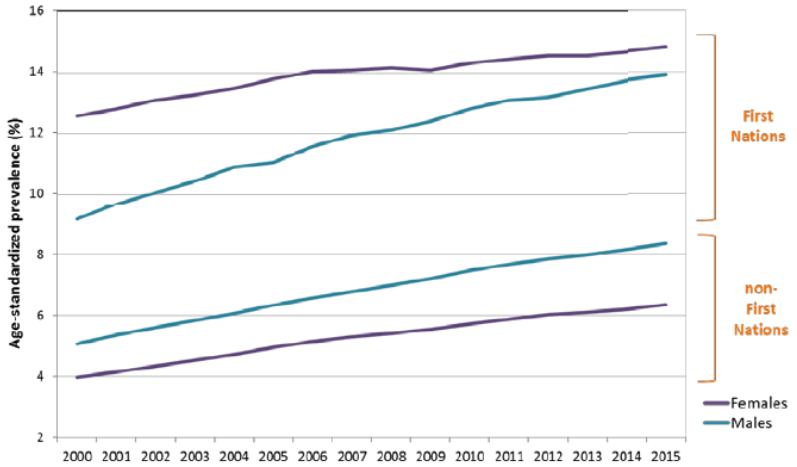
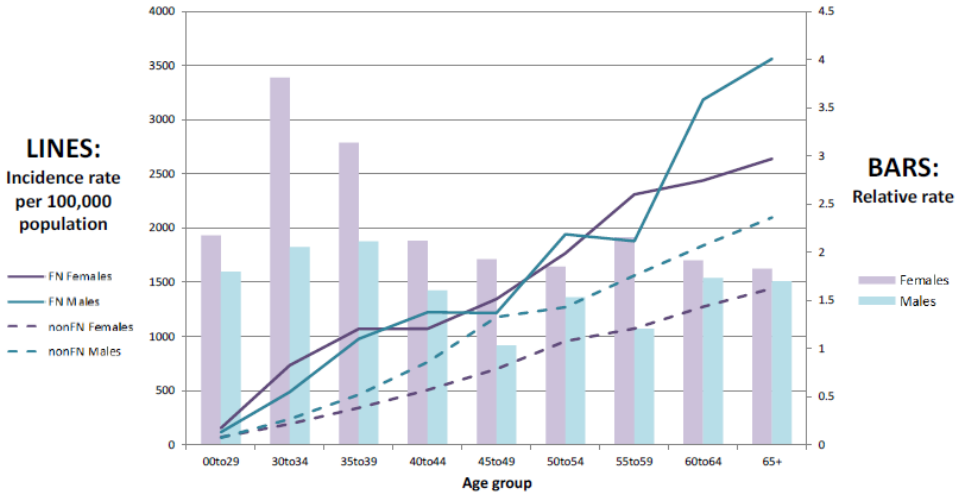
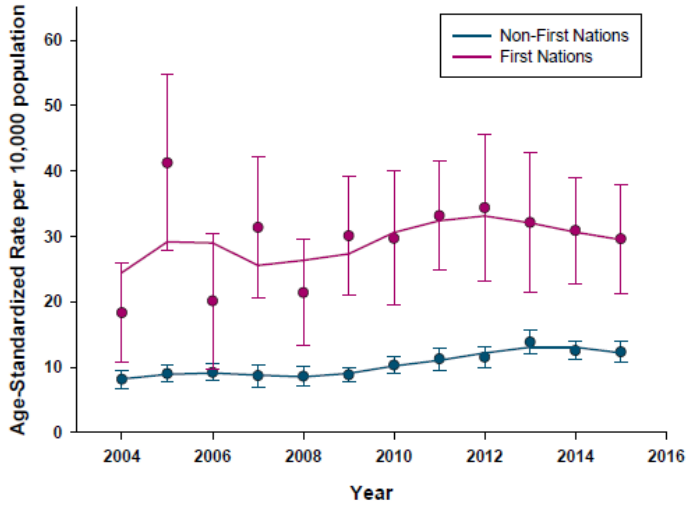
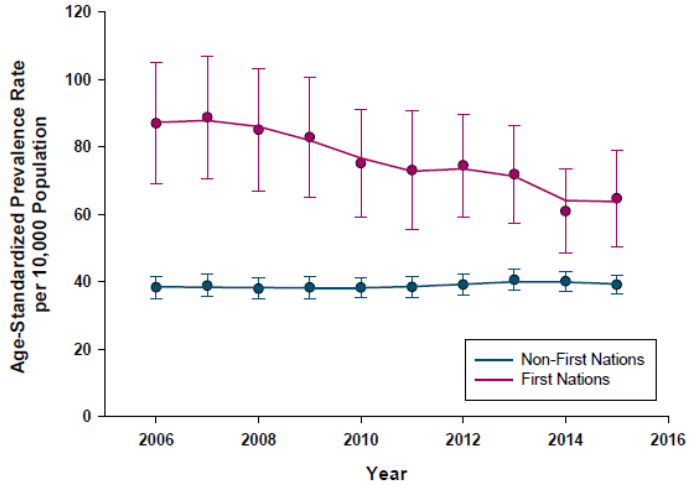
- Collaborative process
- Goal is to identify topics communities are interested in or would find useful
- Topic ideas to be brought to AFNIGC

# Examples:



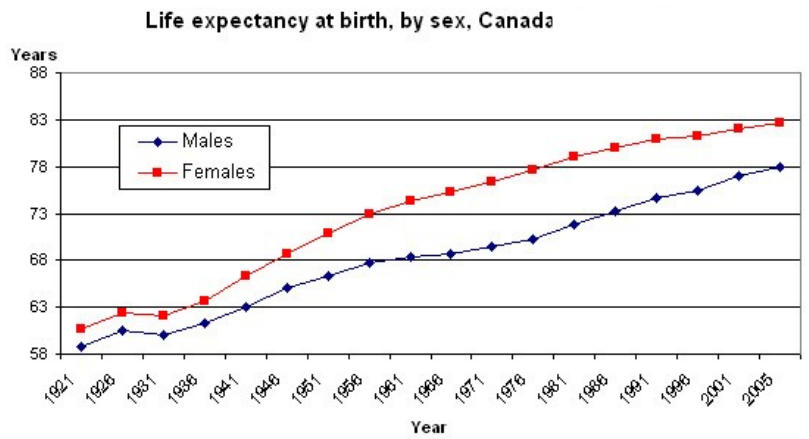




Diabetes series: prevalence, incidence, amputations, chronic dialysis

# Examples - considerations:



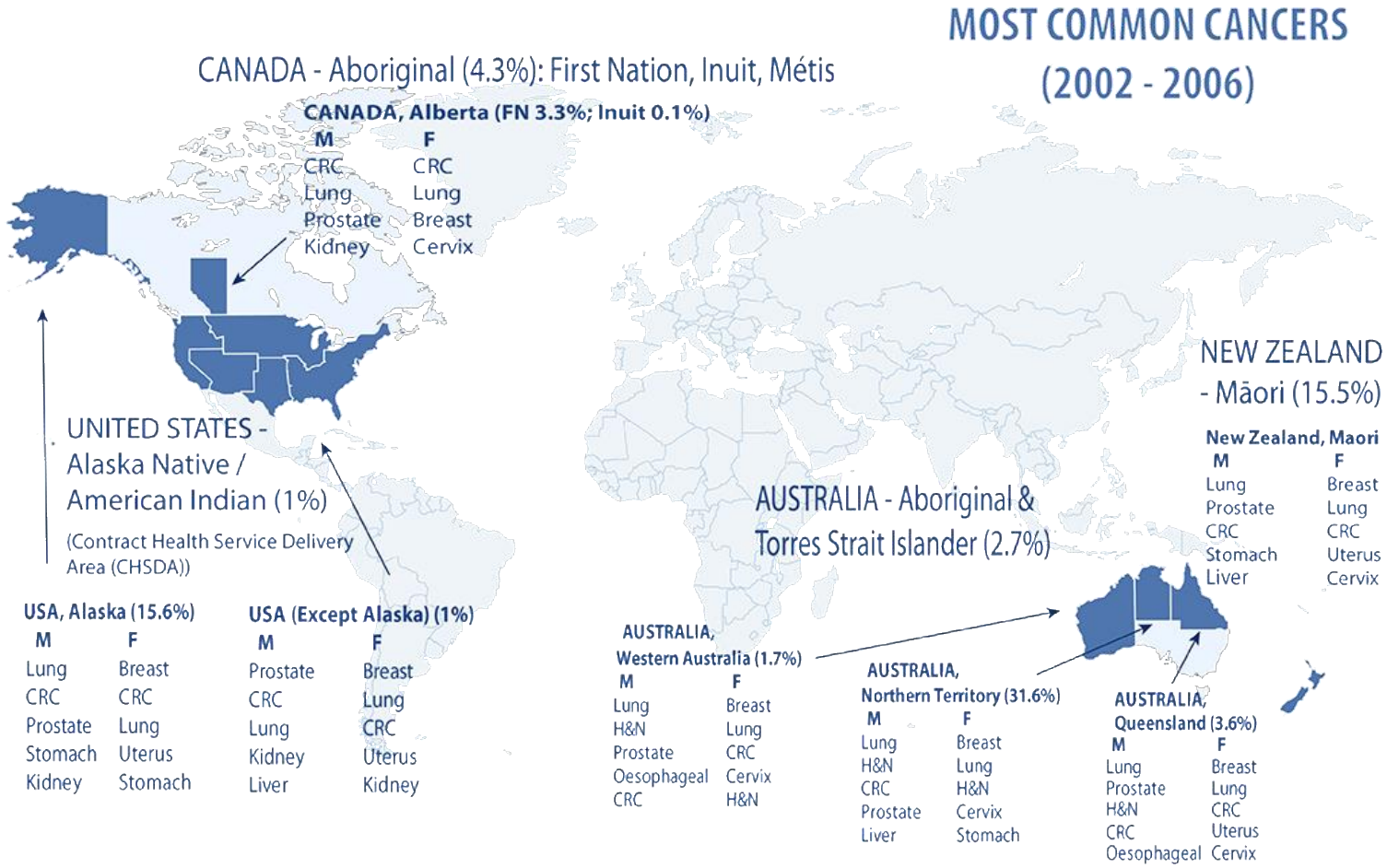

***Source:*** *1921 to 1981: Nagnur D. Longevity and Historical Life Tables, 1921 to 1981 (Abridged), Statistics Canada, Catalogue 98-506, 1986;*
*1986: Duchesne D, Nault F, Gilmour H, Wilkins R. Vital Statistics Compendium 1996, Statistics Canada, Catalogue 84-214, 1999;*
*1991 to 2005: CANSIM Table 102-0511, Life expectancy, abridged life table, at birth and at age 65, by sex, Canada, provinces and territories, annual.*

Trends in life expectancy over time for First Nations and non-First Nations in Alberta, 1999-2015


‘Population’ matters – may tell different stories

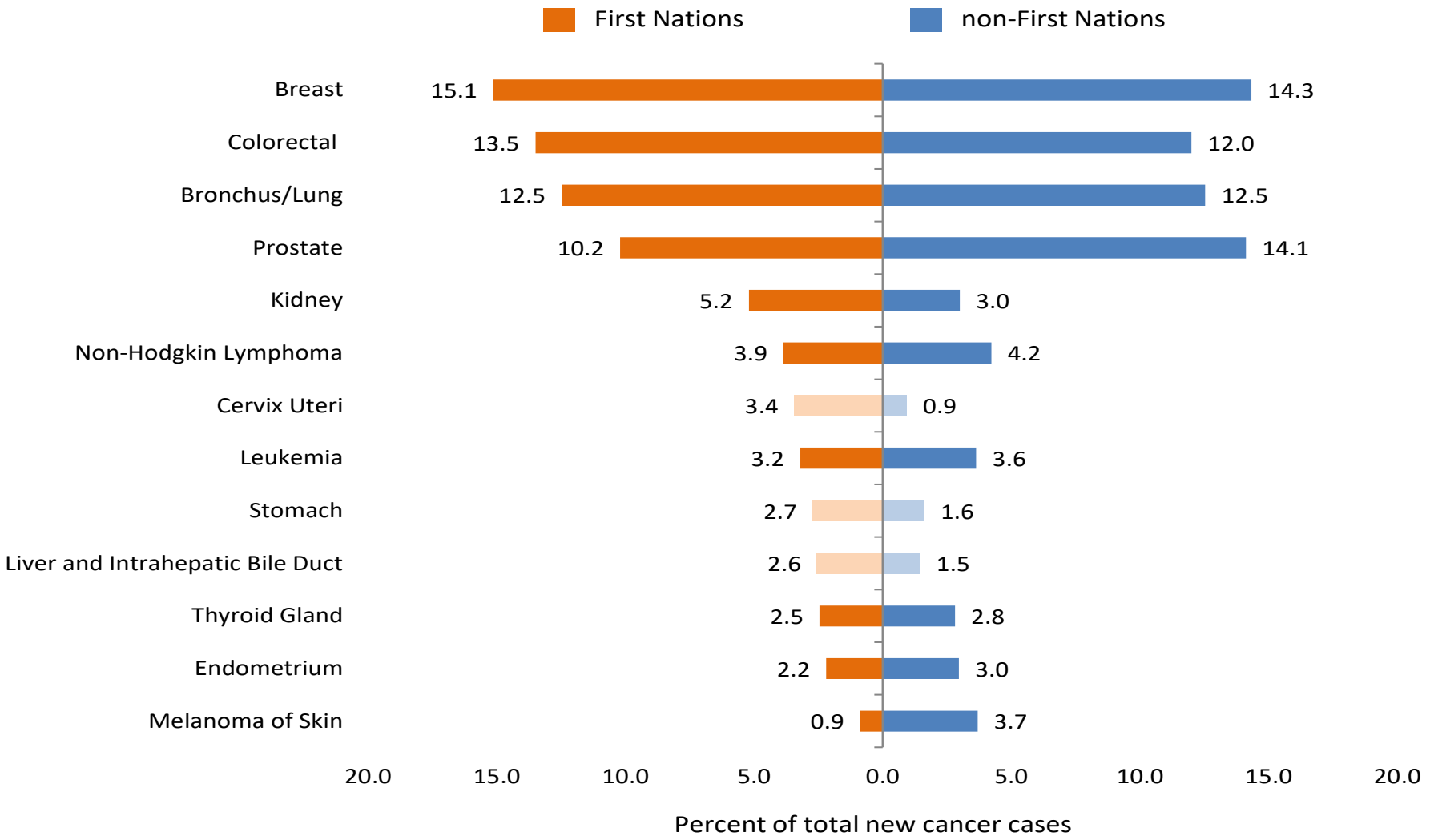
Provincial-level data informative; however, necessary to also consider group- or community-level data to develop more complete picture

# Cancer Incidence Rates in Indigenous populations in Australia, New Zealand, USA and Canada (Alberta), a population based comparative study



# Top Types of Cancer among First Nations in Alberta

***Proportion of total cancer cases by cancer type and First Nations status; 2006-2015***



# ACCESS

Access to care is an issue that contributes to poor health outcomes for First Nations.

In the recently released First Nations Regional Health Survey (RHS), respondents identified a number of health care barriers that include:

- the inability to cover childcare costs,
- difficulty arranging and paying for transportation costs,
- excessive wait times,
- inadequate
- and culturally inappropriate care
- and difficulty finding practitioners.

# Closing the Gap

- In Alberta Life Expectancy for:
  - Non-First Nations – same as Sweden, Singapore and Australia
  - First Nations – same as Cambodia, Guatemala and Paraguay

# Co-Management

- The experiences of co-management and decentralization provide for a number of policy implications to be drawn concerning the role of government. Pomeroy and Berkes suggest that co-management in Canada works on a “devolution” model between government and First Nations, primarily because land claims and treaties provide legally defined relationships between the two parties.
- Co-management assumes an equal access to information, with community having traditional knowledge and government having access to academic knowledge. For a co-management regime to be successful, government must have a legal regime in place for support. In Canada, true co-management can only exist between government and First Nations because land claim agreements provide legally defined rights.

# *Royal Commission on Aboriginal Peoples (1997)*

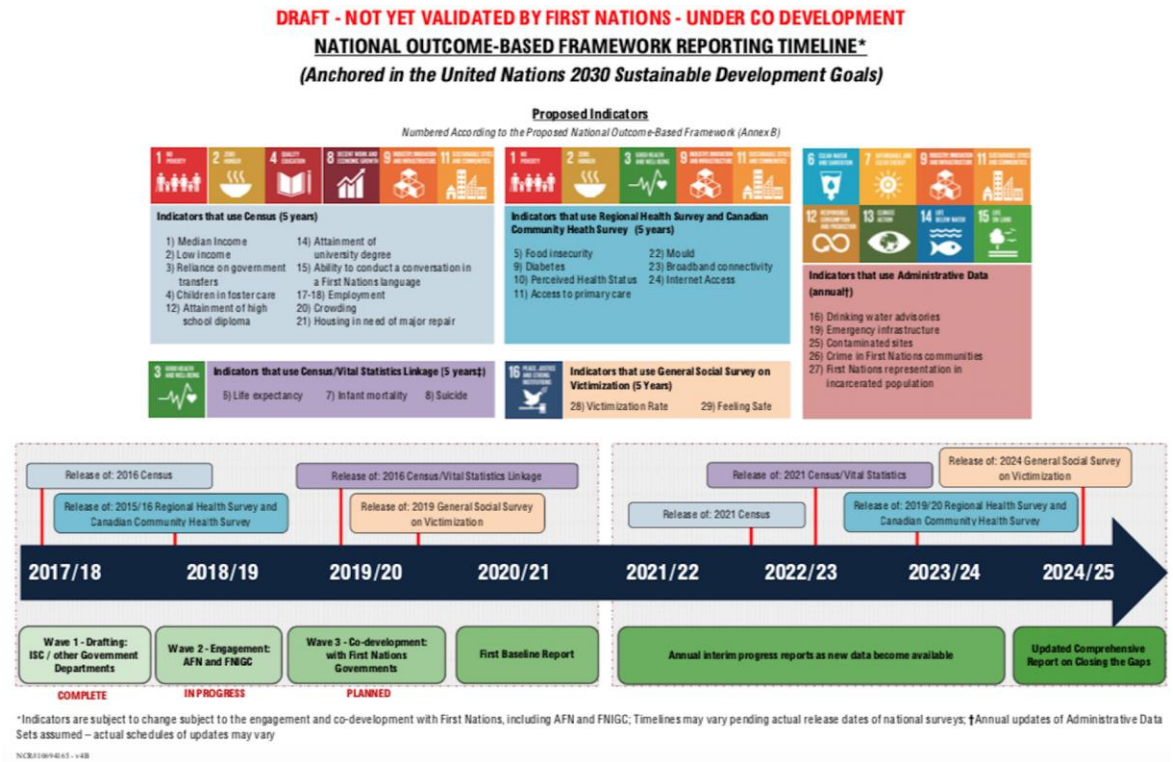
- “Co-management has come to mean institutional arrangements whereby governments and Aboriginal entities (and sometimes other parties) enter into formal agreements specifying their respective rights, powers and obligations with reference to the management and allocation of resources in a particular area of crown lands and waters.”

# Manitoba's Projections and cost analysis to close the gap

Clatworthy (2001; 2005)

- Population Figures
- The population figures used for the Manitoba case study came from two studies completed by Clatworthy (2001; 2005). These projections were based on the department of Indians and Northern Affairs' Status Verification system, and were developed to assess the long-term impact of Bill C-31.
- They take into consideration a number of key factors, including:
  - (a) trends in population size by location (on and off reserve), including migration;
  - (b) annual rates of population growth by locations (on and off reserve);
  - (c) annual additions to the population through Bill C-31 registrations;
  - (d) trends in the composition of the population by section 6 registry category and location (on and off reserve); and
  - (e) the rate of exogamous parenting, or parenting between someone who is (or is entitled to be) legally registered under the Indian Act and someone who is not entitled to be registered.
- Per capita costs were calculated over the whole relevant population, rather than just the people who used a particular program. This allowed us to add together expenditures on different programs to estimate total expenditure per person.

# New Fiscal Framework

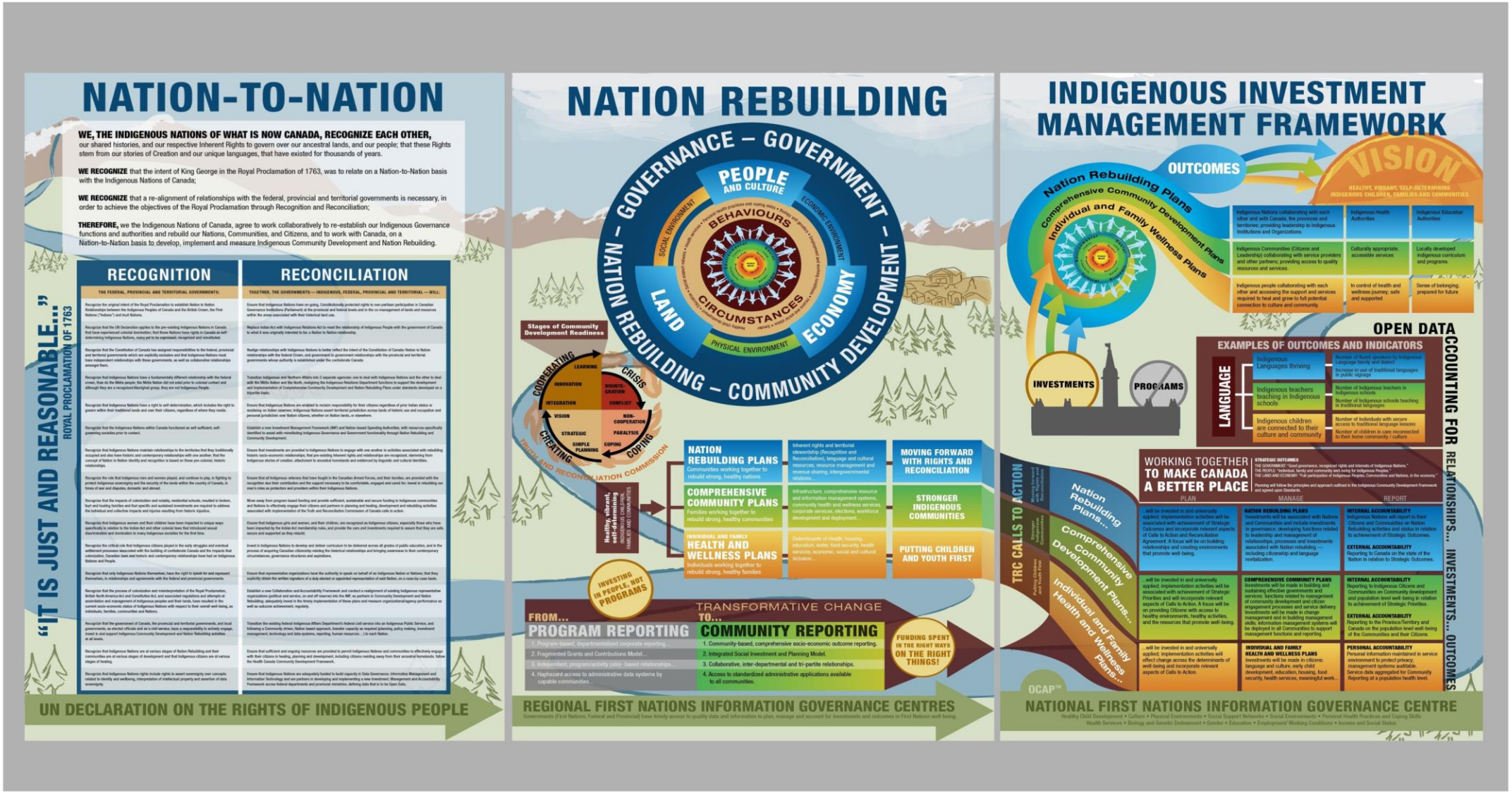



| Key Outcome Categories (UN SDG Based) | Results Expected | | Proposed Indicators | Data Sour Nati |
|---|---|---|---|---|
| Income, Welfare and Social Inclusion | First Nations have Comparable Incomes to Non-Indigenous Canadians | 1 | Median employment and investment income | Cen |
| | | 2 | Percentage of the population living in a low income situation | Cen |
| | | 3 | Percentage of people who rely on government transfers as their major source of income | Cen |
| | First Nations Children and Families Stay Together | 4 | Number and percentage of First Nation children in foster care | Cen |
| | First Nations Are Food Secure | 5 | Percentage of people living with moderate to severe food insecurity | Regional He |
| Health | First Nations Live Longer | 6 | Life expectancy rate (at birth) | StatsCan (Ce Statis |
| | First Nations Mortality Rates Decrease | 7 | Infant Mortality rate | StatsCan (Ce Statis |
| | | 8 | Suicide rate | StatsCan (Ce Statis |
| | First Nations Enjoy Comparable Health Conditions | 9 | Prevalence of Diabetes (adults and youth) as a proxy for chronic disease | Regional He |
| | | 10 | Perceived Health Status | Regional He |
| | First Nations have Comparable Access to Health Services | 11 | Percentage of First Nations with access to a primary care provider | Regional He |
| Education, Language and Culture | First Nations Attain a Good Quality Education | 12 | Percentage of young adults with a high school diploma | Cen |
| | | 13 | Percentage of working-age population with a high school diploma or higher education | Cen |
| | | 14 | Percentage of the population that has a university degree | Cen |
| | First Nations Rebuild their Languages | 15 | Percentage of people that are able to conduct a conversation in a First Nations language | Cen |
| Water | First Nations have Access to Safe Drinking Water | 16 | Number of First Nations communities with long-term drinking water advisories on public systems on-reserve | First Nations Da |
| Labour Force | First Nations have Comparable Access to the Labour Force | 17 | Unemployment rate | Cen |
| | | 18 | Employment rates of First Nations | Cen |
| Housing, Connectivity, and Fundamental Infrastructure | First Nations Communities have Quality Emergency Management Infrastructure | 19 | Percentage of First Nations communities that have the infrastructure to respond to emergencies (floods and fire safety) | First Nations Da |
| | First Nations Overcrowding in Housing is Eliminated | 20 | Percentage of people living in dwellings that contain no more than 1 person per room | Cen |
| | First Nations Live in Quality Housing | 21 | Percentage of people living in dwellings that are not in need of major repairs | Cen |
| | | 22 | Percentage of First Nations households with the presence of mould | Regional He |
| | First Nations are Connected to Broadband Internet | 23 | Percentage of First Nations communities with broadband connectivity | Regional He |
| | | 24 | Percentage of First Nations households that have internet access | Regional He |
| Land, Resources, and Environment | First Nations Live on Clean Land | 25 | Percentage of First Nations with a contaminated site on-reserve | Integrated En Manageme |
| Safety, Justice and Peace | First Nations Report Less Crime in their Communities | 26 | Rate of police-reported crime in First Nations communities | Uniform Crim (UC |
| | Reduce Overrepresentation of First Nations in Prison | 27 | Percentage of the incarcerated population who are First Nations | Adult Correcti Sur |
| | | 28 | Victimization rate | General So |

# Closing the Gap

- In Alberta Life Expectancy for:
  - Non-First Nations – same as Sweden, Singapore and Australia
  - First Nations – same as Cambodia, Guatemala and Paraguay

# Closing the Gap




Sacred Fire Community Wellness Profile Guide
Community Profile
2-3-5 Year Plan
This section may be linked to future aspirations of the youth, the elders and the leadership. This will support evaluation over time
Goals & aspirations
What we have, what we need
This section covers the assets and strengths of the community as well as what is needed
Resources & supports
Community & external services
This section covers the services within the community, utilization, & challenges, screening etc.
Health services & access
Health issues
This section covers all health issues the community wishes to profile
Health status
12 Health determinants
This section can cover the specific health determinants status: where strength exists and where work is needed
Health determinants
Welcome to the community
Land & environment
Services
Our People (Demographics)
Our Identity culture
LBill 23/10/17

# Cost Of Closing the Gap



## Life Expectancy between First Nations and Non-First Nations Albertans: Willingness to Pay

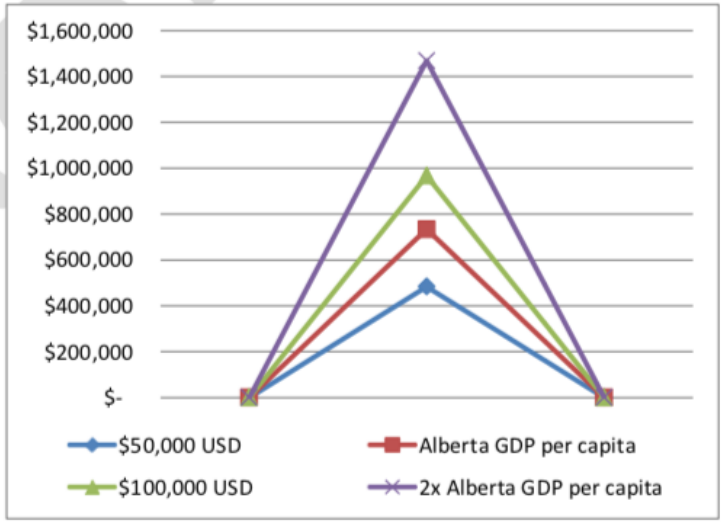
***The economic value of the gap in life expectancy between First Nations and non-First Nations Albertans***

Life expectancy (LE) at birth is the average number of years a newborn baby is expected to live if current death trends apply. It is determined by a number of factors that include genetic, social, and environmental conditions. A previous edition of *First Nations—Health Trends Alberta* presented LE from 1999 to 2015 for non-First Nations and First Nations in the province. Today, we present an economic valuation of the 10.9 year gap in LE between these groups in 2015.

A Quality Adjusted Life Year (QALY), is a population health indicator that combines quantity and quality of life. QALYs are calculated as the average number of additional years gained from an intervention, adjusted by a measure of quality of life for those years gained, so that one QALY measures a year of life in perfect health. As people age, they are less likely to have perfect health and therefore their quality of life declines. The Alberta Community Health Survey produces a measure of health utility by age group. The expected health utility of persons aged 71.4 to 82.3 (the span of the gap between First Nations and non-First Nations persons in Alberta) is 0.8032 (95% CI: 0.7776, 0.8288). Therefore, the 10.9 year age gap corresponds to an estimated loss of 8.7553 QALYs (95% CI: 8.4764, 9.0341).

### 8.75 QALYs lost

The ratio of costs to QALYs can be used to compare cost effectiveness of interventions, to determine if a technology or intervention is an efficient use of public resources. The benchmark for determining if an intervention is cost effective is known as the Willingness to Pay Threshold, (WTP), and is often defined as 50,000 USD/QALY to be highly cost effective and 100,000 USD/QALY to be acceptable.[1] Alternatively, it has been suggested that two or three times a jurisdictions' gross domestic product per capita ($83,842 for Alberta in 2014[2]) per QALY is another good WPT.[3]

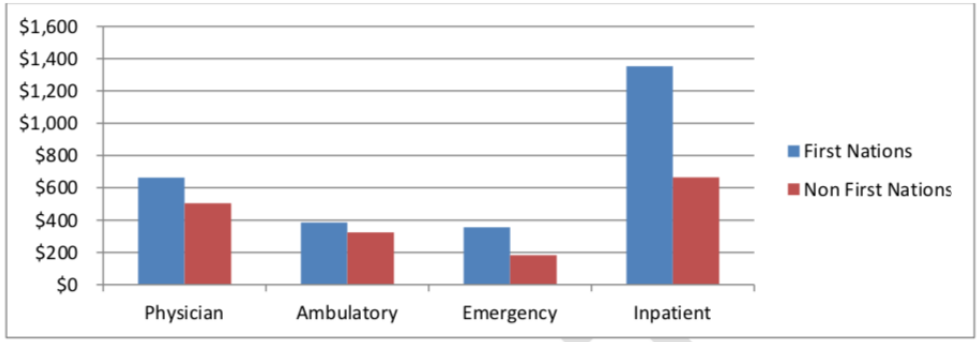



[1] http://www.nejm.org/doi/full/10.1056/NEJMp1405158#t=article
[2] CANSIM tables 051-0001 and 384-0038.
[3] http://www.who.int/bulletin/volumes/93/2/14-138206/en/



**Email: Health.Surveillance@gov.ab.ca**
www.ahw.gov.ab.ca/IHDA_Retrieval/

## 2. Average Annual Costs by Type and First Nations Status, 2005-2014



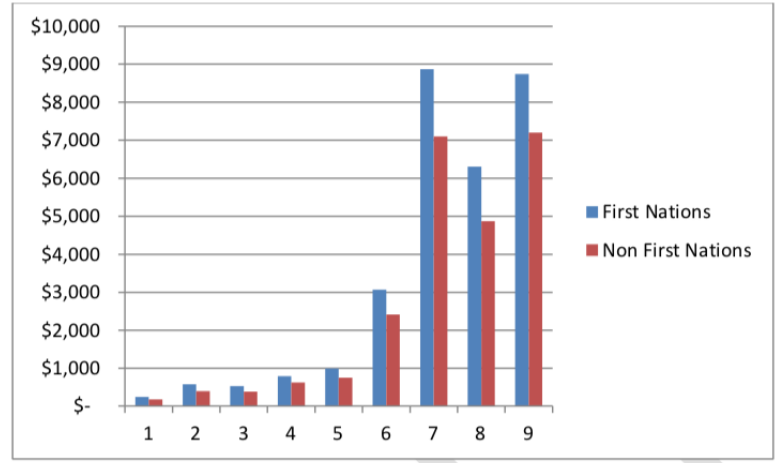

- First Nations persons were matched to controls from the rest of the population based on the following criteria:
  - Controls were matched on gender, five-year age group, and geographic type (urban, rural, moderate metro, etc.)
  - Ranking of controls was randomized so that each time the algorithm is run, the controls will be matched and retained in a different order
  - No control can be matched to any First Nations person more than once, so that each control will only appear once in the control cohort

- Annual costs are determined as follows:
  - Physician costs are accessed via physician claims data and summed at the individual level.
  - Case costing is conducted for approximately 25% of ambulatory and emergency events, and 60% of inpatient events. Because of this, groupers (ACCS, CACS and CMG) are used to estimate costs. The cost of inpatient stays which may span more than one calendar year and pro-rated at a fixed per diem rate.
  - Costs have been averaged converted to 2014 dollars using the medical component of the Alberta Consumer Price Index.
  - Costs have been averaged across individuals.
  - These costs do not include Alberta Blue Cross Payments or other health programs not listed.

- Controlling for age, gender and location, First Nations persons cost on average a total of approximately $1,080 (64 per cent) more than matched controls.

- The largest discrepancy is seen in Emergency and Inpatient costs, where First Nations persons cost 94 and 103 per cent more, respectively.

## 3. Average Cost by Clinical Risk Grouper and First Nations Status, 2010-2013

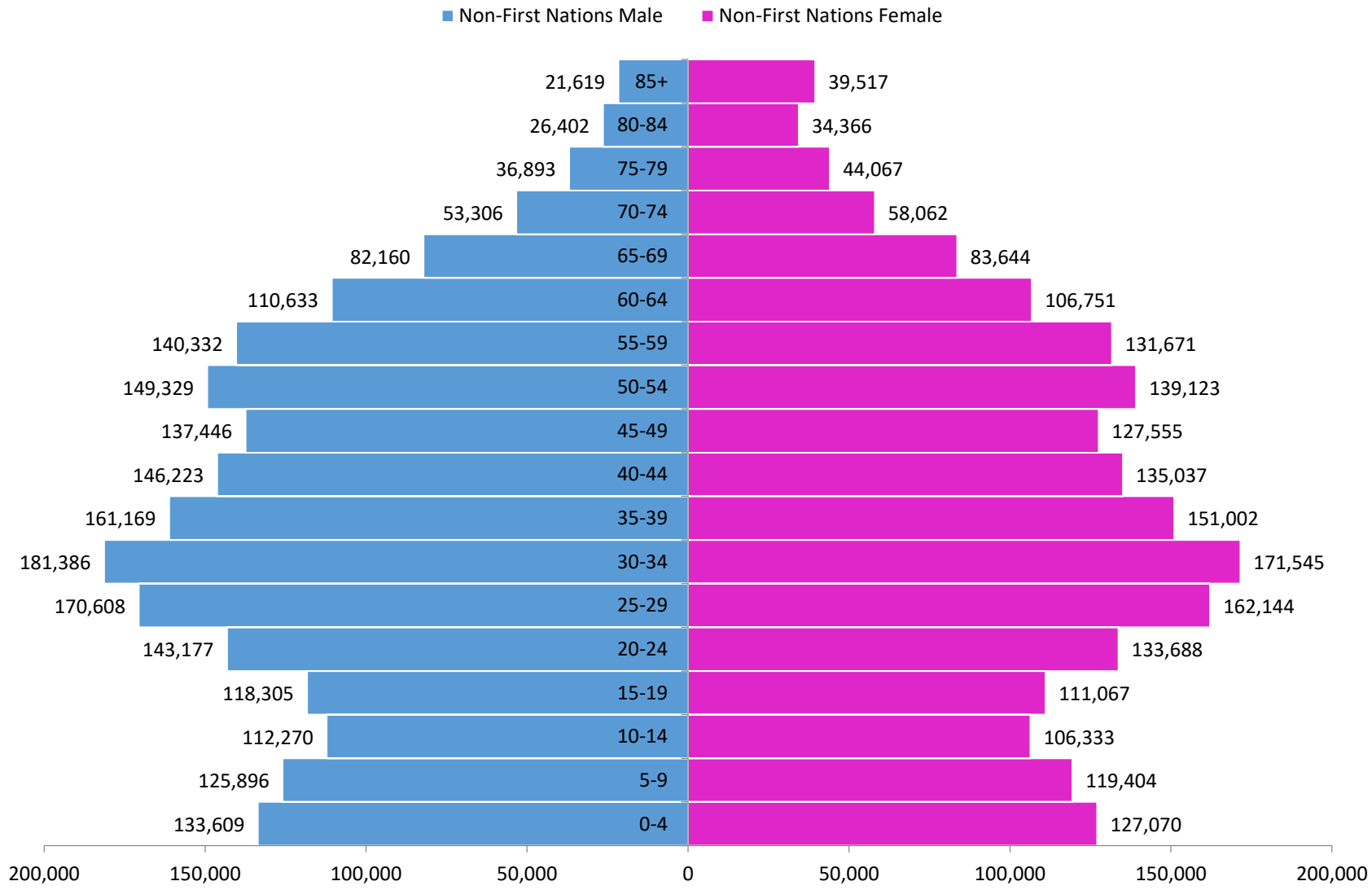



- The CRG is a hierarchical system which uses administrative health data to classify individuals into mutually exclusive health state and utilization groups. The CRG grouping determined by records from 2010 – 2013 was used in this analysis.

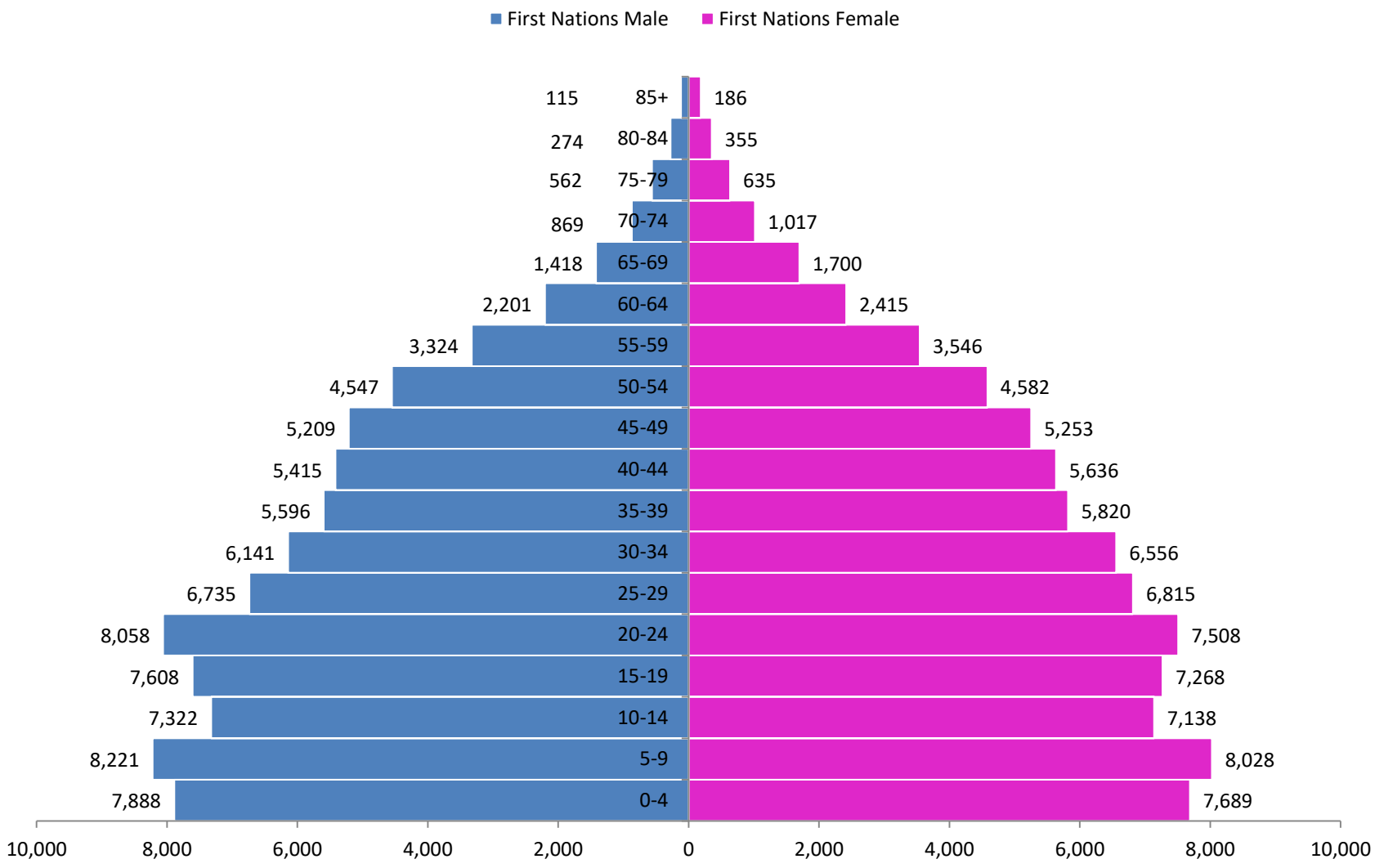
- The highest CRG aggregation is used here, where:
  - 1 - Healthy
  - 2 - Significant Acute
  - 3 - Single Minor Chronic
  - 4 - Multiple Minor Chronic
  - 5 - Single Chronic
  - 6 - Significant Chronic, Multiple
  - 7 - Dominant Chronic, Three or More
  - 8 - Malignancies
  - 9 - Catastrophic

- The cost difference between First Nations and Non-First Nations persons increases as CRG severity increases. However, the relative ratio of costs between the two decrease slowly, from an average of 40 per cent for the first three CRGs to an average of 25 per cent for the highest three CRGs.

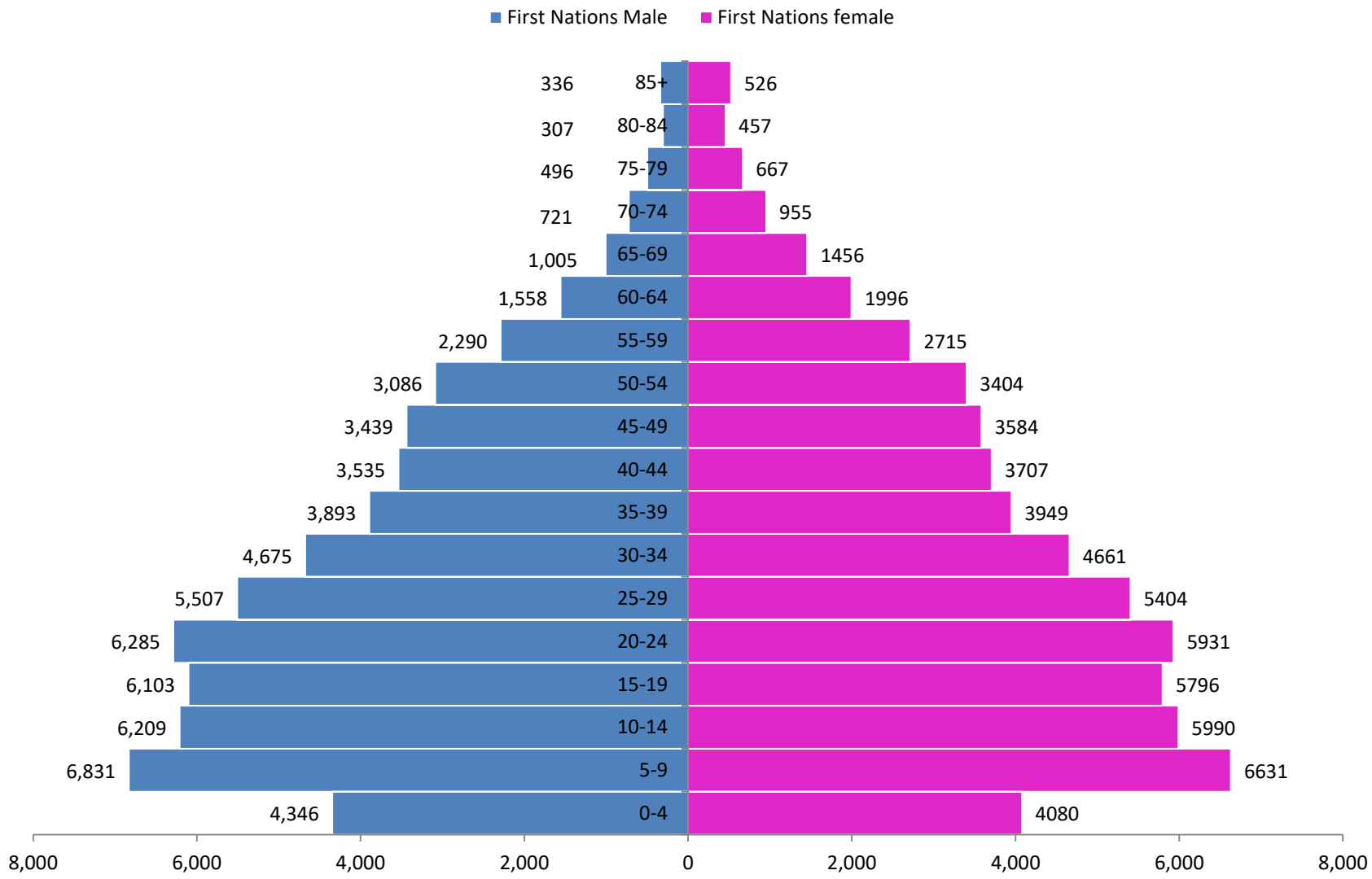
Source: Alberta Health Interactive Health Data Application (Retrieved May 11, 2016)



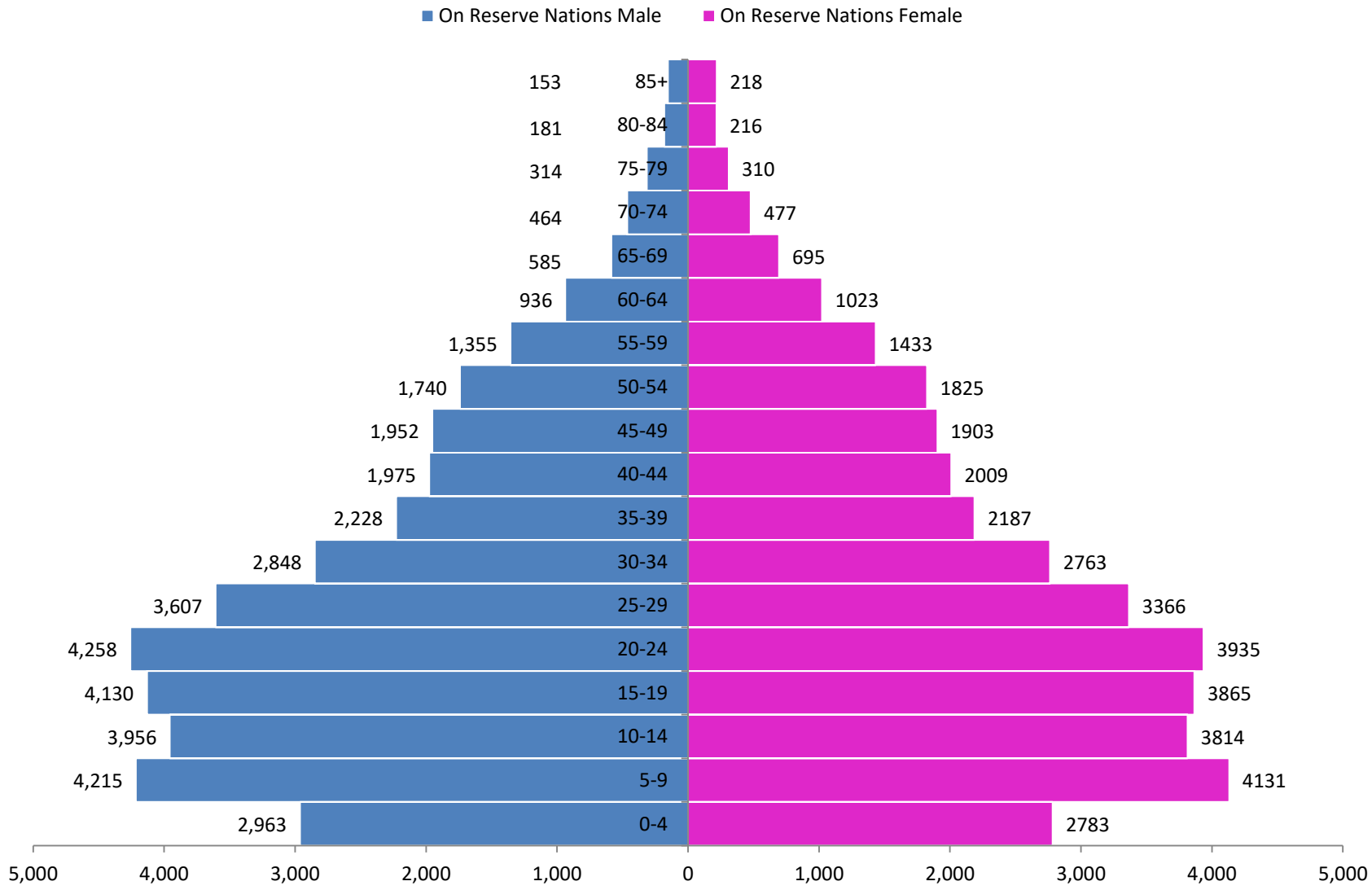
Source: Alberta Health Interactive Health Data Application (Retrieved May 11, 2016)



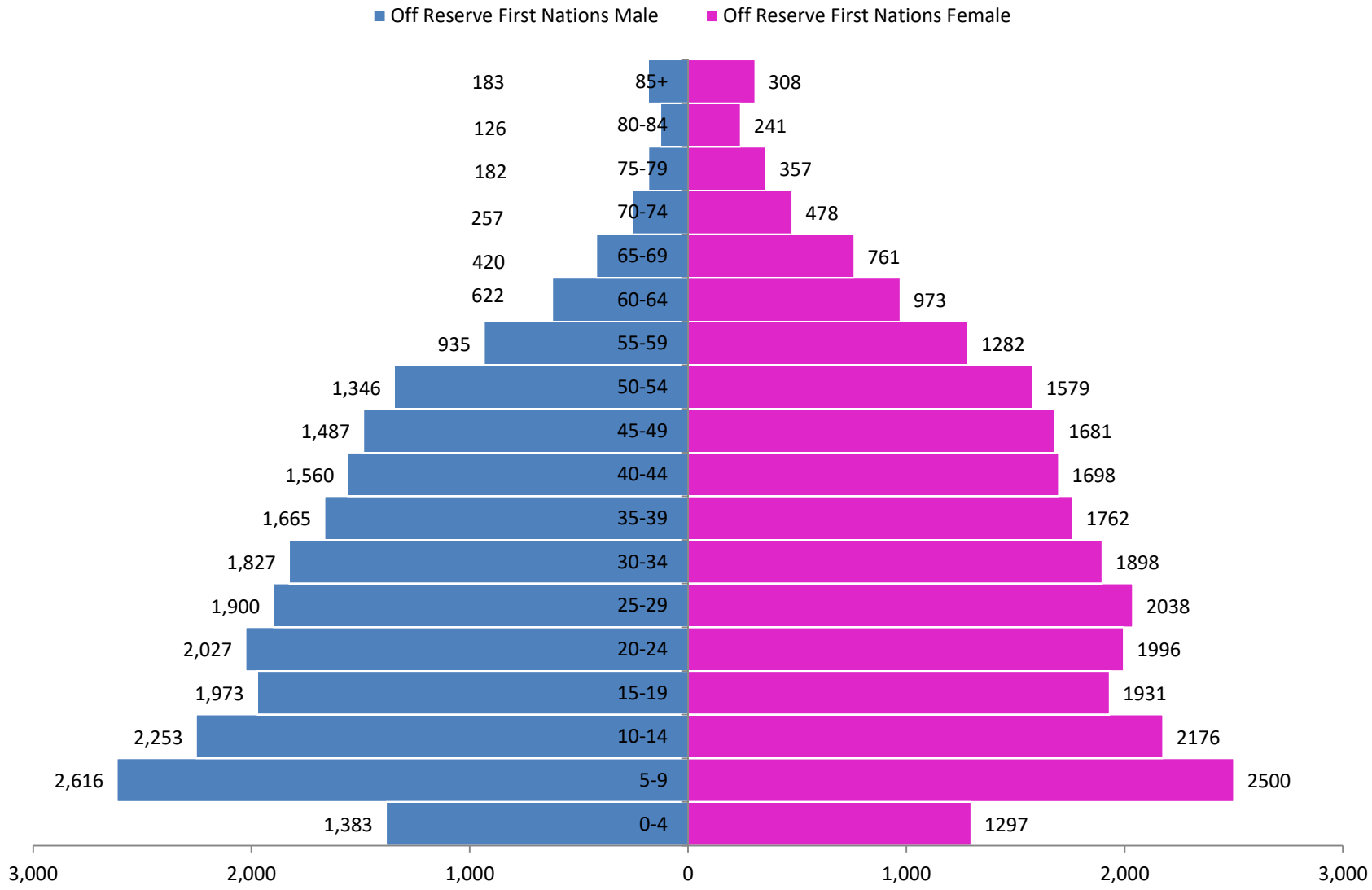
Source: INAC Indian Registry System



Source: INAC Indian Registry System



Source: INAC Indian Registry System




"Inequity is the presence of systematic and potentially remediable differences among population groups defined socially, economically, or geographically"

"Horizontal inequity indicates that people with the same needs do not have access to the same resources. Vertical inequity exists when people with greater needs are not provided with greater resources."

Starfield International Journal for Equity in Health 2011, 10:15
http://www.equityhealthj.com/content/10/1/15

# Indigenous Health Service Inequity

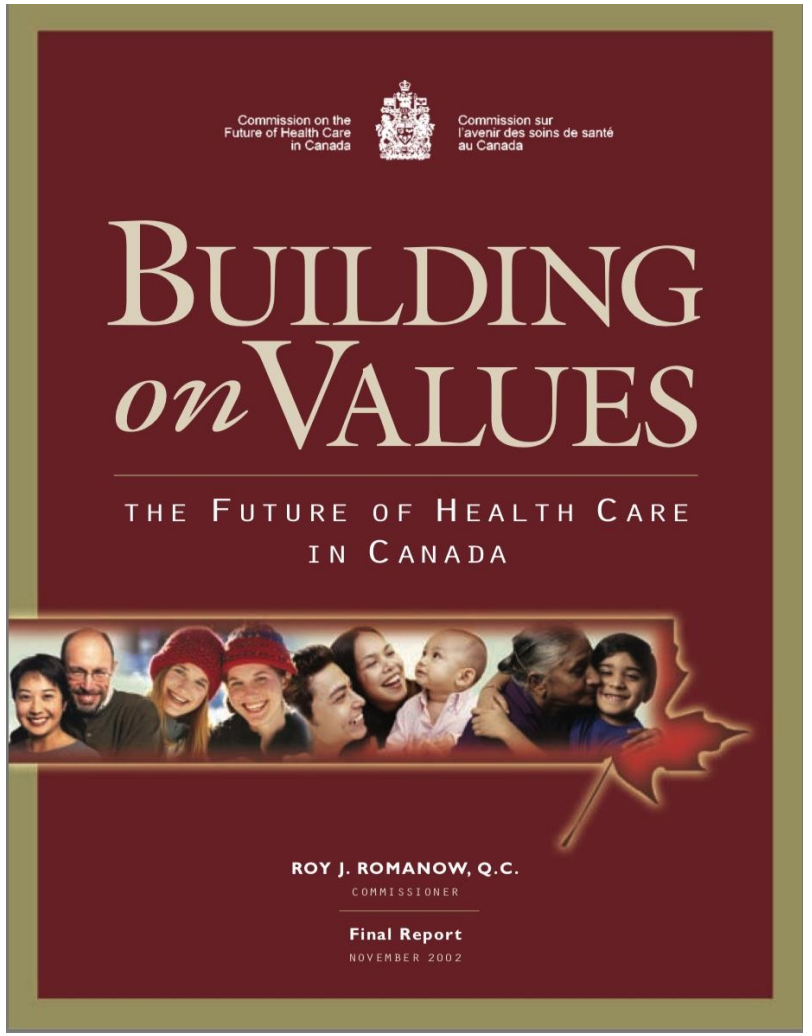
Causes:

- a general mismanagement of funding
- a poorly established system to provide care

Recommendations:

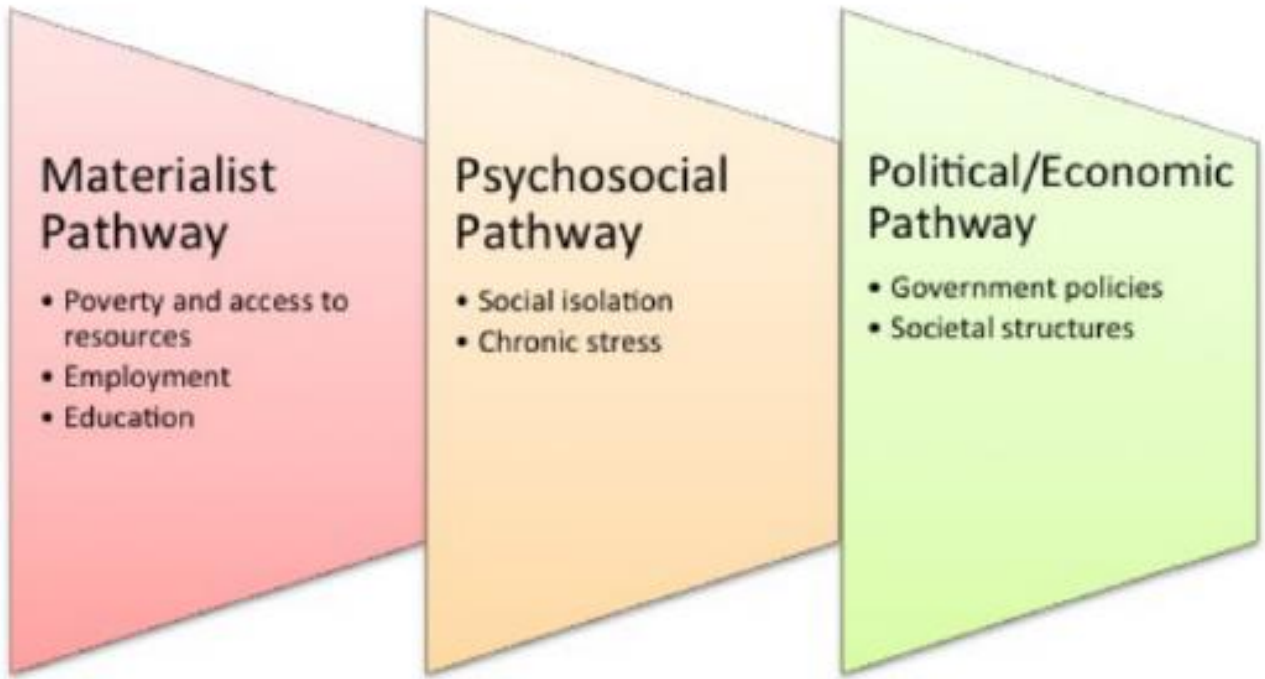
- restructure Indigenous health care
- all levels of government must come together to address health inequities

Romanow Report 2002



# Pathways Linking Chronic Disease and Inequity

Pathways that lead from inequity to chronic disease are multiple and interdependent.



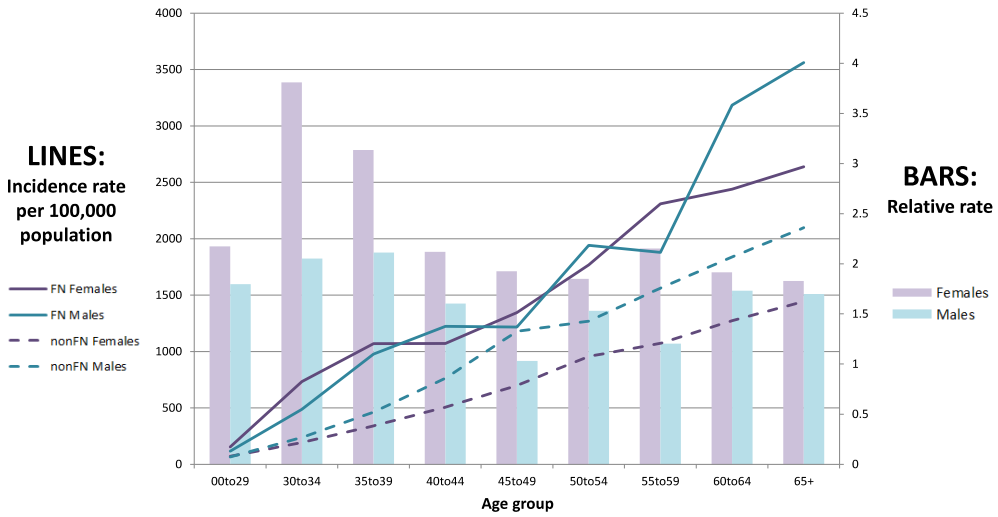

Source: Public Health Agency of Canada (2010). The Tides of Change: Addressing Inequity and Chronic Disease in Atlantic Canada: A Discussion Paper.

# Diabetes Incidence among First Nations in Alberta

***Diabetes Incidence and Relative Rates by age group, First Nations status, and sex, 2015***

Given a strong interest in diabetes information among First Nations communities in Alberta, this is the third in a series of *First Nations – Health Trends Alberta*[1] dedicated to diabetes-related topics. In previous editions, we provided data on diabetes prevalence and lower-leg amputations among diabetics. Here, the age-specific incidence rates of diabetes in 2015 are presented by sex for First Nations and non-First Nations in Alberta separately. Incidence is the number of new cases of disease diagnosed in a population. We also provide age-specific relative rates that compare the difference in rates between First Nations and non-First Nations by age group and sex.

In Alberta in 2015, there were approximately 23,320 people diagnosed with diabetes (1,000 First Nations and 22,320 non-First Nations). The age-standardized diabetes incidence rate among First Nations (1257.6 per 100,000 population) was 1.8 times higher than among non-First Nations (714.7 per 100,000).




## Diabetes incidence rises with age for everyone; however, the biggest differences in rates between First Nations and non-First Nations are among younger populations.

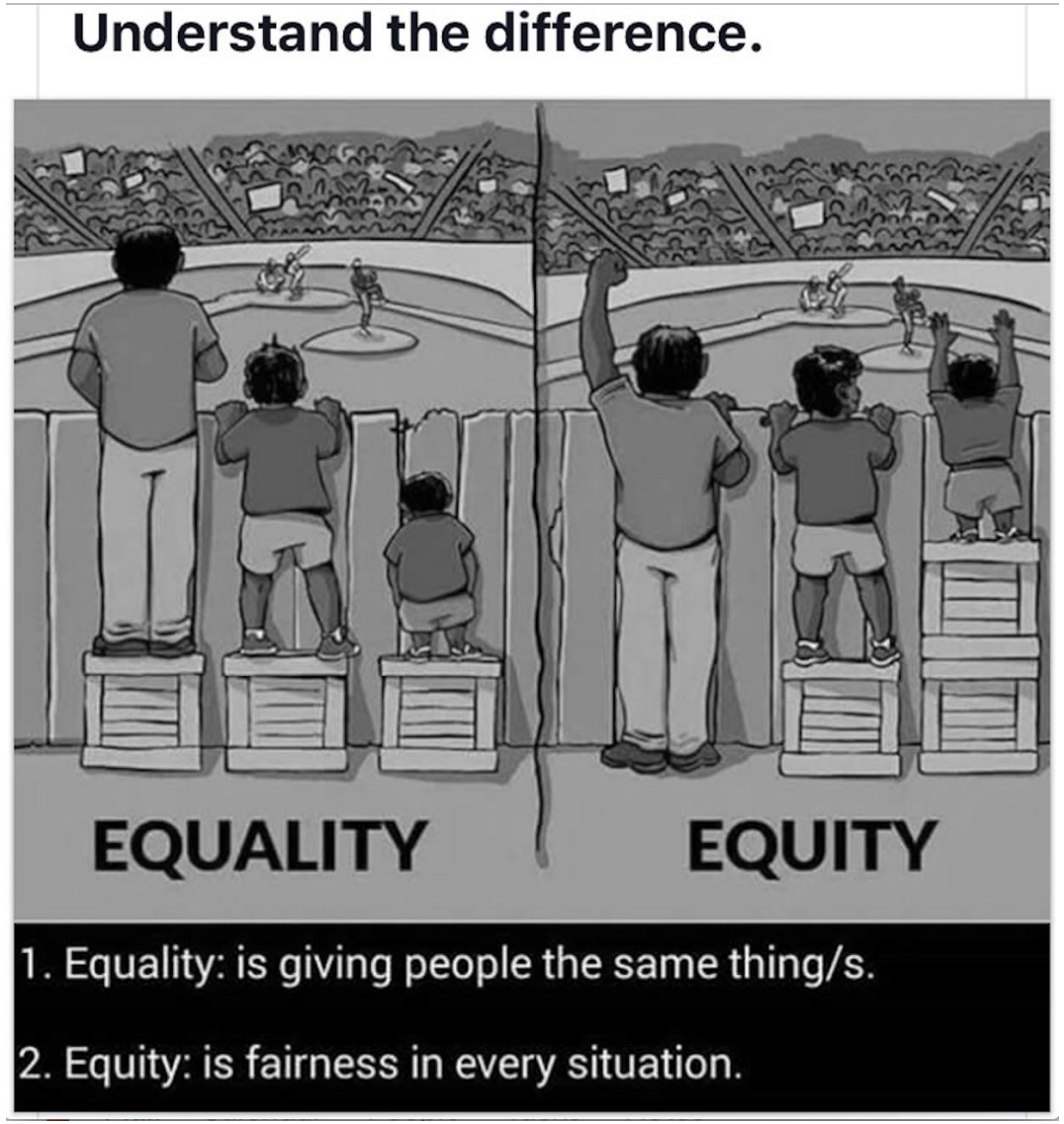
Age-specific diabetes incidence rates rose with age in both populations. However, the differences between First Nations and non-First Nations age-specific rates were highest among younger populations, especially young females. The incidence rate of diabetes among 30 to 34 year old First Nations females was 3.8 times higher than the rate among their non-First Nations counterparts (3.1 times higher for 35 to 39 year olds).

An earlier onset of diabetes may increase the risk of developing long-term complications such as renal disease (disease of the kidneys), diseases of the retina (tissue at the back of the eye), and cardiovascular problems such as myocardial infarction (heart attacks).[2]

[1] This is the 15th in a series of First Nations-specific Health Trends compiled in collaboration by Alberta Health and the Alberta First Nations Information Governance Centre (AFNIGC). To suggest future topics, please contact the AFNIGC (communications@afnigc.ca; 403-539-5775).
[2] Wilmot and Idris (2014), doi: 10.1177/2040622314548679


**Email: Health.Surveillance@gov.ab.ca**
www.ahw.gov.ab.ca/IHDA_Retrieval/

# Equality vs Equity



# Health Equity Framework – Māori Uphold Treaty Right to Health

MINISTRY OF HEALTH
MANATŪ HAUORA

## Equity of Health Care for Māori: A framework

| | Leadership<br>Championing the provision of high-quality health care that delivers equity of health outcomes for Māori | Knowledge<br>Developing knowledge about ways to effectively deliver and monitor high-quality health care for Māori | Commitment<br>Being committed to providing high-quality health care that meets the health care needs and aspirations of Māori |
|---|---|---|---|
| **Health System** | **Health system leadership is about setting an expectation that all New Zealanders will have equity of health outcomes.**<br>In order to achieve equity of health outcomes, disparities in health care must be eliminated. Government legislative and strategic approaches are important in setting the scene for committing to the elimination of health disparities and achieving health equity.<br>Health system leadership is expressed in: health policies and strategies; setting the expectation that equity is an integral component of quality; setting health targets; developing funding formulas for service procurement; and building and maintaining a health workforce that is responsive to the health care needs and aspirations of Māori.<br>Services must be organised around the needs of individuals and whānau. To achieve this, Government must focus on removing infrastructural, financial, physical and other barriers to delivering high-quality health care for Māori that exist between health and other sectors. | **The health system requires knowledge to monitor progress in achieving health equity for Māori.**<br>Knowledge encompasses high-quality health information that includes: research – quantitative and qualitative and/or informed by Māori methodologies; high-quality population health data with complete and consistent ethnicity data; cultural competency and health literacy; Māori models of health and wellbeing; clinical care pathways, guidelines and tools; and health innovation.<br>Knowledge of what improves health equity for Māori should be developed and built upon to inform health policy and strategy. The use of high-quality health information, and the use of equity parameters to measure and monitor progress toward achieving health equity, is integral to this process.<br>Further to this, the health system performance improvement and monitoring frameworks should include specific health equity measures. | **The health system is committed to reconfiguring services to deliver high-quality health care that meets the health care needs and aspirations of Māori.**<br>Health system commitment is expressed in: incentivising and rewarding the delivery of equitable health outcomes for Māori; requiring performance data to be analysed by ethnicity, deprivation, age, gender, disability and location; measuring and monitoring progress toward achieving health equity for Māori; developing frameworks that focus on protecting the health rights of Māori; and investing in the development of organisational health equity expertise.<br>Health system commitment requires regulatory authorities to ensure that all vocational training and continuing professional development activities have a robust health equity, cultural competency and health literacy focus. |
| **Health Organisations** | **Health organisation leadership is about making an explicit organisational commitment to delivering high-quality health care that ensures health equity for Māori.**<br>Organisational leadership is expressed in well aligned policies, strategies and plans that are responsive to the health care needs and aspirations of Māori.<br>The organisation sets and monitors equity and other quality improvement targets; ensures that structural arrangements do not prevent individuals and their whānau accessing health services and actively invests in building and maintaining Māori health workforce capacity and capability.<br>The organisation actively partners with providers beyond the health sector to allow for better service integration, planning and support for Māori. | **Health organisations must establish environments that encourage learning and the sharing of high-quality health information.**<br>To inform decision-making, health organisations should focus on developing and building their knowledge of evidence-based initiatives that have:<br>1. undergone equity analyses before they are implemented<br>2. been monitored for their effectiveness in achieving health equity for Māori.<br>Health organisations should also endorse the use of health equity and quality improvement tools that support the delivery of high-quality health care that is responsive to the needs and aspirations of Māori. | **Health organisations are committed to reconfiguring services to deliver high-quality health care that meets the health care needs and aspirations of Māori.**<br>Health organisations are committed to building relationships with Māori to collaboratively design, implement and evaluate initiatives that ensure delivery of high-quality health care that meets their needs and aspirations.<br>Investment in initiatives that are successful in achieving health equity for Māori should be matched by divesting from initiatives that are unable to progress this goal. To make good decisions on which initiatives to support, health organisations must use high-quality health information, for example, complete and consistent ethnicity datasets, to monitor services against agreed indicators.<br>Health organisations are also committed to supporting community initiatives that meet the health needs and aspirations of Māori. |
| **Health Practitioners** | **Health practitioner leadership is pivotal in ensuring that health care is focused on achieving health equity for Māori.**<br>Leadership requires health practitioners to: review their own clinical practice and those of their peers, through a health equity and quality lens; ensure that their organisation collects high-quality ethnicity data; audit, monitor and evaluate health impact and outcome data to improve the delivery of high-quality health care for Māori; and provide critical analysis of those organisational practices that maintain disparities in health care.<br>Leadership involves active partnership with providers beyond the health sector to allow for better service integration, planning and support for Māori individuals and whānau. | **Health practitioners strengthen their capacity and capability to deliver high-quality health care for Māori by learning and sharing high-quality health information.**<br>Routine use of clinical guidelines and tools is important in high-quality health care decision-making, as is building knowledge in the use of quality health equity improvement tools.<br>Health practitioners should develop their skills in routinely examining data collected by their organisations to monitor the impact of their own work and the work of their colleagues on achieving health equity for Māori.<br>Health practitioners must build their own knowledge of how they can provide health information effectively to ensure Māori individuals and whānau understand them. | **Health practitioners must be committed to continuous quality improvement processes that focus on achieving health equity.**<br>Health practitioners express their commitment by: routinely using and analysing administrative data to inform their practice; using evidence-based innovations that achieve health equity for Māori; and tailoring continuing professional development to build their capacity/capability in delivering equitable health care.<br>Health practitioners should also understand their role in supporting Māori individuals and whānau to develop their health literacy.<br>Health practitioners are committed to supporting community initiatives that meet the health needs and aspirations of Māori individuals and whānau. |

# Indigenous Indicators

TABLE 6: BIOCULTURAL BASED INDIGENOUS HEALTH INDICATORS

| WHOLISTIC HEALTH | OBJ-1 (LANGUAGE) | OBJ-2 (CULTURE) | OBJ-3 (ENVIRONMENT) |
|---|---|---|---|
| WHOLISTIC HEALTH - LIVING IN BALANCE AND ONENESS WITH THE ENVIRONMENT | A Healthy community is when everyone speaks the language | - Positive community interactions / lack of interaction; identifying barriers to participation | 'Environment is life'. First Nations health is adversely impacted when there is a lack of connection to the environment. |
| Sample (metric, indicator, system performance measurement) | # of speakers; ratio of speakers to total population; increase or decrease in speakers over time | # of identified barriers; rate of participation with and without barrier; increase or decrease in participation | # community members who feel connected to environment; increase in connection vs decrease, or lack of connection |
| BALANCE - POSITIVE LIVING INCORPORATING PHYSICAL, SPIRITUAL, MENTAL & EMOTIONAL ASPECTS OF MEDICINE WHEEL | Language is spiritual and wholistic and a gift from Creator. Spiritual element of language is enhanced when utilized. (Current emphasis on English language out of balance more focus on mental) | Gender relationships are out of balance; need to re-empower the roles and responsibilities of men and women, children, elders, leaders | Living in balance with environment & utilizing resource is an indicator of wholistic health |
| Sample (metric, indicator, system performance measurement) | Number/type of Places (school, home, church, ceremony) where language is used; rate of First Nation language use to English (at school, home, church, ceremony); increase vs decrease in language utilization | # of men/women/children/elders in FN community; ratio of available programs and participation rates; increase/decrease in single parent homes | resource inventory; ratio of land use to resource availability; increase or decrease in land use and/or resource availability |
| COLLECTIVENESS - EVERYONE WORKING TOGETHER TO HELP ONE ANOTHER | COMMUNICATION - to have open conversations in our language and Share knowledge and wisdom | CEREMONIES - participation by everyone especially our young people (eg. Naming ceremony for youth) | COMMUNITY EVENTS - picking medicines helping each other to learn when and where to pick |
| Sample (metric, indicator, system performance measurement) | # of available programs aimed at youth participating in conversations with knowledge and wisdom keepers; participation rates | # youth present, # male/female, # youth getting a name, # with a name, etc.; participation rates; increase or decrease over time | # knowledge keepers sharing, # participants, location (sacred site/ harvest site), # of events |
| KNOWLEDGE TRANSLATION/ TRANSFERENCE - PASSING DOWN KNOWLEDGE FROM GENERATION TO GENERATION | COMMUNICATION - Enhance Knowledge and teach young people about our medicines | Turning to our Elders Passing down knowledge from generation to generation. | COMMUNITY EVENTS - picking medicines helping each other to learn when and where to pick |
| Sample (metric, indicator, system performance measurement) | # of speakers; # of youth participating in conversations with knowledge and wisdom keepers | # of Elders who have transferred knowledge; # of elders participating in conversations with youth | # knowledge keepers sharing, # participants, location (sacred site/ harvest site), # of events |
| CONNECTIVITY - RECIPROCAL RELATIONSHIPS | Language connects individuals and community. Humorous element of language connects people and releases endorphins. Technology can be utilized to promote healthy relationships such as on-line dictionaries and Apps. | Community events connect people and enhance nationhood. Sharing among community members promotes love for each other. Grief is natural along with celebrations of life. | Healthy relationship with power & technology. Modern technology destroyed some of the medicines on the landscape (terrains); need to reconnect with land and restore reciprocal relations. |
| Sample (metric, indicator, system performance measurement) | # on dictionaries; # of students utilizing technology; increase or decrease in language speakers who utilize on-line resources | # of people grieving the loss of someone to opioids crisis; supports and resources available; # of community members utilizing resources | # of sites for harvesting; GPS locations and attribute information; protection of sites; improve/not improve overtime |
| LANGUAGE -Language makes each culture different; (diversity). All nations are equal "teaching from older elders". "Take language away and First Nations culture are the same". | Every sound in our language has essence and is supernatural - provide opportunities for everyone to learn about origins of language; use of sign language | Laughter provides a strong sense of community. Humour is an indicator of physical well-being. | Humorous element of language follows natural laws. Use of language promotes cultural connections to natural elements of earth |
| Sample (metric, indicator, system performance measurement) | # of people who can use traditional sign language; # of speakers compared to # of sp eakers who can sign; # of programs available to learn about origins of language | # of speakers; # of Community events that present opportunities for laughter and incorporate language; increase/decrease in # of speakers over time | # of sites available to connect with; # of community members visiting sites; increase/decrease overtime. |

| WHOLISTIC HEALTH | OBJ-1 (LANGUAGE) | OBJ-2 (CULTURE) | OBJ-3 (ENVIRONMENT) |
|---|---|---|---|
| CHILDREN & FAMILIES - SUPPORTS FOR FAMILIES INCLUDING SUPPORTS FOR BREAKDOWNS: Traditional teachings are important for parents. Children are raised in a balanced way. | Provide opportunities for children to learn our culture and spirituality. "Parents adhered to what the Creator administered" is a literal translation of the origin of "children" in the Cree language. | Supports are available for children and families to minimize & mitigate family breakdowns; resources are available for social workers and teachers, students along with every individual in community, have access to material and resource personnel (elders, etc.) | Community members, especially children, have access to teachings and knowledge in the community and resources available to facilitate |
| Sample (metric, indicator, system performance measurement) | # Language lessons to provide parents with cultural understandings. | # families who are given teachings, # of community members accessing support (effectiveness of programs) | # resources available and being utilized; |
| GOVERNANCE - INCLUDING SELF-DETERMINATION IN HEALTH CARE | - Dependence on Chief and Council is an indicator of a lack of health | - Women<br>- Elderly/Disabled | - dependency on prescription medication is an indicator of sickness |
| Sample (metric, indicator, system performance measurement) | # of community members dependent on government payments compared to # of individuals who speak language (correlations) | # of women in leadership; # of elders who participate with Chief and Council; # of disabled individuals serving on leadership positions; # of specialists who serve in leadership positions; increase/ decrease overtime | # of individuals who are seeking treatment; # available spaces/ waiting lists at treatment facilities; # of language programs at existing treatment facilities; increase/ decrease in use/availability over time |
| CULTURAL IDENTITY - Pride in culture corresponds with health and well-being of physical, spiritual, mental and emotional aspects | COMMUNICATION - Teach parents and children about importance of names | Culturally appropriate approaches that incorporate best available therapies to help individuals, groups and communities heal from Emotional traumas (grief, forgiveness, addictions) | TRADITIONAL NAMES - often refer to elements in nature; |
| Sample (metric, indicator, system performance measurement) | # of language resources available (elder; on-line, hard copy) that teach about traditional names. Trends over time | # of individuals who identify as experiencing emotional trauma; # of culturally appropriate programs to incorporate therapies that aren't based on prescription medication | #of youth who have a traditional name; #of individuals who can pronounce their name; #of individuals who's name includes environmental reference; increase/ decrease in connectivity over time |
| ENVIRONMENT - RELATIONSHIP TO AND RESPONSIBILITY FOR EARTH IS IMPORTANT. | terms used in language to identify sacred species & sacred sites. Our land is our school, where we learn. Imperative that we bring back our origin stories, and learning from land | Culture teaches how to live within the natural laws. Earth is source of life and we work hard for our survival. | Environment includes tangible and intangible elements of the earth including feelings & energies surrounding people. Language dialect plays a role in identifying nation borders (rather than INAC borders). |
| Sample (metric, indicator, system performance measurement) | # of language resources available (elder; on-line, hard copy) that teach about Sacred species and sites. Trends over time | Culture and Bush Camps; # of participants; increase/decrease in knowledge overtime | REGIONAL: # of dialects and overlapping knowledge; integration to broader non-Indigenous community... |
| TREATIES - SELF SUFFICIENCY & FOOD SOVEREIGNTY | Medicines come from the land and language is embedded in the earth. Knowing the terms for each plant. | Knowing and understanding medicinal uses of plants for everyday natural remedies (eg. Headache) | Cultural teachings about medicinal plants in the language also describe landscapes (terrains) where they can be found. |
| Sample (metric, indicator, system performance measurement) | # of language resources available (elder; on-line, hard copy) that teach about land including terms for plants. | # of knowledge keepers willing to share knowledge; access rates for individuals who would like to learn; increase/decrease in knowledge overtime | # of site visits to learn about land; # of programs that teach about land; increase/decrease in site visits overtime |

# Elders Declaration: Background

Presented, ratified, and validated at the Treaties 6, 7, and 8 Mental Health and Addictions Advisory meeting held in Morley, AB from September 22 – 23, 2016.

Elders from Treaty 6, 7, and 8 gathered in an advisory group to reflect on the effects of historical trauma and a path toward holistic healing.

Elders utilized cultural processes in their own languages alongside one another to discuss key concepts, validating the final document with a pipe ceremony.

# Elders Declaration

Recognition of a common sense of history that connects diverse First Nations communities

Building bridges through stories, songs, oral traditions, natural law, lived experiences, inherited knowledge, and wisdom of each community.

*“Our hearts and spirits rest on our kinship with one another and with all beings of the earth, the universe, and the cosmos.*

*We are connected to and responsible for those who are here, those who are yet to come, and those who have been. We are connected with our Creator.*

*Our authority flows from these sources. They set the nature, direction, and pace of action.”*

“[A] modern industrial health care system can be a determinant of *ill* health, especially where it is culturally unsafe. At present, Canadian health care for Indigenous people is not culturally safe owing to the ways that health law, health policy and health practice continue to erode Indigenous cultural identities.”


R. Matthews CMAJ 2017 January 16;189:E78-9. doi: 10.1503/cmaj.160167

Truth and Reconciliation Commission of Canada

- Established by Indian Residential Schools Settlement Agreement to settle class action lawsuit
- For 6 years, 3 commissioners travelled Canada listening to Indigenous people taken from their families as children and placed in residential schools
- 6,000 witnesses, most survivors of the schools
- Published 527 page report in June 2015 with 94 calls to action and 7 related to health

*"Getting to the truth was hard, but getting to reconciliation will be harder… Reconciliation requires that a new vision, based on a commitment to mutual respect, be developed… Reconciliation is not an Aboriginal problem; it is a Canadian one. Virtually all aspects of Canadian society may need to be reconsidered."*

(**TRC Executive Summary Report**: http://www.myrobust.com/websites/trcinstitution/File/Reports/Executive_Summary_English_Web.pdf)

Truth and Reconciliation Commission of Canada

*Reconciliation must support Aboriginal peoples as they heal from the destructive legacies of colonization that have wreaked such havoc in their lives. But it must do even more. Reconciliation must inspire Aboriginal and non-Aboriginal peoples to transform Canadian society so that our children and grandchildren can live together in dignity, peace, and prosperity on these lands we now share.*

*Honouring the Truth, Reconciling for the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada*

Protecting Our Knowledge,
Telling Our Stories,
Strengthening Our Communities.

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