



First Nations Health Authority  
Health through wellness

# First Nations Data as a Support for Primary Care Innovation

**Laurel Lemchuk-Favel**

Director, Health Economics and Analytics

*First Nations Health Authority, British Columbia*

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## Acknowledgements

### **Harmony Johnson**

Vice President, Policy, Planning, and Quality, FNHA

### **Paul Drosinis**

Senior Data Analyst, Policy, Planning, and Quality, FNHA

### **Anar Dhalla**

Data Analyst, Policy, Planning, and Quality, FNHA

*I acknowledge that we are gathering today on unceded  
Algonquin, Anishinabek territory.*



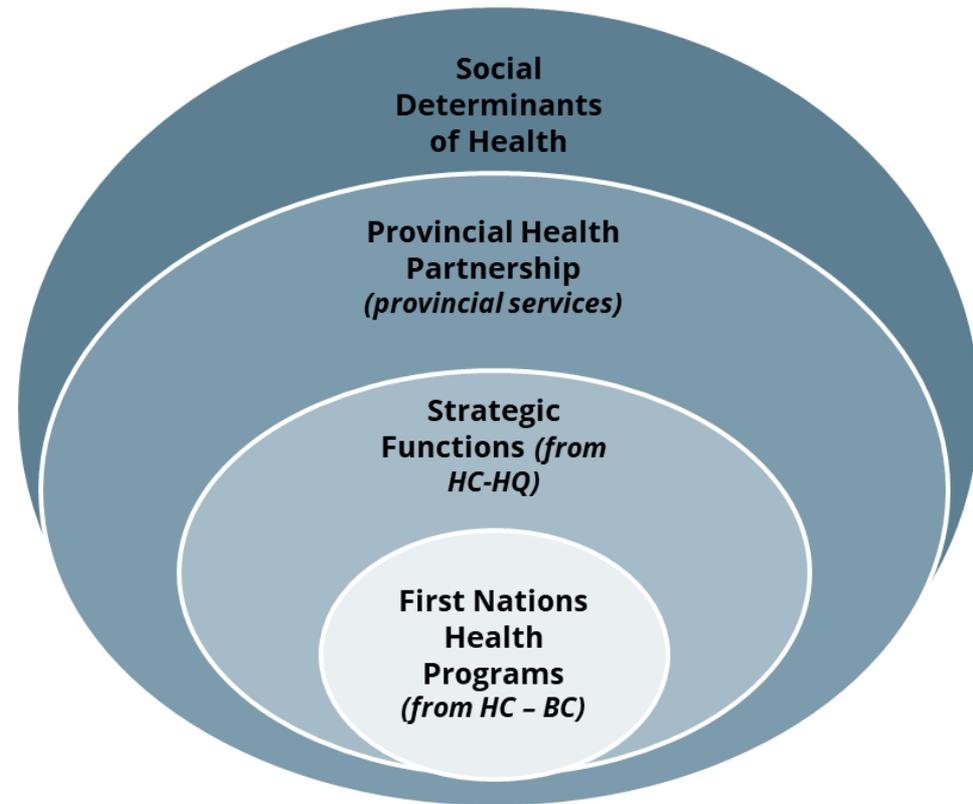
## Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.



## The First Nations Health Authority is the first and only province-wide health authority of its kind in Canada

- In 2013, (formerly) Health Canada transitioned from designer and deliverer to that of funder and governance partner.
- The FNHA is responsible for a combination of functions: including **service design and delivery** functions inherited from Health Canada-BC and **strategic policy and planning** functions inherited from Health Canada-HQ.
- The FNHA maintains a unique position in the provincial system with focus on improving community-based services, improving access to and integration with mainstream services, and addressing the underlying determinants of health.



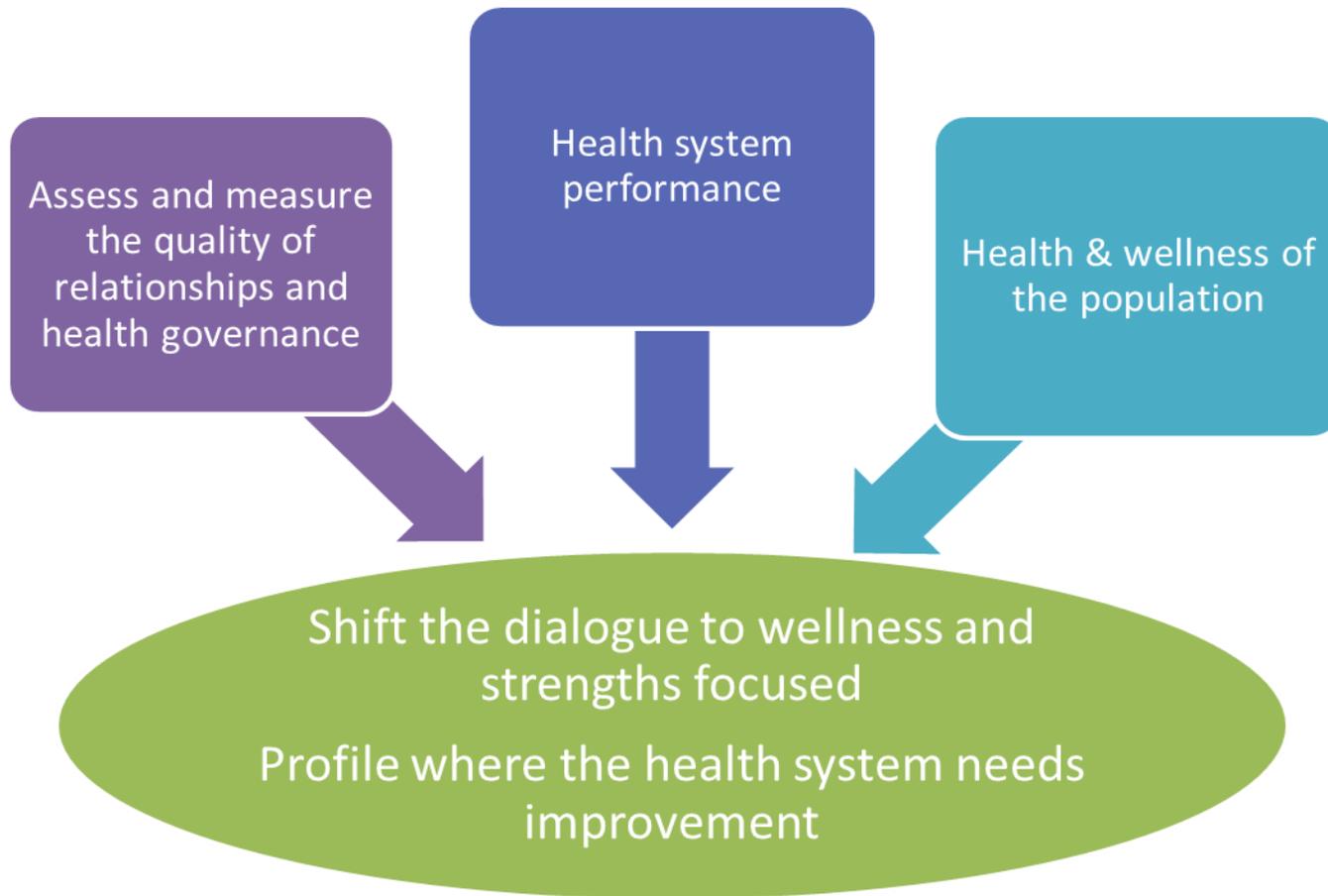


## Primary Care Transformation – BC Landscape

- 27 Joint Project Board funded projects across the province – advance strategic priorities, reflect regional needs, and support the integration of services and initiatives between the province and FNHA.
- 17 First Nations-led primary health care projects in development: in alignment with FNHA’s Primary Health Care ++ Approach and the BC Ministry of Health’s (MOH) Community Health Centre policy direction.
- FNHA partnership with the MOH and the General Practice Services Committee (GPSC) to ensure First Nations benefit from the implementation of the provincial integrated system of Primary and Community Care, including Primary Care Networks (PCNs) that provide a clinical network of primary care providers in a geographic area.



## Our Data Interests





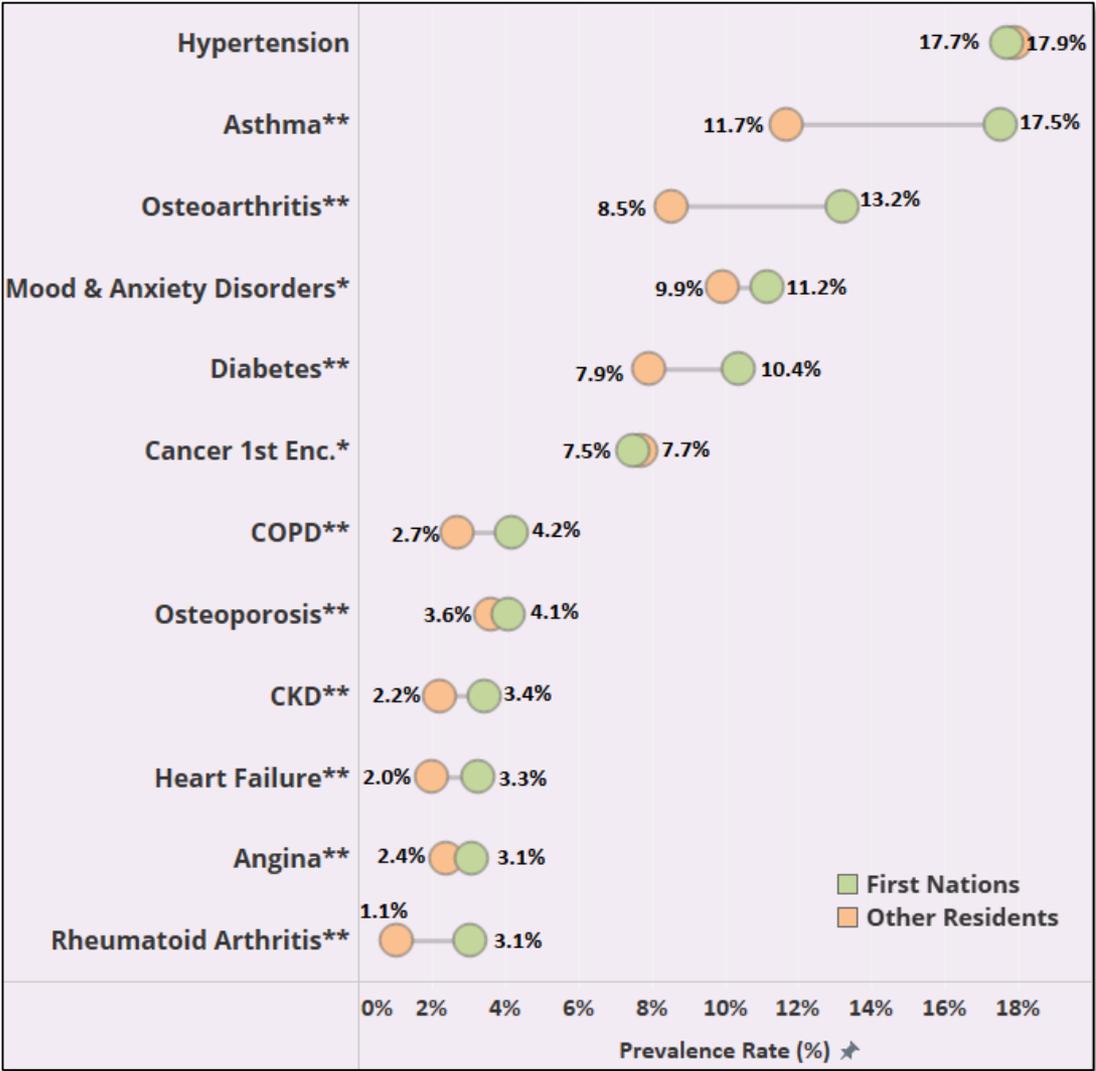
## Health System Matrix

- The data shown today is a result of a data match between the First Nations Client File (FNCF) and the Health System Matrix (HSM), a provincial health service database. Data is from 2014/15, with trending between 2008/09 and 2014/15.
- The HSM is a database that holds cost and utilization data across a broad scope of health services in British Columbia, including hospital and physician care, community supports for daily living, and residential care.
- The FNCF is a cohort of First Nations people in BC registered with Indian Status, and their children who may be eligible to be registered with Indian Status.
- The FNCF is rigorously governed by the Data and Information Planning Committee, a Tripartite body (Ministry of Health, FNHA and Indigenous Services Canada) that collaborates to use the FNCF optimally, ethically, and in a manner that is consensus-driven.



# First Nations in BC had elevated rates for 17 chronic conditions

A/S chronic condition prevalence rate, First Nations and Other Residents, BC, 2014/15



- First Nations compared to Other Residents
  - 17 conditions: significantly higher (\*\* in diagram; 7 not shown: colorectal cancer, stroke, AMI, epilepsy, dialysis, cervical cancer, transplant)
  - 3 conditions: significantly lower (\* in diagram; 2 not shown: MS, prostate cancer)
- Generally, female rates were higher than male rates, except for cardiovascular conditions

AMI: acute myocardial infarction;  
 CKD: chronic kidney disease; COPD: chronic obstructive pulmonary disorder; MS: multiple sclerosis



In the majority of chronic conditions, First Nations prevalence rates were stable or improved when compared to Other Residents (2008/09-2014/15)

Significantly Higher than Other Residents, but **Stable** Rates

- Stroke
- Heart Failure
- AMI
- Osteoporosis
- Colorectal Cancer
- Angina
- Mood & Anxiety Disorders
- Rheumatoid Arthritis

**No Difference or Lower** compared to Other Residents

- PTCA
- Hypertension
- Breast Cancer
- Cancer 1<sup>st</sup> Encounter
- Alzheimer's dementia
- Prostate Cancer

Significantly Higher, and....

Gap **Lessened**

- CKD
- COPD
- Osteoarthritis
- Diabetes

Gap **Increased**

- Epilepsy
- Asthma

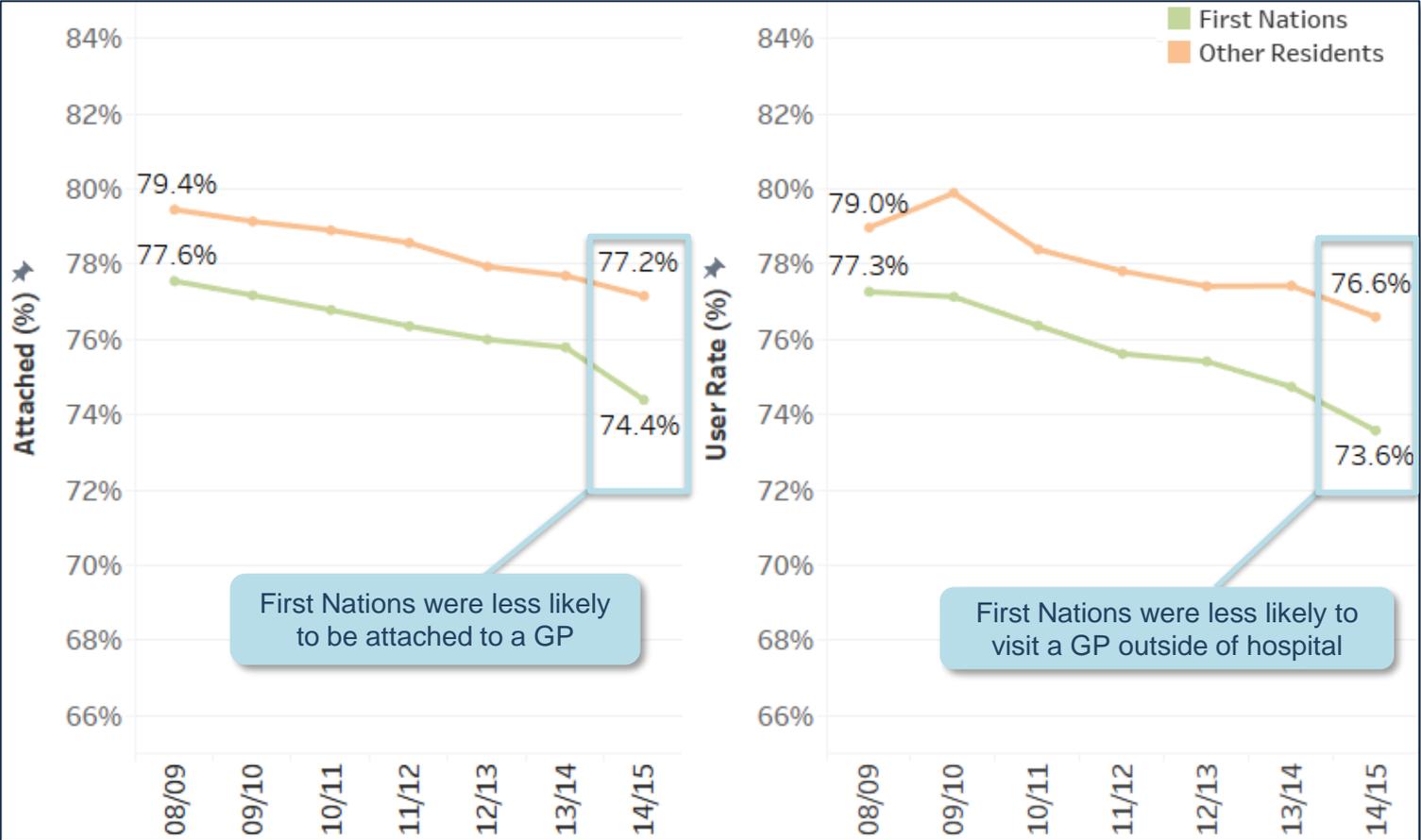
*AMI: acute myocardial infarction; PTCA: percutaneous transluminal angioplasty; CKD: chronic kidney disease; COPD: chronic obstructive pulmonary disease*

Note: conditions with a prevalence rate of less than 1% are not shown.



## Data suggests lesser access by First Nations to physician primary care

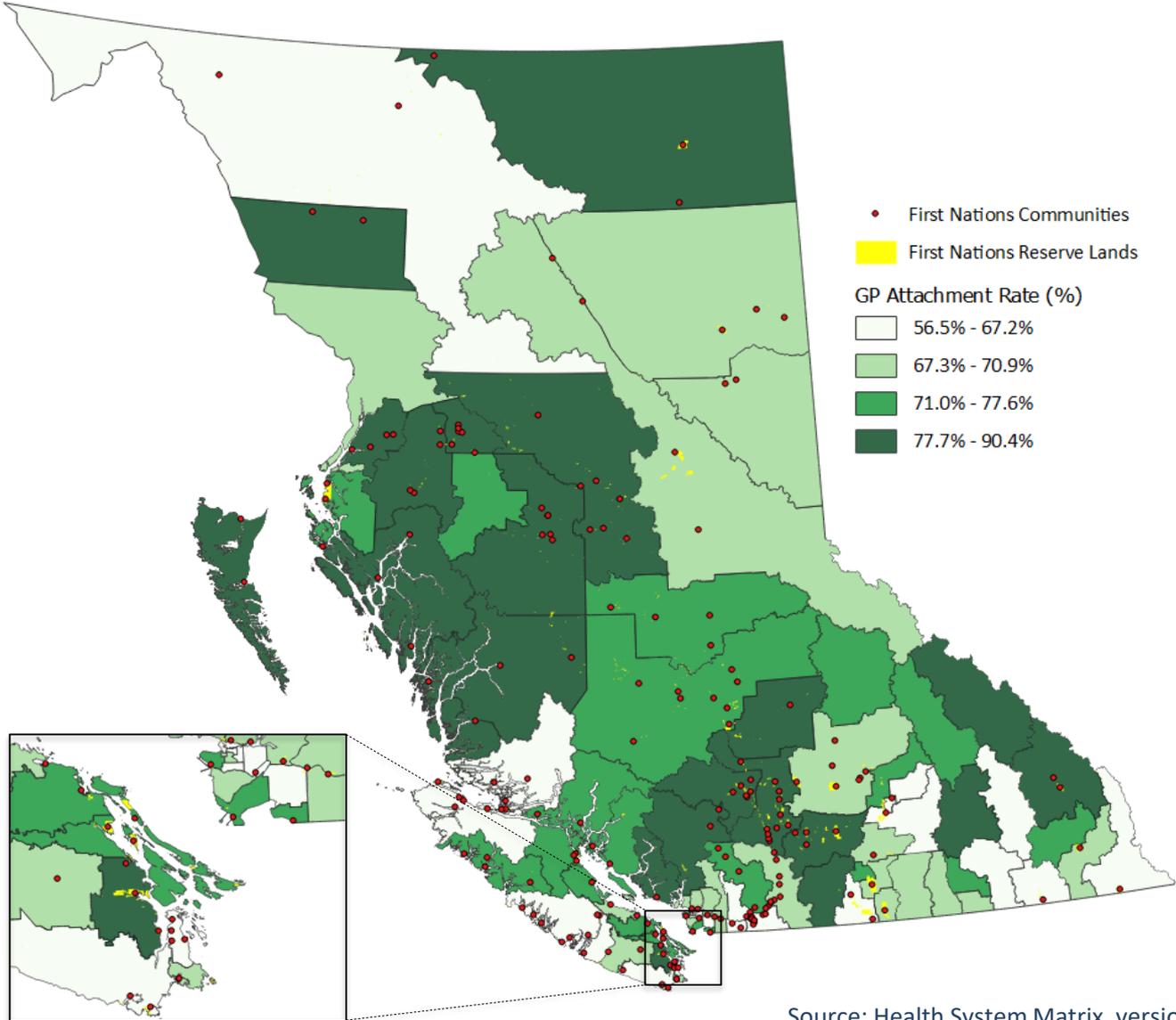
A/S trends in GP attachment (left) and non-hospital GP utilization (right), First Nations and Other Residents, BC, 2008/09-2014/15



Note: GP attachment is based on the number of visits with a GP in a single practice. Individuals are considered attached to their GP if at least half of their visits within a given fiscal year were with GPs in a single practice. If the most recent year's total is less than 5, up to ten previous years are analyzed in order to arrive at five visits.



# Crude GP Attachment Rates, by LHA, First Nations, BC, 2014/15





% difference in expenditures per capita, First Nations & Other Residents, 2014/15

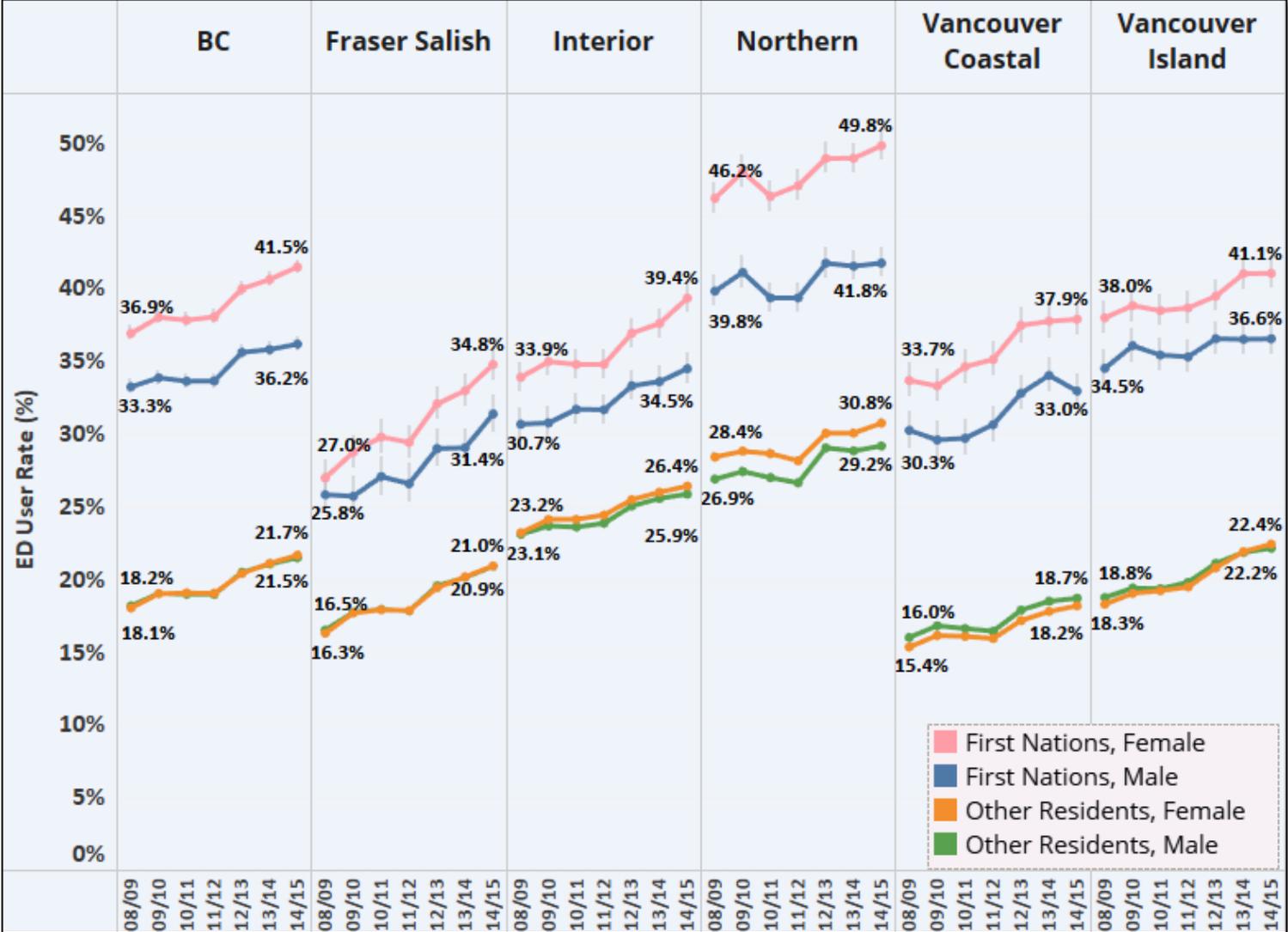
	General & Specialized Physician Services	Surgeon	Diagnostic Imaging	Pathology/Lab	Hospital (Inpatient & Day Surgery)	Emergency Department
PS02 Healthy	-9.9%	-43.7%	-31.6%	-19.1%	137.7%	
PS08 Mat & Healthy Newborns	11.2%	26.6%	-6.2%	41.2%	39.7%	172.0%
PS03 Adult Major Age 18+	19.1%	10.8%	-15.1%	9.5%	73.6%	154.3%
PS04 Child and Youth Major <18	-31.9%	-34.5%	-32.6%	-29.3%	-34.5%	32.7%
PS07 MH & SU	-10.0%	-7.6%	-16.1%	-4.9%	58.8%	108.1%
PS12 Cancer	12.6%	-7.8%	-0.9%	5.3%	58.1%	121.3%
PS05 Low Complex Chronic	-10.0%	-31.8%	-31.9%	-14.7%	35.3%	146.0%
PS06 Medium Complex Chronic	-1.3%	-26.9%	-15.3%	6.1%	36.5%	143.7%
PS10 High Complex Chronic w/o HCC	2.5%	-13.8%	-12.5%	8.4%	48.0%	122.7%
PS09 Frail In The Community	16.9%	-8.5%	2.6%	14.3%	60.7%	75.8%
PS11 High Complex Chronic with HCC	25.4%	25.6%	15.6%	18.5%	62.2%	80.5%
PS13 Frail In Residential Care	13.3%	18.2%	31.8%	5.7%	35.5%	53.1%
PS14 End Of Life	31.7%	35.2%	21.9%	11.8%	57.6%	78.5%
All Population Segments	-7.2%	-27.7%	-28.8%	-9.8%	22.5%	124.2%
	0% 200%	0% 200%	0% 200%	0% 200%	0% 200%	0% 200%
	% Difference	% Difference	% Difference	% Difference	% Difference	% Difference

Positive percentages mean the First Nations per capita cost was higher.  
 Negative percentages mean the First Nations per capita cost was lower.



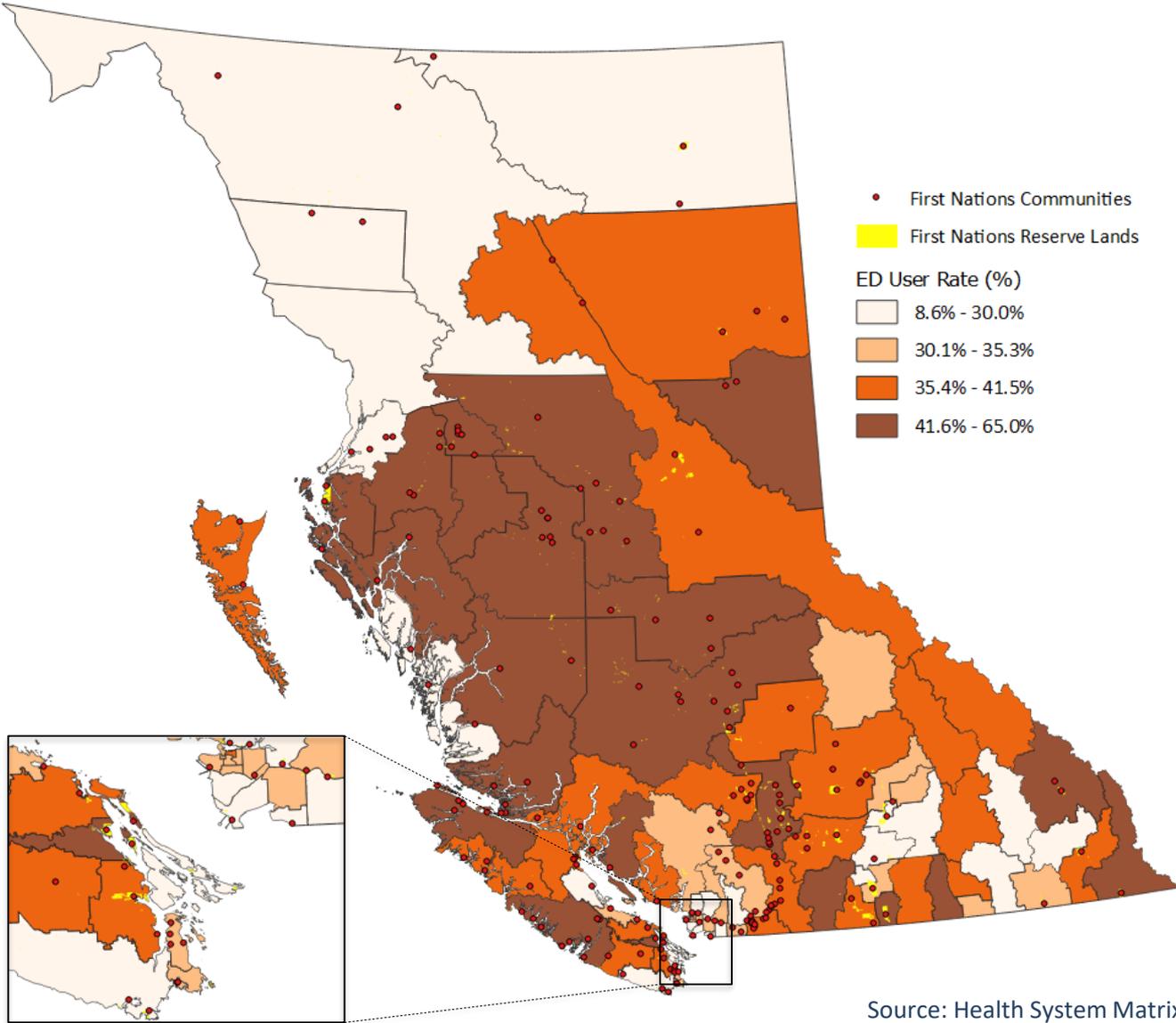
First Nations were overrepresented in EDs

A/S ED user rate trend by region and sex, First Nations & Other Residents, 2008/09-2014/15





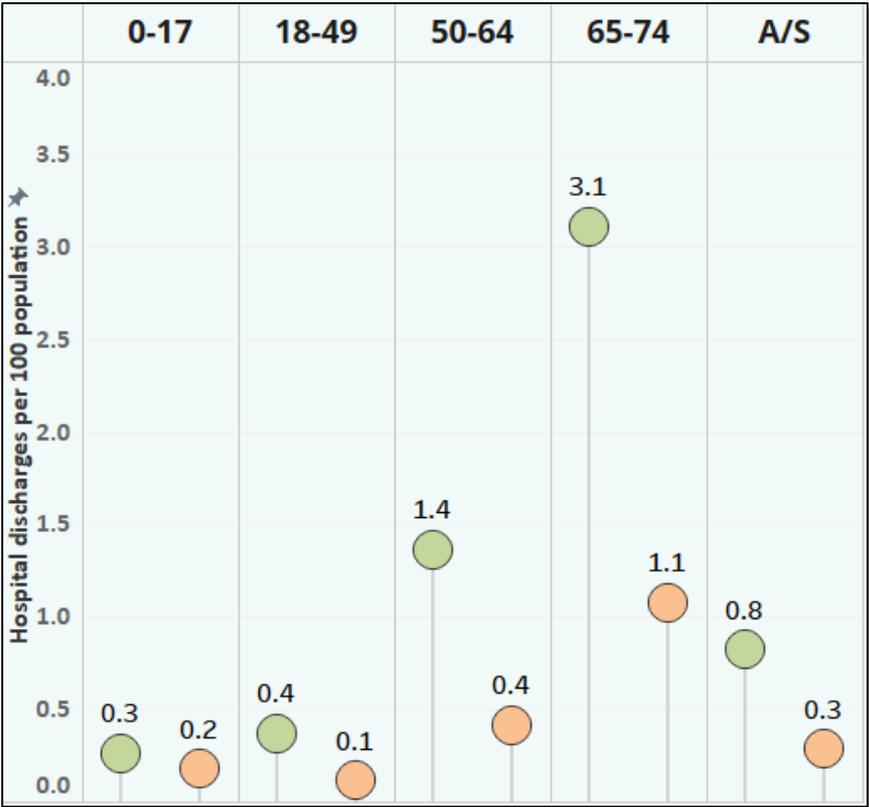
# Crude Emergency Department Utilization, by LHA, First Nations, BC, 2014/15





## First Nations experienced higher rates of hospitalization for ambulatory care sensitive (ACSC) conditions

ACSC hospitalization rate by age group, First Nations & Other Residents, BC, 2014/15



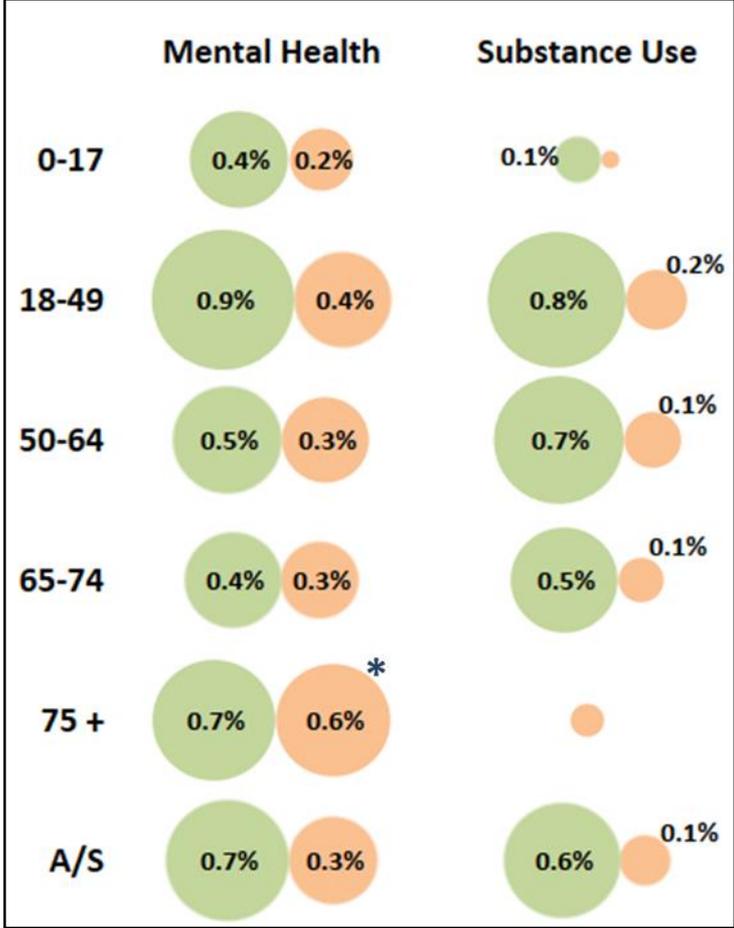
● First Nations  
● Other Residents

- The rate of ACSC hospitalizations **increased** across the **adult** life course in both First Nations and Other Resident populations.
  - First Nations ACSC hospitalization rates **were significantly higher across all age groups and for the a/s rate (0-74 yrs).**
- The smallest difference between populations was seen in the **0-17** age group where the First Nations ACSC hospitalization rate (0.3 per 100) was **1.5x higher** than the Other Resident rate (0.2 per 100). The **greatest disparity** was with **50-64 year olds**, with the First Nations rate (1.4 per 100) 3.3 times higher than the rate of Other Residents (0.4 per 100)



# First Nations were more likely to be hospitalized for mental health and substance use reasons

Mental health (left) and substance use (right) hospital user rates, by age group, First Nations and Other Residents, BC, 2014/15



\*Mental health hospital user rates were comparable between First Nations and Other Residents over 75 years.

- First Nations under 65 years were more likely to be hospitalized for mental health reasons compared to Other Residents. The First Nations rate was **two or more times** greater for those 0-17 and 18-49 years, and also overall.
- Substance use services showed a much greater disparity in rates between populations, compared to mental health.
  - Across all age groups, hospital user rates were **5-6 times higher** for First Nations compared to Other Residents

Note: insufficient data for First Nations 75+ years, substance use hospital services. Labels not shown for user rates less than 0.1%



## How the HSM is a Support for Primary Care Innovation

- The HSM data assists us in understanding the magnitude of primary care needs in the First Nations population, and also supports optimal geographic placement of finite primary care resources.
- It confirms our focus on understanding the structural determinants of health which are the root causes of chronic diseases.
- It provides data to assist our primary care partners in their developmental work to ensure First Nations are represented in their new and existing primary care delivery systems.
- It reinforces the need for continued strong collaboration between community and provincial health systems, in a climate of cultural humility and safety
  - Develop integrated solutions to improve primary care access, institute strong prevention-focused services to reverse the trajectory of chronic diseases from low to high complexity and their complications, support community based approaches to dealing with mental illness, and address the needs of the medically frail senior population to assist them to live independently and at their fullest potential.

# Thank you

**Gayaxsixa** (Hailhzaqvla)

**Huy tseep q'u** (Stz'uminus)

**Dun'kwu** (Haida)

**Gila'kasla** (Kwakwaka'wakw)

**Kleco Kleco** (Nuu-Chah-Nulth)

**k<sup>w</sup>uk<sup>w</sup>stéyp** (Nlaka'pamux)

**Tooyksim niin** (Nisga'a)

**Kukwstsétsemc** (Secwepemc)

**čěčhaθěč** (Ayajuthem)

**Sechanalyagh** (Tsilhqot'in)

**kw'as ho:y** (Halq'eméylem)

**T'oyaxsim nisim** (Gitxsan)

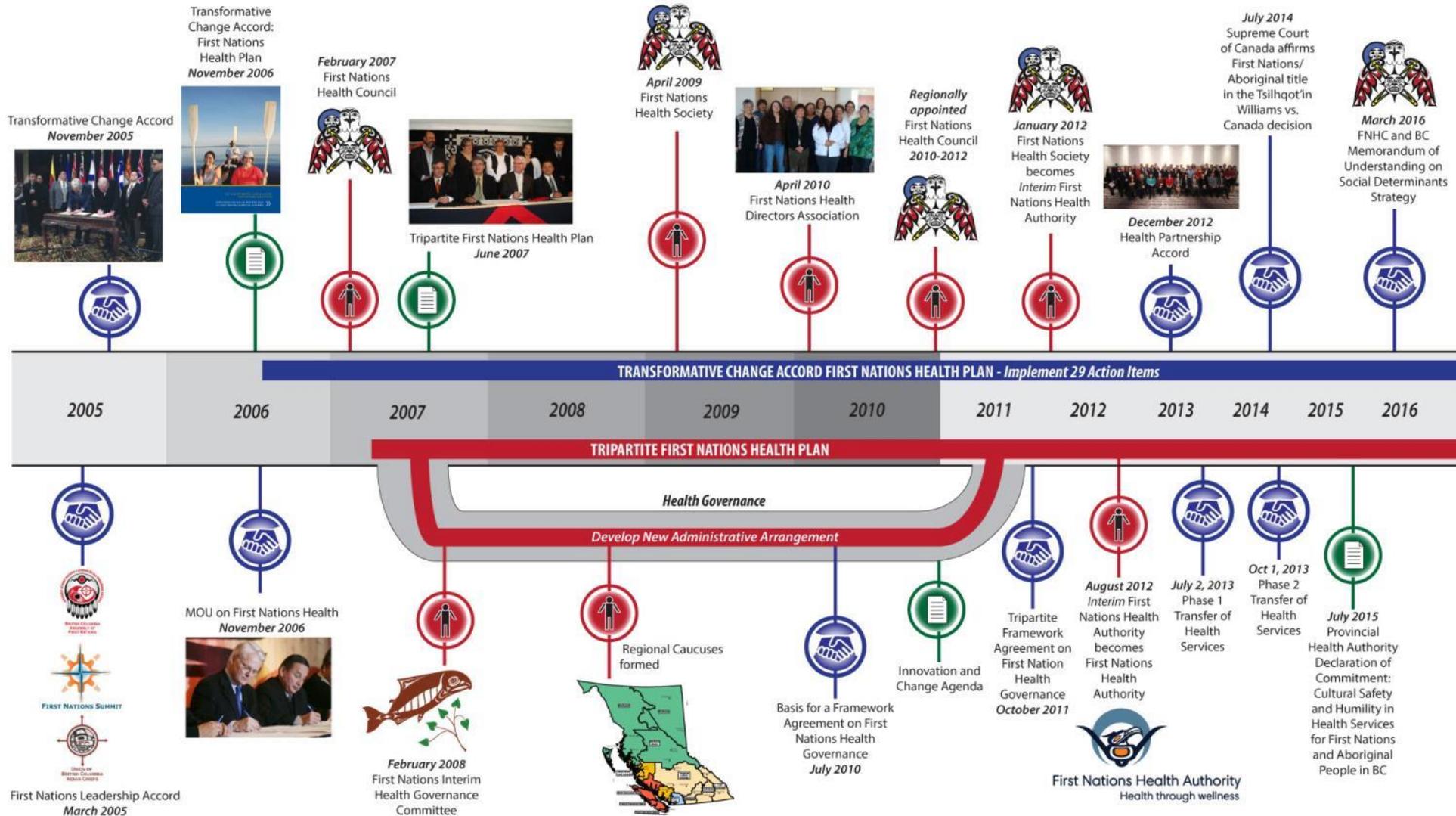


# ANNEX



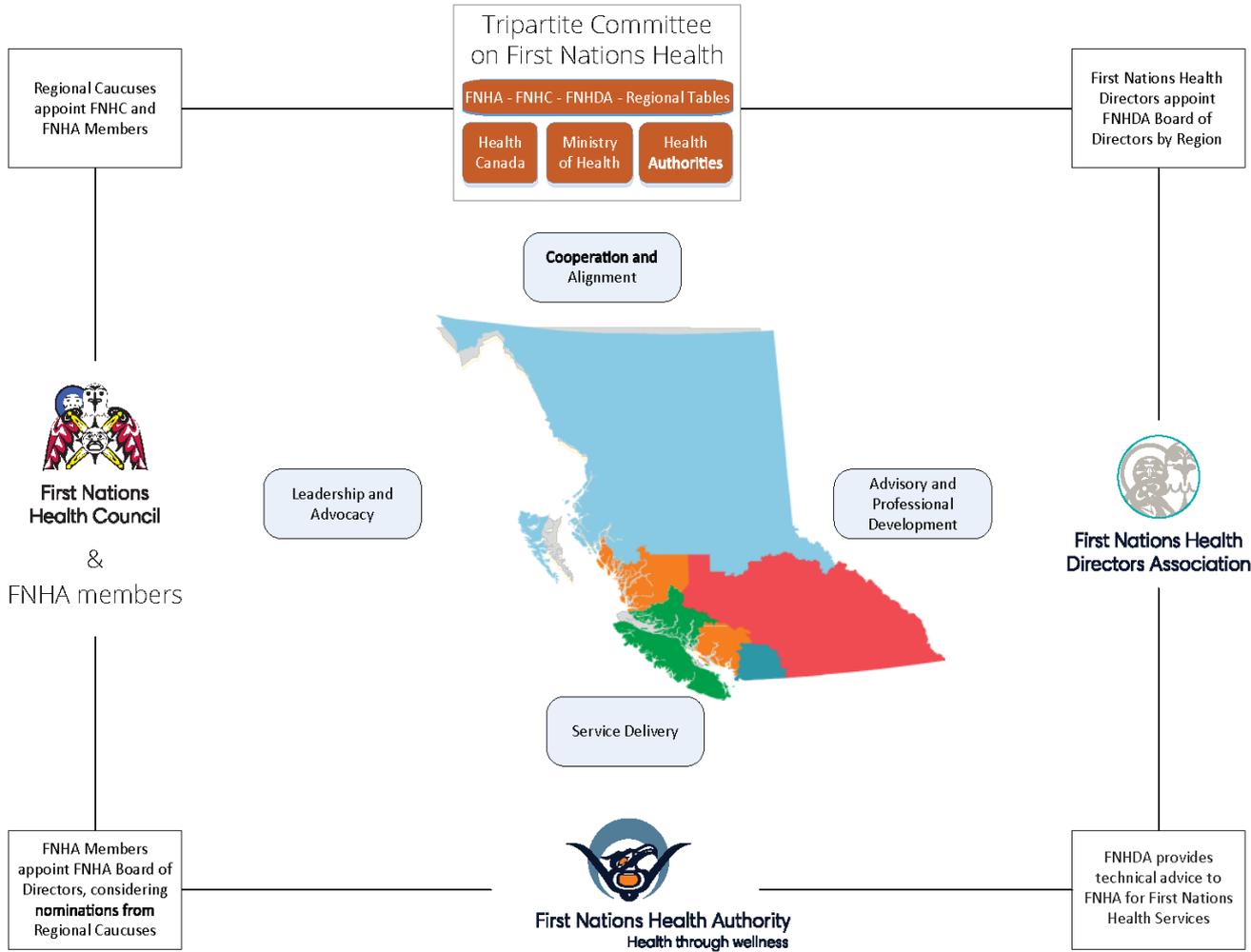


# Where we've been





# First Nations Health Governance Structure



**Reciprocal accountability:** Work at all levels to achieve our shared goals, living up to our individual and collective commitments.

Each Partner is accountable to the others for its actions, and for the effective implementation and operation of their responsibilities and systems, recognizing that our work as Partners is interdependent and interconnected.

We strive not only to live up to one another's expectations, but to exceed them.



# Our Common Foundation

**Our Vision:** Healthy, self-determining and vibrant BC First Nations children, families and communities

British Columbia First Nations Perspectives  
on a New Health Governance Arrangement

## CONSENSUS PAPER

### Our Values

- Respect
- Discipline
- Relationships
- Culture
- Excellence
- Fairness

### Directives

1. Community Driven, Nation Based
2. Increase First Nations Decision-Making
3. Improve Services
4. Foster Meaningful Collaboration and Partnerships
5. Develop Human and Economic Capacity
6. Be without Prejudice to First Nations Interests
7. Function at a High Operational Standard





# Ecosystem of Health and Wellness

