

# Development of priority indicators for health equity surveillance in British Columbia



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# Outline

- Background
  - PHSA
  - Health equity indicator development
- Process of indicator prioritization
- Outcomes of the process
- Lessons learned and policy implications

# Provincial Health Services Authority (PHSA)

## PHSA

- One of seven health authorities in BC (other five serve geographic regions, and one serves First Nations)

## Specialized services

- Primary role of PHSA is to ensure coordinated access to a network of specialized health care services & agencies

## Population and Public Health

- A Program with a focus on upstream prevention approaches to enhance health

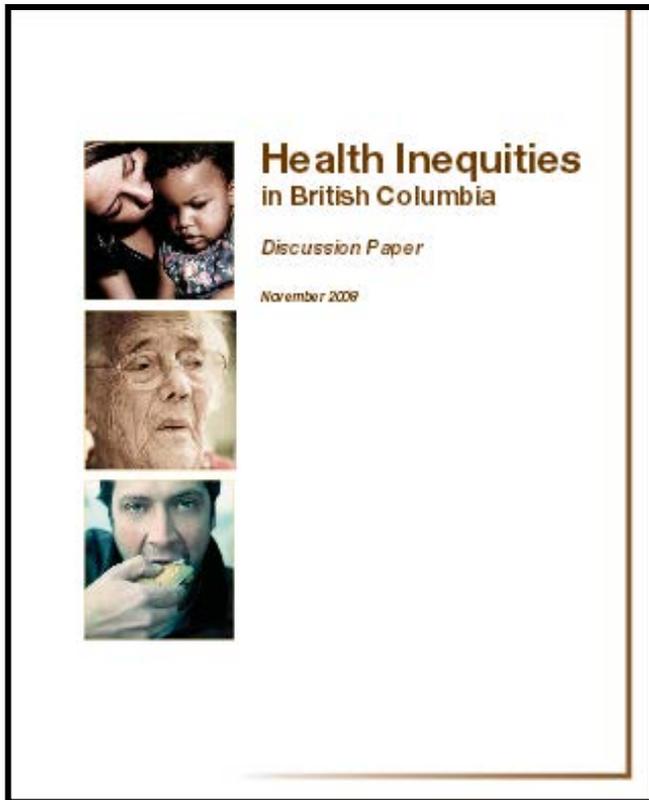
## Agencies

- BC Women's Hospital and Health Centre
- BC Children's Hospital
- BC Cancer Agency
- BC Mental Health & Addiction Services
- BC Centre for Disease Control
- Provincial Renal Agency
- Cardiac Services BC
- Perinatal Services BC
- BC Transplant Services



# Background:

## Health Officers' Council of BC Report 2008



- Revealed the 'BC paradox'
  - British Columbians have some of the best overall health outcomes in Canada, yet BC also has the highest rates of inequity
  - BC health indicators varied by geography, demographics, and socioeconomic status

### Health equity

*The absence of unfair and avoidable or remediable differences in health among populations or groups defined socially, economically, demographically or geographically.*

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-World Health Organization



# Background:

## PHSA discussion paper 2011

- Discusses the actions the health system can take to promote health equity
  - Goal: ensure policies, programs, and services are available, accessible, and acceptable to all

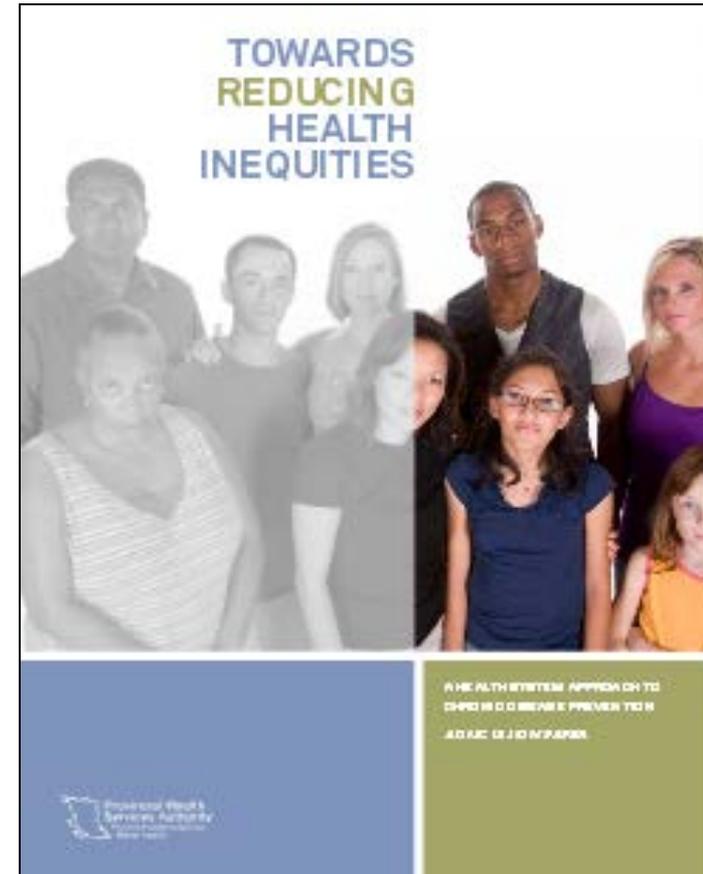
### First of five recommendations:

➤ Develop health equity targets and plans in consultation with communities and community members and actively monitor and measure their impact on health inequities

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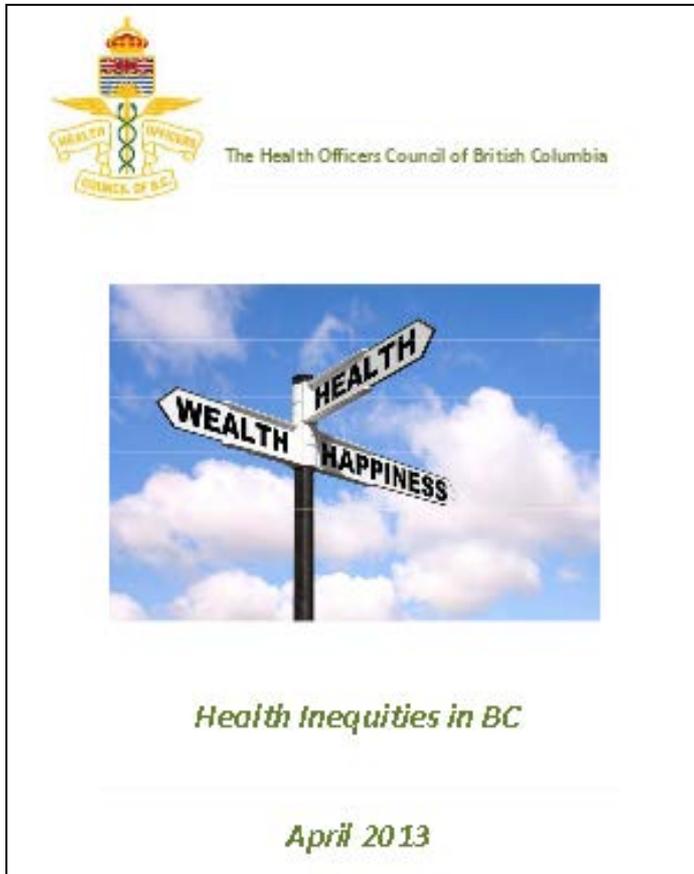


**HEALTH EQUITY  
INDICATORS**



# Background:

## Health Officers' Council of BC Report 2013



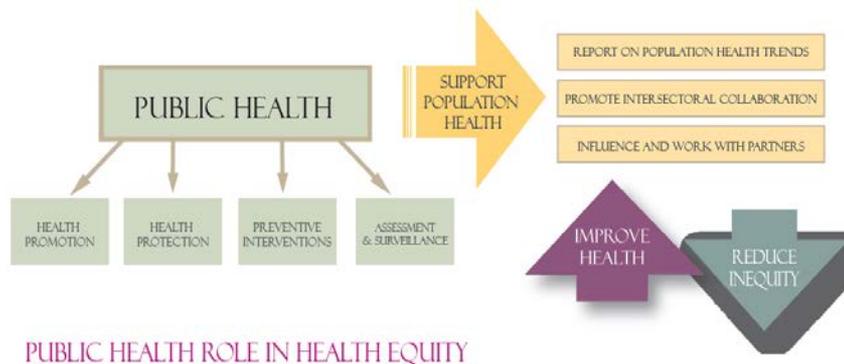
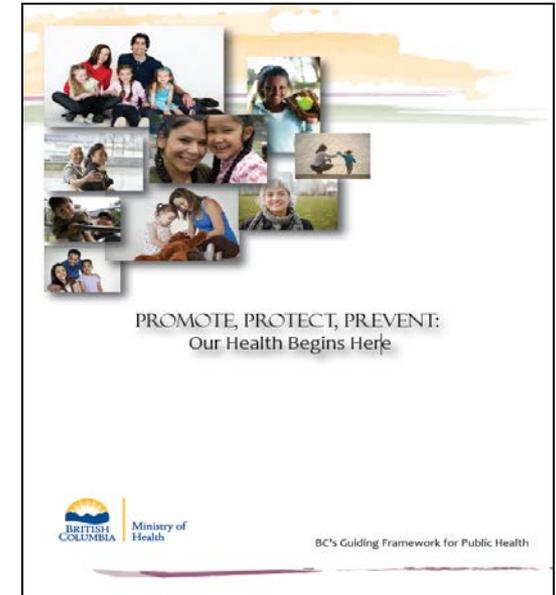
- Update to 2008 report
- Revealed that health inequities are increasing in BC

# Background:

## BC's Guiding Framework for Public Health, 2013

### Public health roles in reducing health inequities:

- Monitoring and reporting on health inequities
- Public health interventions to support equitable health outcomes
- All health services are designed to reduce health inequity
- Formulate policies and programs that will reduce health inequities
- Collaborating beyond the health system to address the inequities among the broader environmental, social, economic and other determinants of health.



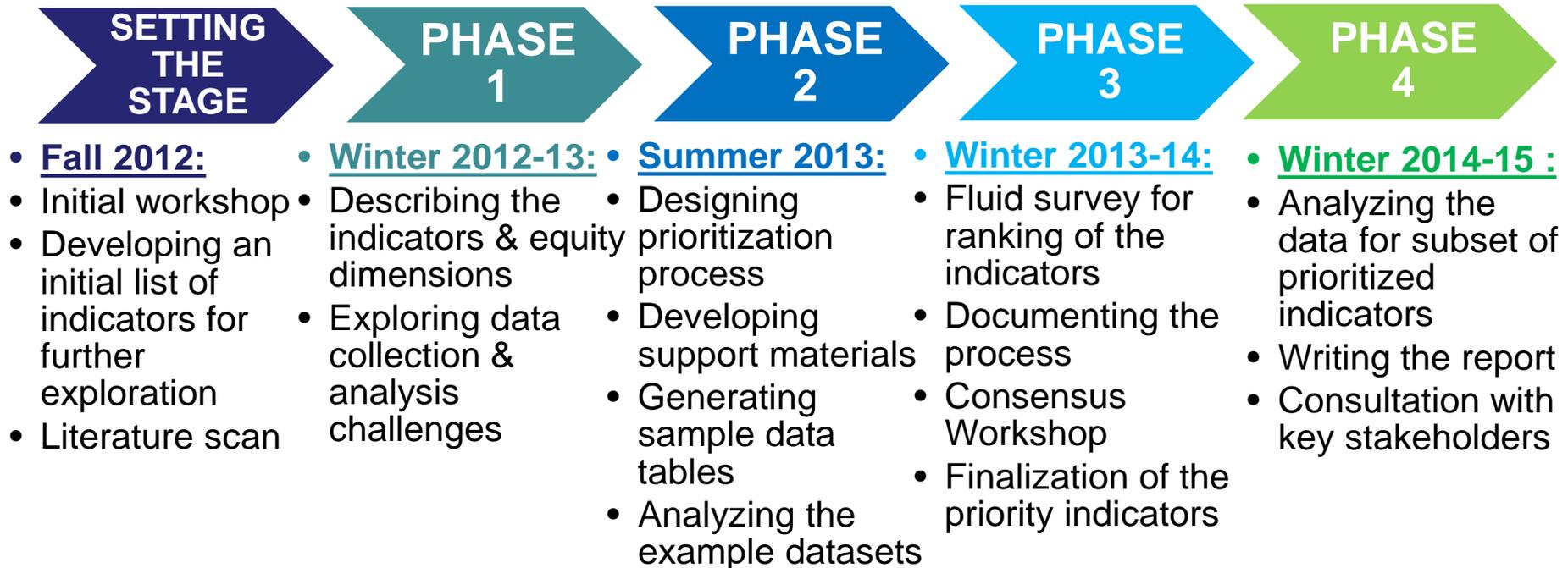
# PHSA project: Developing health equity indicators

## Purpose

- To describe population-level health equity in BC to inform health care services, strategies and public health policy planning.
- To complement health status reporting in BC such as *BC's Guiding Framework of Public Health*.



# Indicator development process and timelines



Guided by the Technical Working Group

# Three-tier framework for prioritization of health equity indicators

<b>Health status and outcomes</b>			
These indicators are measured in a variety of ways, including well-being, health conditions, disability or death.			
Well-being	Health conditions	Human function	Death
<b>Health system performance</b>			
These indicators measure various aspects of the quality and performance of health care system.			
Acceptability	Accessibility	Appropriateness	Competence
Continuity	Effectiveness	Efficiency	Safety
<b>Non-medical determinants of health</b>			
These indicators of non-medical determinants of health include behavioural and environmental risk factors.			
Health behaviours	Living and working conditions	Personal resources	Environmental factors



Adapted from CIHI Health Indicators, 2011

# Priority health equity indicator selection criteria

<b>Comparable</b>	<ul style="list-style-type: none"> <li>• <i>There are sufficient numbers for stable comparisons of occurrence across population sub-groups, jurisdictions or social strata.</i></li> </ul>
<b>Actionable</b>	<ul style="list-style-type: none"> <li>• <i>It measures a health issue that is preventable.</i></li> <li>• <i>It is amenable to change through policy, programs and/or services.</i></li> </ul>
<b>Relevant</b>	<ul style="list-style-type: none"> <li>• <i>It is the most appropriate measurement for the outcome envisioned.</i></li> <li>• <i>It is based on an underlying conceptual framework.</i></li> <li>• <i>It is linked to access to health care, health outcomes, or performance measures for which a specific organization is accountable.</i></li> <li>• <i>It reflects the Province and/or Health Authority's strategic priorities and mandate.</i></li> </ul>
<b>Based on Scientific Criteria (Accurate, Valid, Reliable)</b>	<ul style="list-style-type: none"> <li>• <i>There is significant precision in the measurement.</i></li> <li>• <i>It is an objective statistical measure gathered through sound research techniques (valid).</i></li> <li>• <i>There is evidence for its relationship with inequities in health.</i></li> <li>• <i>It has been tested and validated to measure what it is intended to measure.</i></li> <li>• <i>It avoids "reverse causation" resulting from health conditions such as those that cause lengthy periods of disability prior to hospitalization or subsequent death.</i></li> <li>• <i>It provides consistent measures of both the general population, and members of diverse populations over time (reliable).</i></li> </ul>
<b>Ethical</b>	<ul style="list-style-type: none"> <li>• <i>There are no unintended or negative consequences of the data.</i></li> </ul>
<b>Sustainable</b>	<ul style="list-style-type: none"> <li>• <i>The data can be collected, analyzed, presented and interpreted by existing processes.</i></li> <li>• <i>The data collection, analysis, presentation &amp; interpretation can be done on an ongoing basis.</i></li> </ul>
<b>Understandable</b>	<ul style="list-style-type: none"> <li>• <i>It has a clear and accepted interpretation that can be understood by decision-makers, the media, advocacy groups and the general public alike</i></li> </ul>
<b>Available</b>	<ul style="list-style-type: none"> <li>• <i>It is measurable with meaningful, quality, and population-wide data, which are:</i> <ol style="list-style-type: none"> <li>1) <i>Available at least at the provincial level.</i></li> <li>2) <i>Available to be collected and interpreted in a timely manner.</i></li> <li>3) <i>Available to be measured over time</i></li> </ol> </li> </ul>

➤ Criteria developed through literature scan, compilation of information and stakeholder consultation

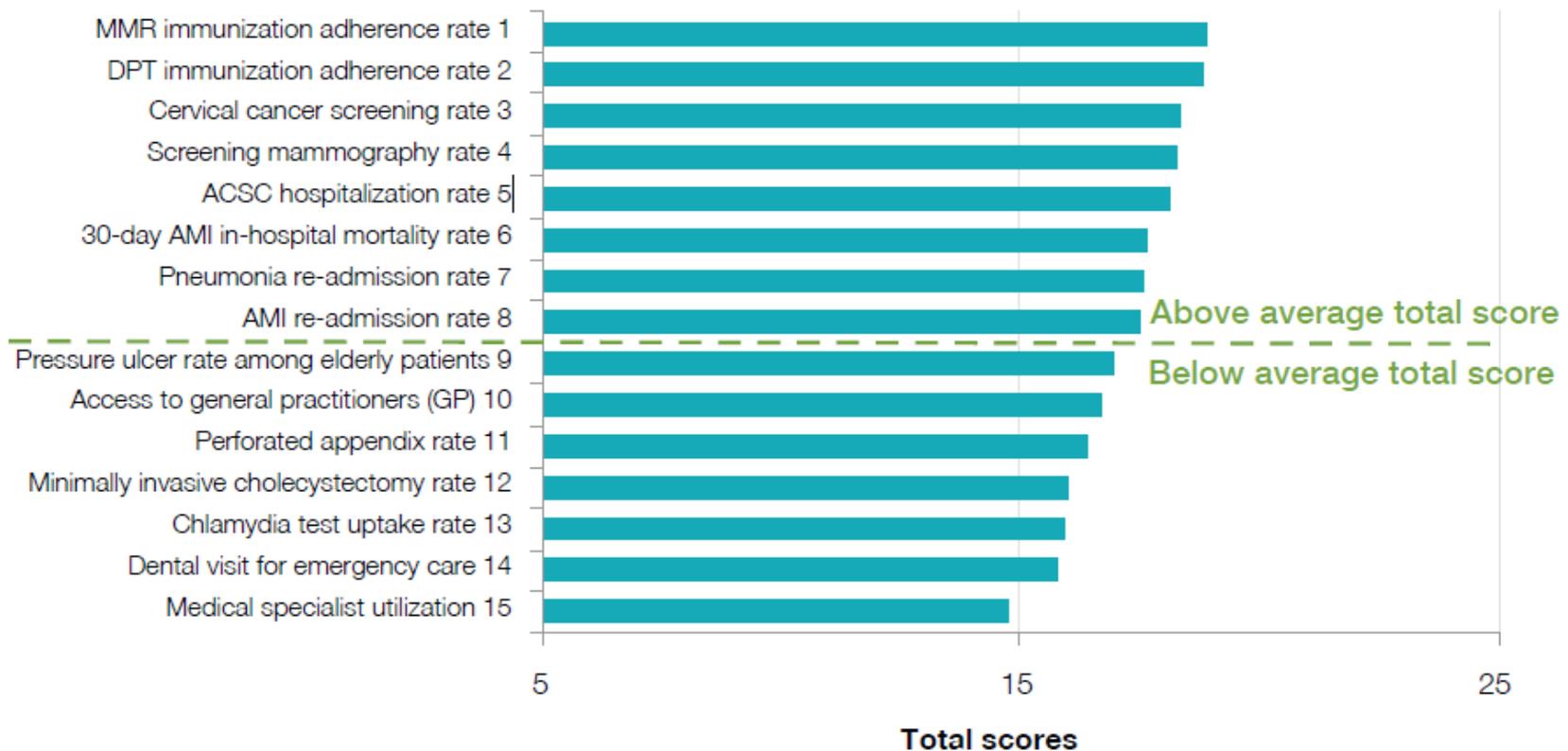
➤ Applied during online surveys

Will be applied to prioritized suite



# Fluid survey ranking of indicators within a tier: An example

Tier 2 Health system performance indicator total scores with ranking



# Cross-cutting equity dimensions

## Cross-cutting equity dimensions

Equity dimension theme	Cross-cutting equity dimension	Brief definition or description (all definitions refer to B.C. population)
Sociodemographic characteristics	Age	Refers to the age of a person at last birthday (or relative to a specified, well-defined reference date).
	Sex	Refers to whether the person was classified as male or female (either through self-identification or recording by Statistics Canada).
	Sexual orientation	Refers to persons with self-identified sexual orientation including heterosexual, lesbian, gay, bisexual, transgender, or questioning.
	Ethnicity	Refers to the ethnic or cultural group (single plus multiple responses) of a person.
	Aboriginal status	Aboriginal population refers to those persons who self-reported identifying with at least one Aboriginal group, i.e. North American Indian, Métis or Inuit and/or those who reported being a treaty Indian or a Registered Indian as defined by the Indian Act of Canada and/or who were members of an Indian Band or First Nation.
	Immigrant status	A landed immigrant is defined as a person who is not a Canadian citizen by birth, but to whom Canadian immigration authorities have granted the right to live in Canada permanently.
	Education	Level of schooling attained, generally refers to the population aged 15 or older so as to include only those persons likely to have reached 9th grade.
	Employment	Labor force consists of people currently employed and people who are unemployed but were available to start work in the week prior to enumeration and looked for work in the past four weeks.
	Income	Income quintile is a method used to measure the average household income of residents by aggregating household income to the dissemination area (DA) derived from Census data, ranking them from poorest to wealthiest, and then grouping them into five income quintiles (1 being poorest and 5 being wealthiest), each with about 20% of the population.

Equity dimension theme	Cross-cutting equity dimension	Brief definition or description (all definitions refer to B.C. population)
Sociodemographic characteristics (continued)	Persons below low-income cut off (LICO) vs. persons above LICO	Low income cut-offs (LICOs) are established to convey the income level at which a family may be in strained circumstances because it has to spend a greater proportion of its income on necessities than the average family of similar size. Specifically, the threshold is defined as the income below which a family is likely to spend 20 percentage points more of its income on food, shelter and clothing than the average family. There are separate cut-offs for seven sizes of family and for five community sizes.
	Homelessness	Homelessness describes the situation of an individual or family without stable, permanent, appropriate housing, or the immediate prospect, means and ability of acquiring it.
Geographic characteristics	Rural vs. urban residence	The Community Rating System used for primary care planning in B.C. will be adopted where each community is categorized into the urban category or one of four rural groups (A, B, C, and D). Rural groups B, C, and D will be pooled into one category to increase the sample size and power of stratified analysis.
	Specific vulnerable populations	Persons living with chronic illness(es)
Refugees		Refugees are people within or outside Canada who fear persecution and going back to their home country.
Children from families with parent(s) living with co-occurring mental illness and substance abuse disorders		Children from families with parent(s) living with co-occurring mental illness and substance abuse disorders.
Neighborhood deprivation	Neighborhood deprivation indices	There are a number of area-based socioeconomic indices that are developed to characterize the socioeconomic conditions (material and/or social deprivation) of an area/neighborhood when it is not possible to obtain the socioeconomic status of individuals. In Canada, common indices include Can-Marg, INSPQ's Pampalon Index, Neighborhood income, SEI, VANDIX, etc.

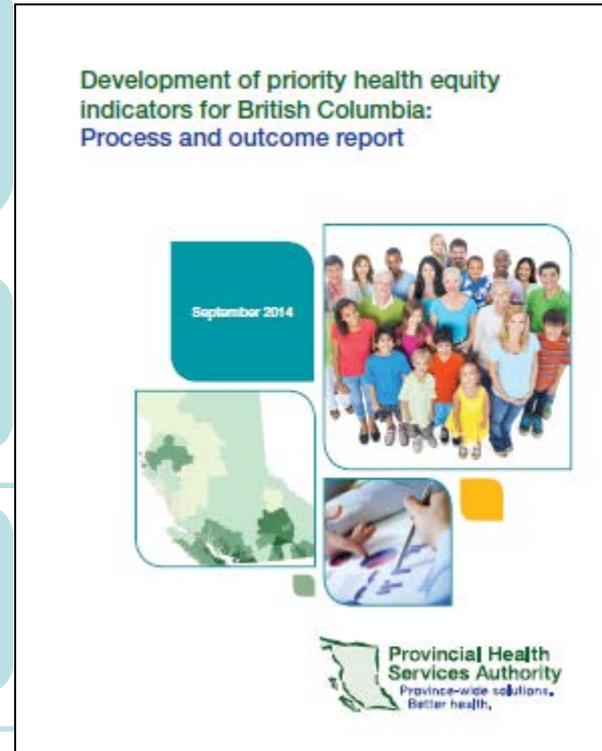
# Outcome of the development process:

**52 prioritized health equity indicators**

Health status and outcome:  
**27** indicators prioritized

Determinants of health:  
**15** indicators prioritized

Health system performance:  
**10** indicators prioritized



The list of indicators available in a full report at:

<http://www.phsa.ca/Documents/developmentofpriorityhealthequityindicatorsreportw.pdf>

# Some lessons learned from process

- Health inequity indicators should address population health as well as health system issues.
- Definition, identification and delineation of sub-populations (e.g., immigrant populations and other minority groups).
- Health sector alone cannot possibly address health inequity. There is a need for examining health inequity across sectors.
- Availability, access and linkage of data have been a great challenge

# Summary & next steps

- A robust consensus driven process has led to development of a suite of priority health equity indicators.
- These indicators will provide the basis for setting targets for equity in health.
- Reporting on the priority health equity indicator will provide complementary support towards achieving the visionary goals of the BC's Guiding Framework for Public Health for reducing province-wide health inequity.
- Access to and availability of indicator data and linkage to SES data is our next priority in this process.

# Acknowledgements and Declaration.

We acknowledge the contributions of the Health Equity Indicators Technical Working Group representing:

- Ministry of Health
- Health Authorities
- PHSA Agencies
- NGO partners
- University of Victoria

## **Declaration:**

**I have no conflict of interest to declare.**

**Thank you.**