

Population, Public and Indigenous Health  
Strategic Clinical Network™

# Population and Public Health

Transformational Roadmap  
February 2020



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## Foreword

For generations, our health care system has tended to operate in a reactive mode, addressing illness, injury and mental health conditions as they arise rather than working proactively with partners to create conditions for health. Improving population health in Alberta requires us to recognize three realities: 1) health is driven by factors that are mostly outside the scope of our health care system; 2) not everyone in Alberta has fair access to the factors that determine health; and 3) when we don't work with partners and across sectors to keep people healthy, our treatment services are stretched and the sustainability of our health care system is threatened.

The Population, Public and Indigenous Health (PPIH) Strategic Clinical Network™ (SCN), like all Alberta SCNs, works with partners and inspires solutions within a focused area of the health system. Having such a broad and substantial mandate, the PPIH SCN's work is guided by two core committees: the Population and Public Health Core Committee and the Indigenous Health Core Committee. (The Indigenous Health Transformational Roadmap can be found at <https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-ppih-ih-roadmap.pdf>).

The Population and Public Health core committee is a network of people passionate and knowledgeable about creating conditions for everyone in Alberta to reach their full health potential. Our transformational roadmap outlines our commitment to developing innovative and scalable solutions in two main areas: strengthening community action and reorienting health services. We see more clearly than ever that to improve the health of people in Alberta we must build on the resilience and strength of our communities and engage partners across all sectors. Health care teams and programs can play a key role with community partners in addressing local population health needs in addition to resolving immediate medical concerns. A reoriented health system pays attention to what people and communities need to get healthy and stay healthy, and it contributes as a full partner in creating those conditions.

We hope our Population and Public Health Transformational Roadmap provides a pathway for a consistent and coordinated response to population health needs so we can work together in creating conditions for better health and care for every person in Alberta. This positions Alberta to join high performing health systems around the world that are taking a more active role in advancing health equity, improving health outcomes for the whole population and reducing costs of care.

We thank our exceptionally dedicated core committee members, and in particular our patient and family/community representatives whose stories and experiences inform our approach every step of the way. This work would also not be possible without our talented PPIH SCN team and contributions from many partners across the province.

We invite you to join us in improving population health outcomes for everyone in Alberta.

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# The Case for Population Health

Population health concerns itself with creating the conditions for all people to live healthier, longer and more fulfilling lives. It acts upon a broad range of factors that have a strong influence on individual and population health outcomes, and it helps ensure everyone has the opportunity needed to achieve optimal health.<sup>1</sup> Population health has broad-reaching importance for a variety of reasons:

- Being healthy is a personal capacity that lets everyone in Alberta lead their best lives and focus on what matters most to them.
- Focusing on the health of the whole population helps ensure we pay attention to groups who have not had the opportunity to benefit fully from the systems that enable health.
- A healthy population has societal benefits that extend well beyond improved health outcomes. Health underpins our ability to fully support our families and friends, find meaningful work, and engage with our communities.
- A healthy community is more resilient to immediate crises and enduring challenges. It can support every member to withstand threats ranging from aggressive marketing of vaping products to youth, to an influx of refugees, to natural disasters and other health outcomes linked to climate change.
- A healthy province is the foundation for a thriving economy and the innovation essential for Alberta's future.

Our purpose is to help and improve the population health of the public. Sometimes it is one person at a time and sometimes it is groups and populations and communities at a time.

## Core Committee Member

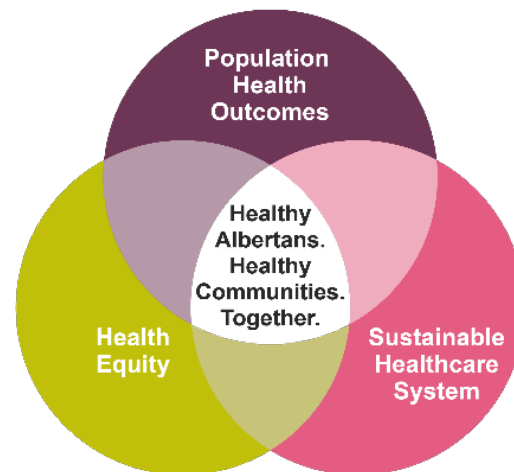
- A healthier population requires less curative health care and fewer social services. The sustainability of our health care system depends on our population being healthy and staying well longer. This is our best strategy for alleviating demands on treatment services and reducing the cost of delivering care.

Focusing on population health, then, has three overarching benefits that are essential for Alberta Health Services to realize its vision of Healthy Albertans. Healthy Communities. Together:

1. Improved health outcomes for the whole population
2. A more fair distribution of the resources for health and health outcomes (health equity)
3. A more sustainable health care system

Let's see how a focus on population health could benefit people in Alberta.

**FIGURE 1**  
The Benefits of Population Health



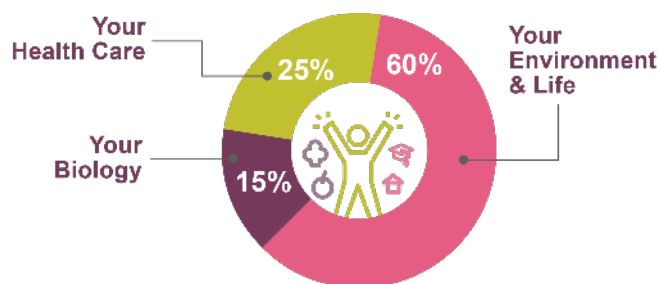
## How Healthy Are We?

While there is no single measure that captures all components of population health, life expectancy is a commonly used proxy. Despite our higher than average per capita health care spending,<sup>2</sup> life expectancy in Alberta is actually lower than the Canadian average.<sup>3</sup> And whereas life expectancy in all other provinces combined recently stopped increasing for the first time in decades, life expectancy in Alberta actually declined from 2016 to 2017, largely due to the opioid crisis.<sup>4</sup> We lag behind other provinces in several other key measures of population health across multiple domains including potentially avoidable deaths, hospitalizations entirely due to alcohol, and percentage of children vulnerable at school entry in one or more areas of early development.<sup>5</sup> These measures are likely to improve only if we take a broad population health approach. One element of population health where people in Alberta score higher than other provinces is perceived health. Compared with all other provinces and territories, Alberta has the highest percentage (65.2%) of people aged 12 years and older who report their health as being excellent or very good.<sup>6</sup> This may be linked to the fact that Alberta's population is younger than most other provinces.<sup>7</sup>

## How Fairly Distributed Are Our Resources For Health & Our Health Outcomes?

We instinctively understand that health is shaped by a range of factors, but we tend to overestimate the contribution of the health care system. The Canadian Medical Association estimates that only about 25% of our health can be attributed to clinical care (see Figure Two).<sup>8</sup> There is growing recognition that the circumstances in which we live, the places where we spend our time, and the social networks to which we belong have much greater impact.

**FIGURE 2**  
What Contributes to Health?  
(Adapted from the Canadian Medical Association, 2013)



## Resources for Health

Many of the resources we need to be healthy are not distributed fairly between communities or across social groups. It is as if resources for health – such as financial security, social inclusion and safe environments – were on a supply grid or network that not everyone can access. This helps us think differently about what is needed to improve the health of the population. Some examples of key resources for health that are not available to everyone include food security and a childhood free of toxic stress.

**FIGURE 3**  
Prevalence of Household Food Insecurity in Alberta  
(Household Food Insecurity in Alberta, 2017)





- **Food Security:** One in ten households across Alberta experience at least marginal food insecurity, (see Figure Three) meaning at least one person in the household has inadequate or insecure access to food because of financial constraints.<sup>9</sup> Household food insecurity is linked to important health outcomes such as low birth weight, poor emotional and physical development, and a host of chronic conditions and mood disorders.<sup>9</sup>
- **Adverse Childhood Experiences:** What happens to children in their early years has a profound effect on their life chances and their health as adults. About one in three people in Alberta report being abused during childhood and about one in two experienced family dysfunction.<sup>10</sup> The toxic stress caused by Adverse Childhood Experiences (ACEs) can affect success at school and at work, can lead to maladaptive coping behaviours like drug and alcohol use, and can be linked to 40% to 60% of chronic physical and mental health conditions like obesity, diabetes, and depression.<sup>10</sup>

When we don't create conditions that ensure everyone has fair access to resources for health, we can expect some groups to bear a higher burden of the very conditions that drive up costs to our health care system. And that is exactly what we see.

## Health Equity

Differences in health status between population groups are not unusual. Sometimes they are even to be expected based on age, gender or genetics. Health equity means that all people have the opportunity to reach their full health potential and are not disadvantaged by social, economic or environmental circumstances. When differences in health status reflect a pattern of advantage in one population compared to disadvantage in another, these are health inequities.

Health inequities are systemic, avoidable and unjust and are often created by social and economic policies, practices and environments that create barriers to opportunity. And they show up in different ways:

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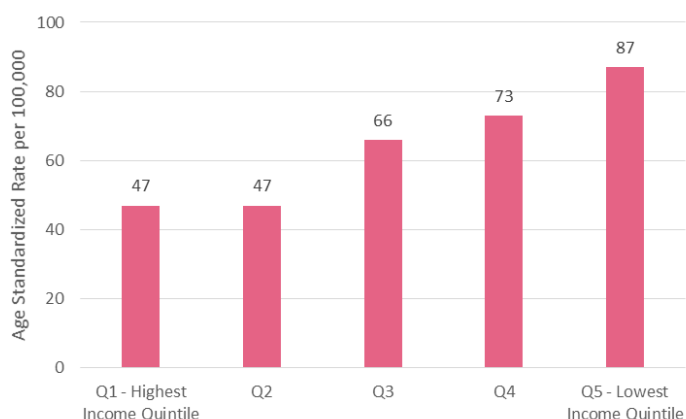
There was a declaration at the World Health Organization that we had to do a better job of embedding health equity within our systems and measuring and monitoring and evaluation, and we have to be pushing towards that.

Core Committee Member

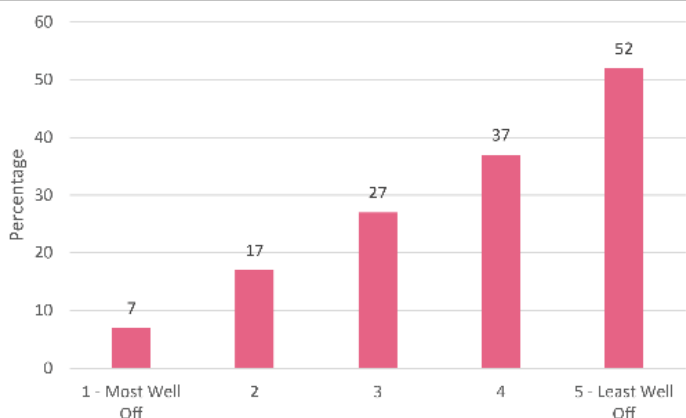


- **Populations:** Most factors that influence health and most health outcomes follow a social gradient, meaning that people who are less advantaged generally have worse health. For instance in Alberta, health inequities exist between the highest and lowest income groups on a host of health outcomes including a four year difference in life expectancy at birth (83.4 versus 79.3 years) and a substantial difference in death rates for cancer (124 per 100,000 compared to 172).<sup>11</sup> Injury mortality (Figure Four) and smoking rates (Figure Five) follow a similar gradient.

**FIGURE 4**  
Injury Mortality by  
Income Quintiles  
(Age Standardized Rate  
Per 100,000, 2016, Alberta)



**FIGURE 5**  
Percentage of Daily or  
Occasional Smokers by  
Canadian Deprivation Index  
(2014-2018, Alberta)



- **Places:** Wide disparities in health outcomes and factors that influence health also exist between communities across Alberta. For instance, the age-adjusted prevalence of diabetes varies six-fold, from roughly 3 to 18 per 1,000 people aged one year and older.<sup>13</sup> Mental health differs too, with levels of stress varying by as much as 40% between neighbouring communities.<sup>12</sup> In terms of social cohesion, the percentage of people who think they can trust their neighbours can vary by up to 60% across communities.<sup>12</sup>

Overall, we have fallen short of ensuring everyone in Alberta has the opportunity and optimal conditions needed to be healthy. Let's see how this might be impacting the sustainability of our health care system.

## How Sustainable Is Our Health Care System?

The Alberta Government spends more than \$20 billion annually on health care, accounting for about 42% of its operating budget.<sup>14</sup> Over the past decade, health care spending increased faster than government revenue.<sup>14</sup> Our population is aging: by 2034, the number of seniors (65+ years) in Alberta is expected to exceed the number of children (0-14 years).<sup>15</sup> Without an enhanced focus on keeping people in Alberta well, demands on the system will only increase.

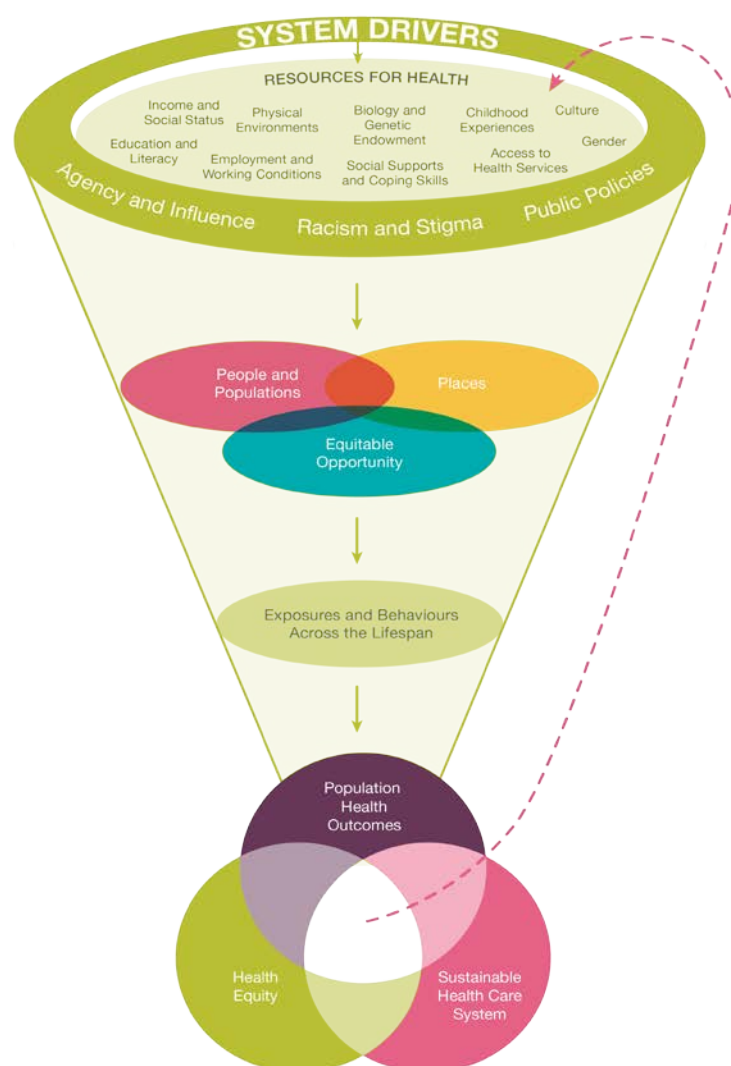
The extent to which everyone can access the resources they need to stay healthy will also influence health system sustainability. For instance, the average cost of an Emergency Department visit is 43% more for homeless persons in Alberta.<sup>16</sup> Their average inpatient stay is 17% more costly due to longer stays.<sup>17,18</sup> The Public Health Agency of Canada (2016) reports that socioeconomic health inequalities place a direct economic burden on the health care system of at least \$6.2 billion annually and that Canadians in the lowest income quintile account for 60% (\$3.7 billion) of the total direct economic burden.<sup>19</sup>

A focus on population health could help improve health outcomes for the whole population, advance health equity, and lead to a more sustainable health care system in Alberta.

## The Population Health Model

As noted above, the health of people in Alberta is determined by complex factors. These factors contribute singly and collectively to influence how healthy we are, the quality of our lives, our workforce productivity and the demand on our health care services. The model below is one way to look at the relationship between important factors along the pathway to population health.

**FIGURE 6**  
A Population Health Model for Alberta



This model is still in development and is not a final version.

Having a model like this lets us understand how important it is to work with the many organizations, communities and sectors outside of healthcare that create conditions that can either drive poor health outcomes and spiraling costs or create opportunities for everyone to reach their full health potential. The model also shows the many entry points for effecting change. Let's take a brief look at each of the model's elements.

## System Drivers

System drivers are found at the top of the model around its broadest aspect, indicating the greatest opportunity for creating conditions for everyone to live their healthiest lives. These drivers influence the social, economic and environmental circumstances that play a fundamental role in shaping health outcomes.

System drivers include public policies; individual and collective agency and influence; as well as racism and stigma. Agency refers to the capacity for people and groups to act in ways that shape their experience and their life trajectories. In many ways, system drivers determine the ability of people and communities to make the changes they need in order to enhance their health and overall well-being, free from stigma and racism.

## Resources for Health

Resources that are known to impact health are positioned inside the system drivers, indicating that their levels and their distribution tend to be affected by the system drivers themselves. Resources for health are also known as determinants of health. As identified by the Public Health Agency of Canada (PHAC), the broad range of personal and environmental resources linked to health outcomes includes social supports and coping skills, physical environments, culture and childhood experience to name a few.<sup>20</sup> Resources that relate to people's 'place in society' are also included such as income, education and employment. PHAC calls this last group the social determinants of health.

## People and Populations, Places and Equitable Opportunity

The availability of and access to resources for health tend to be affected by the population groups to which we belong and the places where we live, work, learn and play. The extent to which people in various groups and across various places have equitable opportunity to access resources for health has significant bearing on health equity and population health outcomes more broadly.

- **People and populations:** Groups of people with factors in common often have differential access to resources for health. Examples include new Canadians or people who identify as a sexual or gender minority. People in different populations may also have unique experiences, perspectives or ways of interacting that can also affect their health. Populations may be co-located or may be dispersed across multiple geographies.

- **Places:** Places are the settings where health happens such as communities, schools, workplaces, health services, homes, and the virtual environment. Within our SCN, we are particularly interested in strengthening the alignment between communities and health services as places that can work together better as a seamless system to support health.
- **Equitable Opportunities:** Population health outcomes are better and more fairly distributed when all people, both within and between population groups and places, have access to the resources and conditions that promote health.

## Exposures and Behaviours across the Lifespan

People's exposures and health-related behaviours are affected by the complex interaction of factors depicted in the upstream aspects of the model. For instance, an unfair playing field can be created when system drivers favour certain groups of people and when not everyone has fair access to the resources for health. The chronic stress related to these inequities has a direct effect on people's health across the lifespan. The resulting biological wear and tear puts people at risk for poor health outcomes. For some people, behaviours such as smoking and eating habits become maladaptive coping mechanisms, which can then lead to other health-related outcomes.

In addition, more specific social and environmental exposures can include anything from poor drinking water quality to a history of multi-generational trauma to local social norms related to substance use. These can affect health directly and can be associated with people's own behaviours such as sexual activity, parenting skills, and use of preventive health services, for example.

Exposures and behaviours tend to appear lower down in the pathway. While intervening at this level does not get to the root cause of many health issues, effective interventions can exist to minimize the impact of existing exposures and behaviours on longer-term health outcomes.

## Population Health Outcomes, Healthy Equity and Health System Sustainability

Many of the diseases, injuries and mental health conditions that are beginning to overwhelm our treatment system arise from the complex array of social and behavioural factors determined mainly by sectors beyond health. These largely avoidable factors are costly to the health care system. A recent estimation is that 15% of Alberta's annual health system costs are related to social inequities and a further 22% are linked to smoking, physical inactivity, alcohol and eating habits.<sup>21, 22</sup>

To achieve the AHS Vision, we have to recognize that in large part it is system drivers that determine whether people can access the resources they need for health. The availability of these resources tend to depend on the populations to which people belong and the characteristics of the places where they live, work, learn and play. Having access to the resources for health is linked, in turn, to the likelihood of people having exposures or developing behaviours that drive differences in health outcomes between groups.

Using this model as a guide, we can better coordinate services across the care continuum to connect people to the social supports and services they need in their communities. And we can work with communities and other partners to help ensure all people in Alberta have access to the resources they need to be healthy and all communities are resilient to acute and chronic public health threats.

## Circling Back

The model is ultimately a system showing the connection between key population health outcomes and the system drivers and resources for health. Healthier people tend to be more productive and less likely to miss work, thereby contributing more to the formal and informal economy. When population health outcomes are better, people and communities have greater ability to secure resources needed for health such as education, employment, social networks, and more capacity to invest in creating healthy places. In addition, when we are spending less on curative health services as individuals and as a province, we can spend more on creating resources for health.

## The Population Health Approach

The population health approach is a framework for taking action to maintain and improve the health status of the entire population and reduce inequities in health status between population groups.<sup>22</sup> It is distinguished by the use of data and community insights to identify population health priorities, an overarching interest in advancing health equity between groups, and a consideration for the entire range of factors and conditions known to influence health and result in health equity. The population health approach acknowledges that most of the explanation for why some people are healthy while others are not is because not everyone has fair access to these important factors.

### What Does It Look Like When We Are Taking a Population Health Approach?

Key elements of the population health approach are shown in Figure Seven.<sup>23</sup>

Essential features of this approach include the following:

- Focusing on health and wellbeing rather than illness and injury
- Taking a population orientation rather than an individual one
- Addressing upstream determinants of health
- Understanding needs and solutions through population level data, community engagement, and inter-sectoral partnerships and action.

**FIGURE 7**  
Key Elements of a Population Health Approach



Applying multiple interventions and strategies is another defining feature of the population health approach. Appreciating that good health is created through multiple factors and in multiple settings, no single strategy is likely to be effective on its own. Complementary strategies are often drawn from across all five action areas of the Ottawa Charter for Health Promotion: develop personal skills; create supportive environments, build healthy public policy, strengthen community action, and re-orient health services.<sup>24</sup>



The population health approach makes a point of identifying health inequities routinely and addressing them systematically. A concerted effort is also made to evaluate the impact of interventions and ensure there are no unintended consequences that inadvertently increase the gap between people with advantage and those without.

## How Does a Focus on Population Health Align with Alberta Priorities?

High performing health systems around the world are taking a more active role in promoting health and advancing health equity in order to improve health outcomes for the whole population and reduce costs of health care.<sup>25</sup>

**Alberta Health Vision** - Population and public health underlies Alberta Health's vision of 'Healthy Albertans in a Healthy Alberta'. As it sets policy to realize a sustainable and accountable health system that promotes and protects the health of Albertans, Alberta Health can advance measures that put better health in reach for everyone in the province.

**Alberta Health Services Vision** - Achieving the AHS vision of 'Healthy Albertans. Healthy Communities. Together' requires a new focus on shaping the places where people spend their time and the circumstances in which they live.

AHS has adopted a Quadruple Aim strategy, an approach widely accepted as the best way to optimize health system performance. It simultaneously balances focus across the following four areas:

- Improving patient and family experience
- Improving the experience and safety of our people
- Strengthening financial health and value for money
- Improving patient and population health outcomes

During its first 10 years, AHS developed focused strategies and made tremendous gains in the first three areas and in improving patient health outcomes. The Population and Public Health Transformational Roadmap will provide direction and galvanized action to support AHS in successfully improving population health outcomes as well. It will do this by engaging in partnerships that help create conditions for health, thereby reducing demand on the high quality and accessible treatment services for which AHS is known

**Strategic Clinical Network Roadmap** - Alberta's Strategic Clinical Networks (SCN) Roadmap for 2019-2024 identifies seven areas of focus for all SCNs to align efforts around including, "Promoting wellness, and prevention and population health". Our Population and Public Health Transformational Roadmap will enable all SCNs to keep a consistent and coordinated focus on population health and work as a united team in supporting communities to create the conditions for better health and care for every person in Alberta.

## The Population, Public and Indigenous Health Strategic Clinical Network

The Population, Public and Indigenous Health (PPIH) Strategic Clinical Network (SCN) was launched in 2016 and is part of a family of sixteen SCNs. Alberta Health Services' SCNs are province-wide networks of people who are passionate and knowledgeable about specific areas of health. They find new ways to improve the health of people in Alberta by bringing together people, research and innovation. They are structured to enable stakeholder collaboration across sector and institutional boundaries, and they provide a forum for working toward common goals. They play a valuable role in the health system by testing and implementing innovative solutions to a range of complex health system challenges.

The Population, Public and Indigenous Health SCN works with partners to improve the health of all people in Alberta by focusing on upstream efforts and health equity, supporting communities to take coordinated action, and transforming health service delivery to address discrimination and focus on determinants of health and prevention. With such a broad and substantial mandate, our work is coordinated and guided by two core committees: the Population and Public Health Core Committee and the Indigenous Health Core Committee. The two committees function autonomously and as allies, watchful for opportunities to contribute to each other's work. (The Indigenous Health Transformational Roadmap can be found at <https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-ppih-ih-roadmap.pdf>).

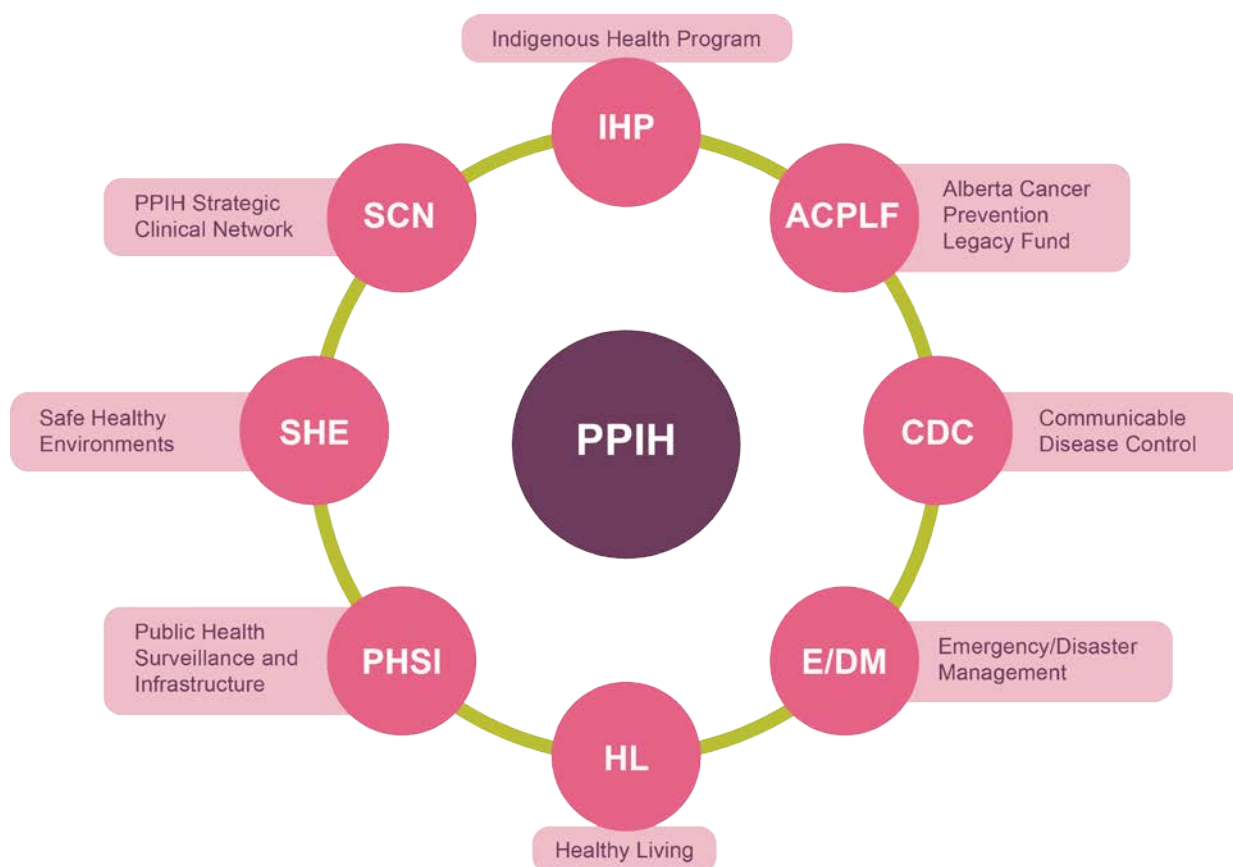
The Population and Public Health Core Committee includes experts and people committed to creating conditions for health from universities, provincial non-profit organizations, professional associations, primary care, provincial and federal government departments, and AHS Zones as well as AHS patient advisors, Medical Officers of Health, and the provincial programs of Population, Public and Indigenous Health and Primary Health Care (see membership list in the Appendix).

The other fifteen SCNs each focus on an important health condition (e.g. cancer), a sub-population (e.g. seniors), or a service delivery area (e.g. surgery). Details on the complete family of sixteen Strategic Clinical Networks can be found at [www.ahs.ca/scn](http://www.ahs.ca/scn). The PPIH SCN is naturally connected with all of the other SCNs because of a shared mandate to promote health equity, prevent illness and support people in Alberta to stay healthy and independent for longer.

## Connection to Population, Public and Indigenous Health Provincial Program

Within AHS, the PPIH SCN is embedded in the provincial program of Population, Public and Indigenous Health (PPIH). PPIH's mission is to work collaboratively with partners in the health system and with other jurisdictions to respond effectively to the public health needs of people in Alberta and address determinants of individual and community health and well-being. This mission is accomplished in partnership with AHS Zone public health programs and through the work of eight divisions with a range of responsibilities for core public health functions in addition to Indigenous Health (see Figure Eight).

**FIGURE 8**  
PPIH Divisions

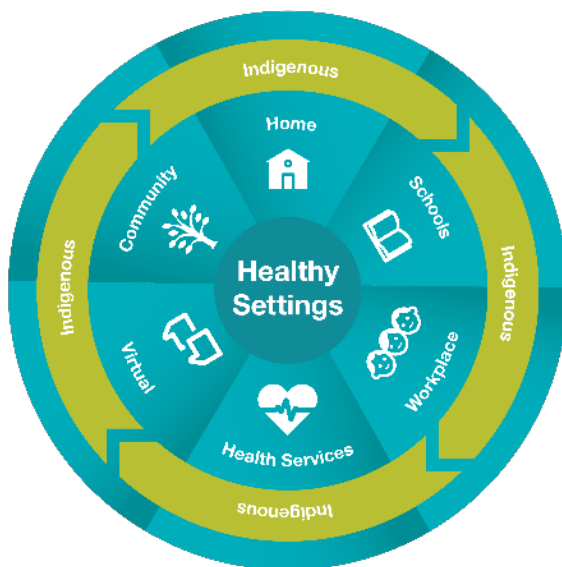


While PPIH and Zone public health partners have long delivered programs and services in specific settings, efforts are underway to better coordinate our action to take a deliberate population health approach across a number of places where health

happens: schools, workplaces, communities, health services, homes and virtual environments, as indicated in Figure Nine.

Positioning the PPIH SCN within the broader PPIH provincial program offers distinct advantages. Given the role of the SCN in testing and implementing innovative solutions, the PPIH SCN is able to work with the provincial programs and Zones to identify pressing population and public health issues, collaborate on workable solutions, and test innovative approaches. Once proven successful, the provincial program offers an ideal vehicle for working with Zone public health and other partners to sustain successful initiatives.

**FIGURE 9**  
PPIH Healthy Settings



This model is still in development

PPIH and AHS Zone population and public health partners have identified five strategic directions to improve population health in Alberta:

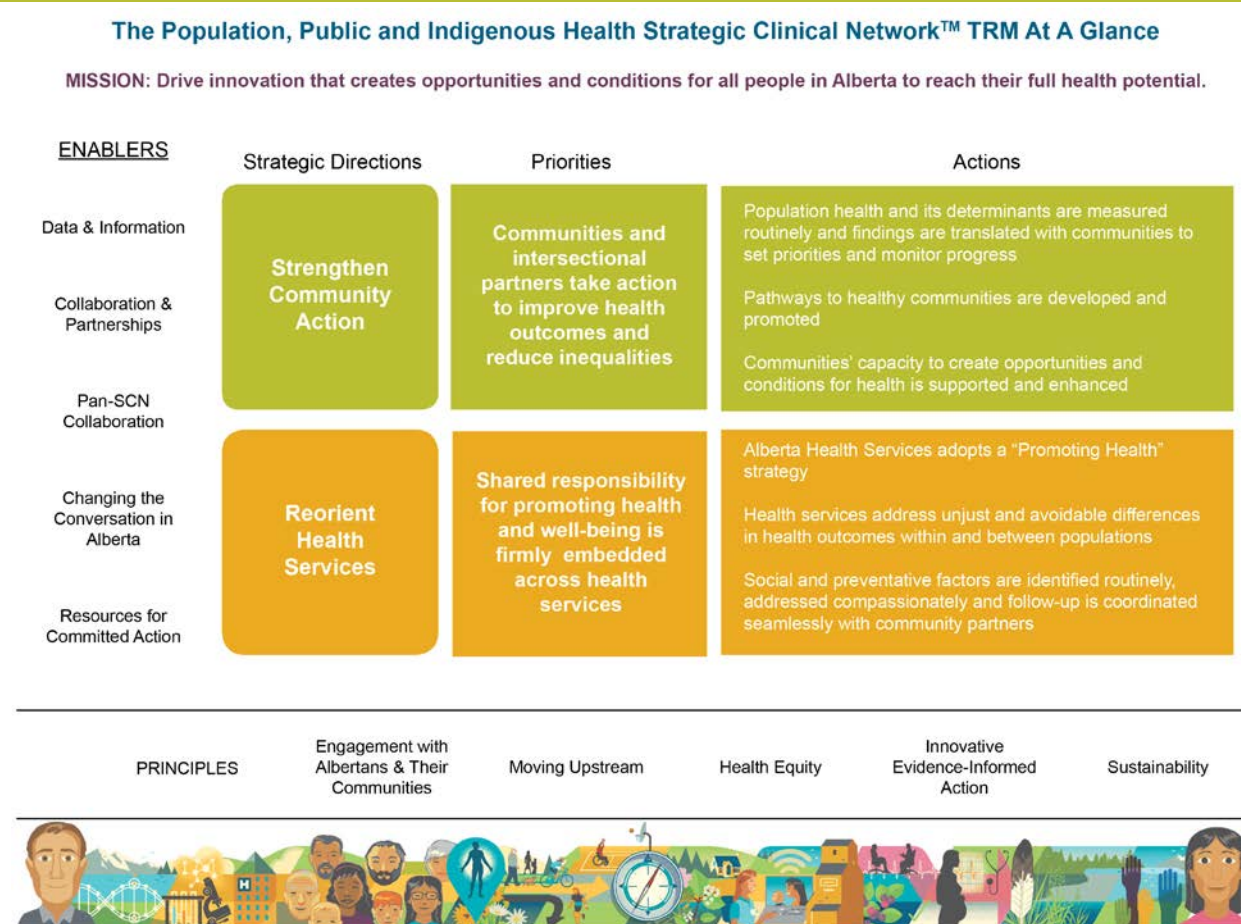
1. Advance health equity
2. Reduce the gap in health outcomes in Indigenous communities
3. Support the development of healthy and resilient communities
4. Support the use of the population health approach in primary care and the broader health system
5. Promote health and safety with children, youth and families

These strategic directions have influenced the development of the Population and Public Health Transformational Roadmap for the SCN. Advancing health equity is a mutual focus. The strategic directions also flag the importance of two major settings for health: 1) communities; and 2) primary care and the broader health system. The PPIH SCN transformational roadmap supports the work of the provincial program and Zone public health by focusing on the interface between health equity and these two settings: communities and health services.

# The Population and Public Health Transformational Roadmap

We have developed an ambitious roadmap that leverages the promise of the population health approach and delivers on the Quadruple Aim imperative of improved population health outcomes. Our roadmap is influenced by our Core Committee's early and enduring conversations concerning three crucial realities: 1) health is driven by factors that are mostly outside the scope of the health care system; 2) not everyone in Alberta has fair access to the factors that determine health; and 3) we are missing opportunities for shared action between the health care system, public health and communities to address underlying social and preventive needs of patients and to create conditions for health both inside the health system and in local communities. Simply put, we identified a role for the PPIH SCN in communities and in health care settings and perhaps most importantly, in bridging the gap between them. Figure Ten provides an overview of our transformational roadmap.

**FIGURE 10**  
Summary of the Population & Public Health Strategic Clinical Network Transformational Roadmap



## Our Vision

Our vision is Alberta Health Service's vision:

Healthy Albertans.  
Healthy Communities.  
**Together.**

## Our Mission

Our mission is inspired by the SCNs' ability to advance innovation and by our desire to ensure health is within reach for all people in Alberta:

**Drive innovation that creates opportunities and conditions for all people in Alberta to reach their full health potential**

## Principles and Enablers

The mission, strategic directions, priorities and actions of the Population and Public Health Transformational Roadmap are grounded in a set of principles and are reinforced by important enablers. Principles are foundational concepts that keep our projects and activities connected to the population health approach and to our strategic directions. Enablers are resources and connections that are required for success. The actions we have identified are based on our principles and depend on our enablers.

Our principles and enablers reflect the spirit and practice of the population health approach. They demonstrate our aspiration to engage communities and people in Alberta and health sector partners in improving the opportunities for everyone to be as healthy as possible.

### Principles

- Engagement with people in Alberta and their communities
- Moving upstream
- Health equity
- Innovative, evidence-informed action
- Sustainability

### Enablers

- Data and information
- Collaboration and partnerships
- Pan-SCN collaboration
- Changing the conversation in Alberta
- Resources for committed action



## Strategic Directions

The core committee identified two strategic directions for the 2020-2023 period that it considers priorities for supporting our mission in the near and longer term: Strengthening Community Action and Reorienting Health Services. These strategic directions also align closely with a major AHS initiative called Enhancing Care in the Community (<https://www.albertahealthservices.ca/about/Page13457.aspx>). Enhancing Care in the Community aims to meet the health and social needs of Albertans to improve their wellbeing, independence and quality of life.

The strategic directions in our Population and Public Health Transformational Roadmap are two of the five action areas of the Ottawa Charter for Health Promotion. Strengthening Community Action respects communities as a reservoir of untapped talent and ambition for changing the circumstances that impact health and health equity across Alberta. Reorienting Health Services reflects the unique opportunity to engage our pan-SCN partners across the health system with mutual interest in promoting health and addressing health equity. We plan to incorporate the other three action areas from the Ottawa Charter into our work in both of these settings (i.e. developing personal skills, creating supportive environments and building healthy public policy).

### 1 STRATEGIC DIRECTION Strengthen Community Action

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Whether people can access the resources they need to be healthy often depends on the communities in which they live. Consequently, many of the solutions for ensuring optimal health for everyone lie within communities. We recognize the expertise and experience already present in Alberta's diverse communities and we respect that communities themselves guide their vision for the future. A healthy communities approach is a framework used around the world to support communities to take action in the areas that matter most to them. Through multi-sectoral partnerships and inclusive engagement, the community brings its voice to defining issues, generating solutions, taking action and evaluating impact. The strategic direction of strengthening community action and the resulting priority reflects the need to form partnerships and the opportunity to work together across boundaries with and in communities.

#### Priority

*Communities and inter-sectoral partners take action to improve health outcomes and reduce inequities.*

Much the same way the health system develops clinical pathways to improve quality of care and optimize health outcomes for specific groups of patients, communities can develop pathways to better health outcomes for the whole community. Addressing health inequities and other community health priorities can be accomplished by working with communities to engage a diverse group of community champions and connect them with people from the sectors that impact health. Using an existing suite of tools already tailored to the Alberta context, they can develop an understanding of their local strengths, needs and opportunities. They can agree on their priorities and develop an



action plan, guided by the evidence in strategy kits of what works. And as they evaluate their outcomes, they can share their findings and get inspired by other communities through an online hub.

## Actions

For the strategic direction of strengthening community action, we identified these actions:

<b>Measurements</b>	<b>Population health and its determinants are measured routinely and its findings are translated with communities to set priorities and monitor progress</b>
<b>Pathways</b>	Pathways to healthy communities are developed and promoted
<b>Capacity</b>	Communities' capacity to create conditions and opportunities for health is supported and enhanced

## Expected Outcomes

Indicators and measurement strategies are currently in development.

### SCN PROJECT SNAPSHOT

#### Making Health Equity Data Accessible

In developing a pathway to a healthy community that closes unfair and avoidable gaps in health outcomes between groups, communities need local health equity data. We are leveraging existing resources, using a range of health equity-related data and making it available to communities in ways that support them to take action.

In collaboration with the Alberta Cancer Prevention Legacy Fund (ACPLF), a health equity page on the Alberta Community Health Dashboard has been launched. For each one of the 136 local geographic areas across Alberta, the page includes data on eight risk factors related to cancer and chronic conditions broken down by six socioeconomic factors.

The health equity page of the dashboard is just the first step for making health equity data more accessible to communities. We will enhance the data available on the website with new information generated through the Reducing the Impact of Financial Strain project. We will also include enhanced solutions to support communities in interpreting and applying their data.

Communities will be able to identify local health inequities, incorporate actions to address them, and contribute to reducing health inequities between groups locally.

## 2 STRATEGIC DIRECTION Reorienting Health Services

The concept of reorienting health services envisions a future where health care facilities play a key role with community partners in addressing local population health needs as well as immediate medical needs. A reoriented health system fosters continuity of care and seamless transitions for everyone in Alberta, viewing community services as part of a continuum with health services. It maximizes the opportunity for a patient's range of strengths, needs and experiences to be taken into account, no matter where they enter the system, and it generates a care plan that reflects the reality of their circumstances. It means the system pays attention to what people and communities need in order to be healthy and stay healthy, and the system contributes to creating those conditions.

### Priority

Shared responsibility for promoting health and well-being is firmly embedded across health services.

How can we accomplish this priority? We envision a trio of steps: creating organization-wide support for promoting health and well-being; supporting AHS Zone health services in engaging communities to share knowledge and expertise to address and reduce health inequities; and fostering connections between AHS Zones, provincial programs, and a wide range of community partners and voluntary organizations to strategically co-design and support healthy communities that help keep people well.

### Actions

For the strategic direction of reorienting health services, we identified these actions:

<b>Adopt</b>	<b>Alberta Health Services adopts a “Healthier Together – Health Services” strategy</b>
<b>Address</b>	Health services address unjust and avoidable differences in health outcomes within and between populations
<b>Identify</b>	Social and preventive factors are identified routinely, addressed compassionately and follow-up is coordinated seamlessly with community partners.

### Expected Outcomes

Indicators and measurement strategies are currently in development.

#### SCN PROJECT SNAPSHOT

### Embedding Action on the Social Determinants of Health through Connect Care

In understanding that only 25% of health is attributable to health care services, it has become increasingly important to support health care providers in identifying and addressing the other factors that contribute to health. Factors such as housing, food security and social support can have more impact on patient outcomes than the medical care we deliver. If we can support providers to compassionately screen for determinants of health, provide brief evidence-based interventions, and seamlessly connect patients to community resources we will be well on our way to providing a more impactful and cost-effective approach to care.

We are working actively with partners to embed screening and referral capacity for social and preventative factors into patient health records in the new provincial electronic medical record system, Connect Care. Where Connect Care has gone live, AHS health care teams are now able to capture data for issues such as financial strain and domestic violence. They are also able to provide appropriate referrals and/or links to community resources with ease.

The SCN will champion the implementation of this innovation, working in partnership with AHS Zones and community providers to develop an evidence-based model that enables providers to ask these sensitive questions in caring and compassionate ways, and to monitor and evaluate impact on patients, providers and the health system. The sociodemographic data captured will provide an opportunity to start predicting which patients require more support before being discharged or which ones might benefit from more active outreach in order to avoid re-hospitalization. Rich data of this nature will also let us evaluate the degree to which our services and outcomes are equitable.

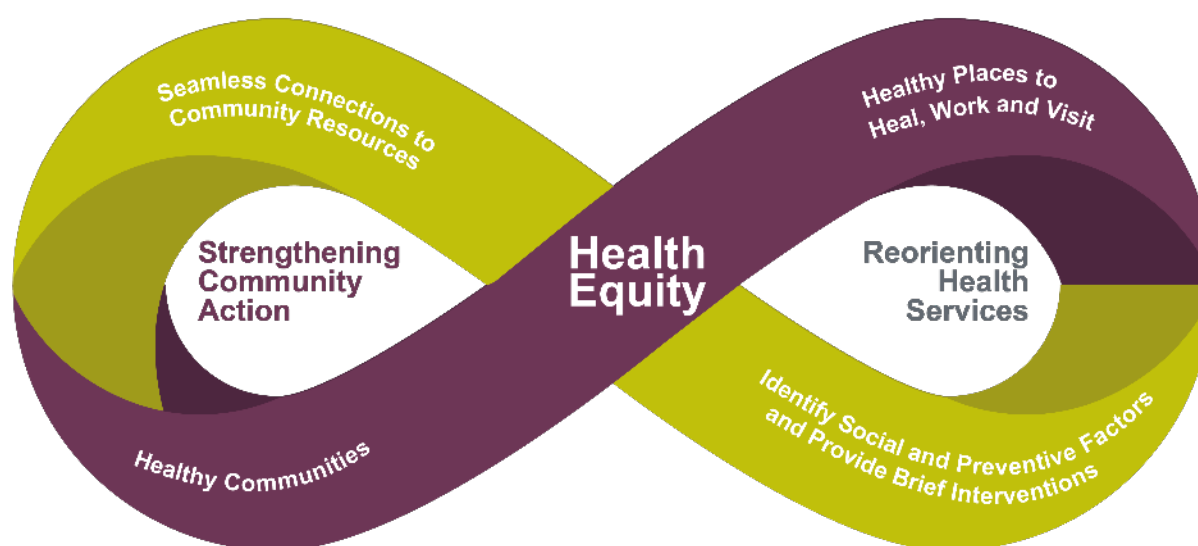
The intended outcome is that AHS patients receive care that reflects their circumstances and resources for health and when needed, they will be connected seamlessly through warm handoffs to a broader community of services and supports. Patient lengths of stay and readmission rates are expected to decline.

## Linkage Between the Strategic Directions

Figure Eleven shows how our two strategic directions are inextricably linked. Reorienting health services includes a renewed patient and client-centered focus on identifying and briefly intervening on the social and behavioural factors underpinning so many health conditions that require care. With seamless, integrated care pathways in place, patients and their families are linked to community resources with a focus on keeping people healthy, connected and optimally supported in their homes. At the same time, health service facilities actively participate with intersectoral partners in neighbouring communities to create conditions and opportunities for everyone to reach their full health potential. And finally, the healthy settings approach is adapted to health services to ensure our facilities are healthy places for every patient, visitor, staff and volunteer.

**FIGURE 11**

The Population and Public Health Transformational Roadmap – Linkage Between Strategic Directions  
(Adapted from the Institute for Healthcare Improvement (2017). Pathways to Population Health. An Invitation to Health Care Change Agents. Boston, MA: IHI)



## SCN PROJECT SNAPSHOT

### Reducing the Impact of Financial Strain

The Reducing the Impact of Financial Strain (RIFS) project brings to life the whole new way that health services partners and communities can work together, as described in Figure Eleven, on an issue that profoundly affects patient outcomes and population health. Income is one of the most powerful determinants of health and intervening can have a significant impact on health outcomes and total health care utilization.<sup>26,27,28</sup> Yet, it is not easy for health care teams to know which patients are struggling to make ends meet. The College of Family Physicians of Canada believes that family physicians are often best-situated to play a role in improving social determinants at both the patient and population levels.<sup>29</sup> This includes regularly screening all patients for poverty and intervening where necessary.

The Alberta College of Family Physicians' has endorsed an Alberta-specific version of a clinical poverty assessment tool for primary care providers.<sup>30</sup> The tool uses a simple verified question with 98% sensitivity and 40% specificity for detecting those living below the poverty line: "Do you ever have difficulty making ends meet at the end of the month?" Interviews with family physicians have revealed barriers to taking this approach that include feeling they don't have the skills to inquire about a patient's economic circumstances, or feeling powerless to intervene, among others.<sup>29</sup>

Through a groundbreaking, scalable collaboration between population and public health, primary care, local communities and the Alberta Medical Association, the RIFS project is supporting primary care clinicians and their community partners to overcome barriers to identifying people with financial strain and taking action, particularly in the areas of cancer and chronic disease. The project is tailoring clinical workflows and building capacity with primary care providers in four communities to screen for and respond to financial concerns among patients. Brief interventions can include customized clinical choices such as confirming cost and affordability of prescriptions and encouraging patients to submit tax returns to access income benefits. (Tax filing in Alberta can unlock up to \$8,000 per year in additional income for a low-income single parent, and at least \$1,200 per month for a senior living in poverty).<sup>30</sup>

Just like the flow in Figure Eleven, the RIFS project is a true partnership with community agencies, with seamless connections being built that enable primary care to arrange warm handoffs to a range of existing community resources. These include anything from health promotion services that serve low-income individuals or families, to groups that provide assistance with completing tax returns, to help with transportation to get there. Continuing through the Figure Eleven pathway, participating RIFS clinics are working with local community partners and people with lived experience to build community coalitions, identify community strengths / issues / gaps, and then work together to co-design upstream solutions that build conditions that can better support people in the community with financial strain. At the end of the day, these clinics and their communities become better able to promote health for everyone.

The RIFS project is creating sustainable multi-sector partnerships between primary care, community partners and population and public health and is building the foundation for this collaborative approach to spread across the province to improve population health outcomes.

## SCN PROJECT SNAPSHOT

### Pan-SCN Prevention Project

Alberta currently has the second highest smoking prevalence in the country<sup>31</sup> and the highest per capita consumption level for alcohol (9.3L per capita sales).<sup>32</sup> These are key drivers of poor health outcomes and health care spending, but there is good evidence of impact and cost savings when health care providers screen for these behaviours, offer brief interventions and arrange community referrals.<sup>33,34,35</sup>

From 2000 to 2017, smoking prevalence decreased very slowly in Alberta compared to most provinces. For example, while smoking prevalence in Ontario and Alberta were similar in 2000 (22.6% versus 23.1%), by 2017 the smoking prevalence in Ontario had declined to 12.9% but only to 18.9% in Alberta.<sup>31</sup> Between 2004 and 2013 alone, Ontario estimated that their reduction in smoking prevalence accounted for \$4.1 billion in health care savings.<sup>22</sup>

Building on evidence-informed best practices already operating with proven success in many Canadian provinces (e.g., Ottawa Model for Smoking Cessation)<sup>33</sup> and other jurisdictions (e.g., National Health System, UK),<sup>34</sup> the PPIH SCN is partnering with multiple SCNs to co-design opportunities to embed prevention pathways for commercial tobacco use and alcohol misuse within their existing clinical workflows in Connect Care. Previous AHS projects have demonstrated the feasibility of these approaches in Alberta (e.g., Alberta Cancer Prevention Legacy Fund and Cancer Control Alberta, Tobacco Reduction Program and 30+ facilities that implemented Tobacco Free Futures). The PPIH SCN is positioned to help scale and spread this intervention with other SCNs, provincial programs, and AHS Zone and community-based operational partners using the capabilities of Connect Care.

Expected impacts include reducing Alberta's rates of commercial tobacco use and alcohol misuse, and improving the awareness and utilization of prevention and promotion supports available within Alberta. Using smoking as an example, the Ottawa Model for Smoking Cessation has shown that establishing these prevention and promotion models have led to significant short- and long-term health improvements, increased life expectancy, improvements in quality of life (QOL) and lower health care expenditures including significant reductions in 30-day, 1-year and 2-year health care utilization (e.g., ED visits, hospital admissions), specifically for costly acute-care services and shorter lengths of stay.<sup>33,35</sup> This Pan-SCN Prevention Project will deliver significant positive impacts in all four areas of AHS' quadruple aim approach with particular focus on improving population health outcomes and financial health and value for money.

## PPIH SCN Scientific Office

The Scientific Office is embedded within the broader AHS' Population, Public and Indigenous Health provincial program to ensure research and innovation is optimally leveraged to achieve meaningful improvements in population health outcomes for all people in Alberta. Embedding scientific principles and approaches within the SCN and broader provincial program is a key strategy to support integrated knowledge translation and increase impact. This strategic alignment allows for collaborative evidence-based identification of issues, developing innovative solutions, implementing sustainable programs and evaluating collective impact. The PPIH SCN's strategic directions, as outlined above, guide every aspect of activity within the Scientific Office to help ensure all people in Alberta benefit from the activities of the PPIH SCN.

Currently SCN Scientific Offices are responsible for 6 pillars of activity in relation to SCNs. These pillars of activity are: 1) Advancing Research Knowledge; 2) Engaging and Building Partnerships for Research and Innovation; 3) Knowledge Translation; 4) Research Prioritization; 5) Research Capacity Building and Training and 6) Research Facilitation. The PPIH Scientific Office takes deliberate steps for meaningful impact across all of the above six pillars.

More specifically, the role of the PPIH Scientific Office is to:

1. Support and inform pan-SCN projects to improve health outcomes for all people in Alberta.
2. Promote and support evidence-informed decision making within the PPIH SCN.
3. Identify inequities and design, implement and evaluate innovative, scalable population health initiatives that reduce unjust and avoidable differences in health outcomes.
4. Facilitate the translation and mobilization of knowledge generated through PPIH research so that it can be of value to inform decision-making by leadership, policy makers and clinicians within AHS and beyond.
5. Leverage the Scientific Office's position within the provincial Population, Public and Indigenous Health portfolio- to partner and plan upfront with stakeholders to support transition of projects into sustainable operations.
6. Leverage strategic partnerships and collaborations internal and external to AHS to advance knowledge in PPIH SCN priority areas.
7. Enhance PPIH research presence and culture in Alberta, including:
  - a) Engaging academics in PPIH SCN research priorities by encouraging & facilitating integrated knowledge translation.
  - b) Partnering and collaborating with existing research institutes / networks working in the areas of PPIH research, such as the O'Brien Institute of Public Health at the University of Calgary and the School of Public Health at the University of Alberta.



8. Build research capacity within the PPIH research community including students, clinicians, researchers and community members to do research that aligns with the priority areas of the PPIH SCN.
9. Build collaborations and partnerships with other SCNs to further the PPIH research strategy in the province and identify pan-SCN research opportunities.

## Conclusion

The Population and Public Health Transformational Roadmap is the product of many hours of thoughtful reflection and conversations among core committee members and the many contributors to the SCN's work. It reflects our commitment to improving health for everyone in Alberta through a population health approach. We recognize that not everyone in Alberta has access to the resources they need to be healthy and we are promoting strategies and action to ensure everyone has the opportunities and conditions to reach their full health potential. Through partnerships across Alberta Health Services, Alberta Health, academic institutions and with a broad array of external partners, we have the opportunity to build a sustainable health system that supports communities to thrive and people in Alberta to flourish.

We invite you to join us in this opportunity. Visit the Strategic Clinical Networks' website at [www.ahs.ca/scn](http://www.ahs.ca/scn) to find out how.

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# Appendices

## Appendix One: A Population Health Top Ten

Throughout this transformational roadmap, we have mentioned core concepts and, in some cases, key resources. For the curious and the inspired, we have assembled a basic top ten resource list related to the population health approach and to the work we have begun. We hope you will explore this list and apply it to your work and your world.

1. The Ottawa Charter for Health Promotion  
<https://www.who.int/healthpromotion/conferences/previous/ottawa/en/>  
<https://albertahealthycommunities.healthiertogether.ca/>
2. The Population Health Approach  
<https://www.canada.ca/en/public-health/services/health-promotion/population-health/population-health-approach.html>
3. The Population Health Template  
<http://www.phac-aspc.gc.ca/ph-sp/pdf/discussion-eng.pdf>
4. Population Health Approach: The Organizing Framework  
<http://cbpp-pcpe.phac-aspc.gc.ca/population-health-approach-organizing-framework/>
5. A Conceptual Framework for Action on the Social Determinants of Health  
[https://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH\\_eng.pdf](https://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf)
6. Let's Talk: Health Equity  
[http://nccdh.ca/images/uploads/Lets\\_Talk\\_Health\\_Equity\\_English.pdf](http://nccdh.ca/images/uploads/Lets_Talk_Health_Equity_English.pdf)
7. Key Health Inequalities in Canada: A National Portrait  
<https://www.canada.ca/en/public-health/services/publications/science-research-data/key-health-inequalities-canada-national-portrait-executive-summary.html>
8. Communities in Action: Pathways to Health Equity  
<http://nationalacademies.org/hmd/Reports/2017/communities-in-action-pathways-to-health-equity.aspx>
9. The Alberta Community Health Dashboard  
<https://www.healthiertogether.ca/prevention-data/alberta-community-health-dashboard/community-cancer-prevention-screening-dashboard/>
10. Alberta Healthy Communities Hub  
<https://albertahealthycommunities.healthiertogether.ca/>

## Appendix Two: Population & Public Health Core Committee Members

<b>Alexander Doroshenko</b> Assistant Professor, Division of Preventive Medicine, Faculty of Medicine and Dentistry, University of Alberta	<b>Jason Cabaj</b> Medical Officer of Health, Calgary Zone, Alberta Health Services
<b>Allan Sinclair</b> Sr. Operating Officer Central & South, Central Zone, Alberta Health Services	<b>Kelly Holbein</b> Public Health Inspector, Environmental Public Health, Alberta Health Services
<b>Andrea Locke</b> eHealth Consultant, Canadian Global Information (CGI) Technology	<b>Lisa McLaughlin</b> Program Manager, Alberta Recreation & Parks
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