

HEALTHY CHILDREN AND FAMILIES STRATEGIC ACTION PLAN

2015-2018

Healthy Children and Families set out to develop a Strategic Action Plan to guide the work of the team over the next three years. Building on the guidance provided by the Government of Alberta and Alberta Health Services, Healthy Children and Families gathered and synthesized evidence to form a foundation for the work we do and to better position us to meet the needs of our population. This will help to ensure that high quality, evidence-based investments in prevention and health promotion contribute to healthy children, families and communities in Alberta.

“It’s time to have a different conversation: a conversation that begins long before we are sick or diagnosed with a disease. A conversation that shifts the dialogue from the delivery of healthcare – to a discussion about our health and wellness. Health as not simply the absence of disease, but as something we build with our families, schools, communities and workplaces, in our parks and playgrounds, the places we live, the air we breathe, the water we drink, and the choices we make”

**Alberta Health (2014). Alberta’s Strategic Approach to Wellness,
p. 4**

For more information, please contact:

Keri-Lynn Strain

Knowledge Translation and
Evaluation
Healthy Children and
Families, Healthy Living
Population, Public and
Aboriginal

Keri-Lynn.Strain@albertahealthservices.ca

Cyne Johnston

Knowledge Translation and
Evaluation
Healthy Children and Families,
Healthy Living
Population, Public and
Aboriginal Health

Cyne.Johnston@albertahealthservices.ca

Maureen Devolin

Healthy Children and Families,
Healthy Living
Population, Public and
Aboriginal Health

Maureen.Devolin@albertahealthservices.ca

TABLE OF CONTENTS

Executive Summary	i
Introduction	1
Background	1
Creating supportive environments to promote maternal, child and youth health	2
Economics of Prevention	3
Disparities and Health Equity	3
Collaboration	4
Healthy Children and Families	5
Why a Strategic Action Plan?	5
Our Strategic Planning Process	6
What Healthy Children and Families Does	7
Our Strategic Priority Areas	9
Strategic Priority Area 1: Sexual and Reproductive Health	10
Strategic Priority Area 2: Healthy Pregnancies and Birth Outcomes	11
Strategic Priority Area 3: Breastfeeding	12
Strategic Priority Area 4: Early Child Development	13
Strategic Priority Area 5: Child and Youth Mental Health	14
Strategic Priority Area 6: Child and Youth Nutrition, Physical Activity, Overweight and Obesity	15
Performance Measurement	16
Looking Forward	16
References	18

EXECUTIVE SUMMARY

HEALTHY CHILDREN AND FAMILIES STRATEGIC ACTION PLAN

Introduction

The Healthy Children and Families (HCF) team set out to develop a Strategic Action Plan to guide the work of the team over the next three years (2015-2018). Building on the guidance provided by the Government of Alberta and Alberta Health Services (AHS), HCF gathered and synthesized evidence to form a foundation for the work we do and to better position us to meet the needs of our population. The strategic action planning will ensure that high quality, evidence-based investments in prevention and health promotion contribute to healthy children, families and communities in Alberta.

The Healthy Children and Families Team

HCF is situated within Healthy Living, Population, Public and Aboriginal Health (PPAH). Three teams develop and deliver initiatives targeting the preconception to 18 years of age population: Reproductive Health (RH), Early Childhood (EC), and Healthy Children and Youth (HCY). A fourth team, Knowledge Translation and Evaluation (KTE), works with these three teams by providing support in program planning, evaluation, and knowledge translation.

Why a Strategic Action Plan?

The HCF Strategic Action Plan provides a strong foundation for the development, implementation and evaluation of effective provincial projects and initiatives within each of the HCF teams. HCF initiatives will be: supported by evidence, aligned with the priorities of key stakeholders, and responsive to the needs of the Alberta population from preconception to 18 years of age. The Strategic Action Plan will support a cohesive approach, and ensure that the RH, EC, HCY, and KTE teams work synergistically towards common goals.

Our Strategic Planning Process

Starting in May of 2014, HCF undertook a systematic process of evidence gathering culminating in this Strategic Action Plan. The KTE team led this work in close consultation with HCF management and Healthy Living leadership. Figure 1 provides a summary of the key steps included in this process. The process allowed for a comprehensive approach to gathering and synthesizing the many information and evidence sources that shape the work of HCF. The strength of this Strategic Action Plan lies in its inclusion of strategic directions provided by our governing and

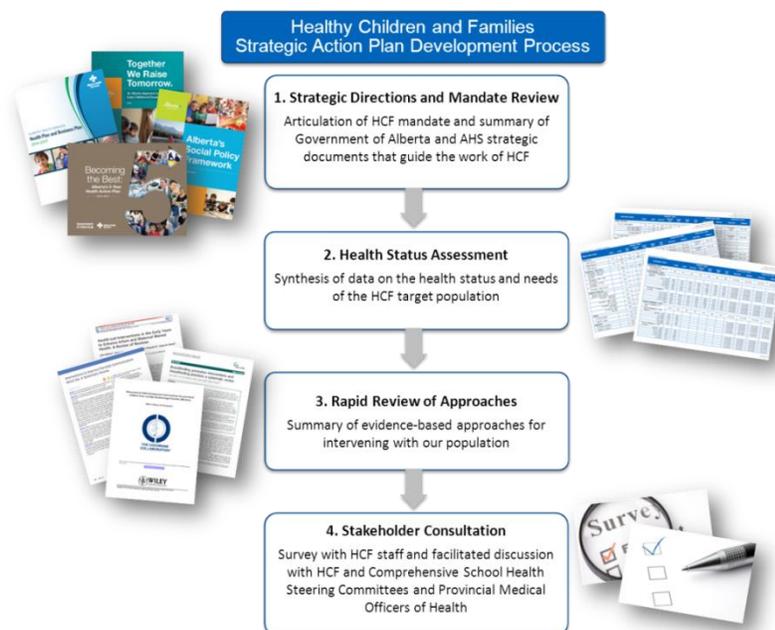
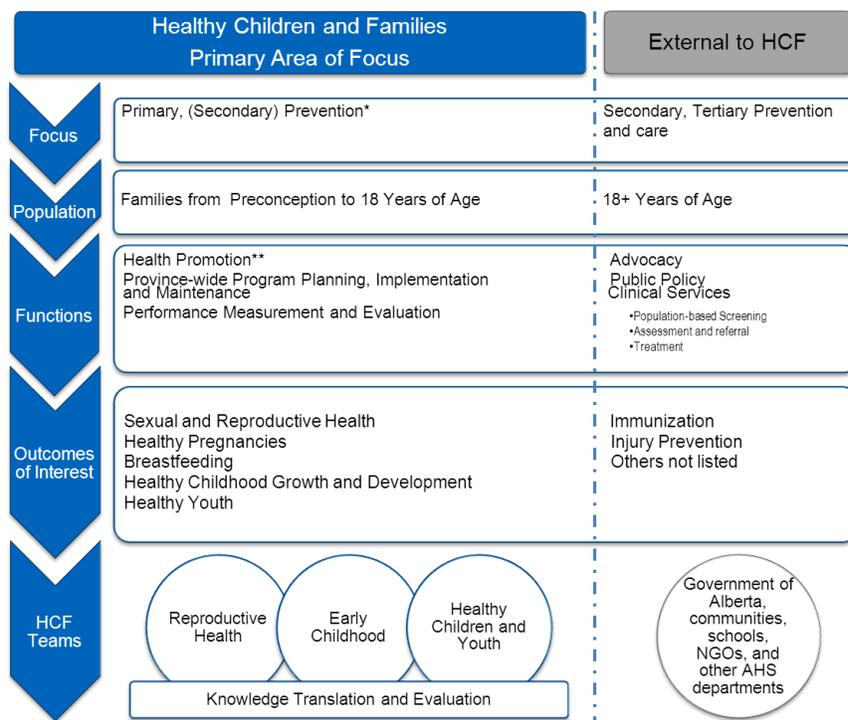


Figure 1. Strategic Action Plan Development Process

funding authorities, data on the health of our population, peer-reviewed literature and contextual knowledge of stakeholders.

What Healthy Children and Families Does

The first step in our Strategic Action Planning Process was to clarify and articulate the mandate and scope of work for HCF. Three key categories were used to summarize the work we do: (1) Population and Focus, (2) Functions, and (3) Outcomes of Interest, as detailed in Figure 2. As there is overlap in these categories between HCF and other departments in AHS, this represents a *guide* for describing the scope of work for HCF. The dotted line in the figure represents the fluidity between HCF and other AHS departments and the opportunity for partnerships and collaboration on overlapping outcomes of interest.



***Primary prevention:**
Preventing the onset of disease by intervening to remove or reduce risk factors.

Secondary prevention:
Detecting and addressing disease in early stages, prior to the presentation of symptoms, to stop or slow its progression.

****Health Promotion Includes:**

- Strengthening community action
- Building healthy public policy
- Creating supportive environments
- Developing personal skills
- Reorienting health services

Figure 2. HCF Mandate and Scope of Work Summary

Our Strategic Priority Areas

Based on the mandate of HCF and assessment of the strategic directions, health needs of the population, and input from key stakeholders, six Strategic Priority Areas for HCF were identified. Each Strategic Priority Area is presented below with the strategic directions, as well as the supporting data from the Health Status Assessment which provides context to the current state of the population for each area (the complete Health Status Assessment report is available upon request and provides extensive data on the health of the population from preconception to 18 years of age). Additionally, evidence-supported approaches for addressing each Strategic Priority Area are provided. The approaches listed will be further examined for their feasibility, appropriateness and potential for impact in our team action planning. Each of the Strategic Priority Areas was vetted and validated by stakeholders (see full report for stakeholder comments).

STRATEGIC PRIORITY AREA 1: SEXUAL AND REPRODUCTIVE HEALTH

Strategic directions we've been given:

- Develop a provincial approach to preconception health
- Support schools to develop curriculum about healthy life choices for reproductive health
- Increase public knowledge and awareness of reproductive health

What we know about our population:

- About 20% of Grade 9/10 students and 44% of those 15-19 in Alberta reported having had sexual intercourse
- 70% of sexually active 15-19 year olds reported that they usually use contraception
- Chlamydia is the most common sexually transmitted infection (STI) for the 12-19 population in Alberta (rate of 1,363 per 100,000)

Evidence-based approaches for consideration:

- Parent education interventions to improve communication about sexual health
- School-based risk reduction sexual health education programs
- Intensive, multicomponent youth development programs

STRATEGIC PRIORITY AREA 2: HEALTHY PREGNANCY AND BIRTH OUTCOMES

Strategic directions we've been given:

- Develop a provincial approach to preconception health
- Address maternal modifiable factors including nutrition, physical activity, healthy weights, age, substance use and mental health
- Develop programs to address low birth weight, small for gestational age and preterm birth
- Develop programs to address maternal anxiety and depression
- Develop programs to build families' awareness, knowledge and skills to better support the mental health of mothers

What we know about our population:

- 42% of Alberta women were overweight or obese prior to becoming pregnant; 52% gained in excess of gestational weight gain guidelines
- The Alberta rate of preterm birth was 9% and 11% in the First Nations population, both above the national average of 8%
- The rate of small for gestational age in Alberta was 11%, above the national rate of 8%
- Infant mortality among Alberta First Nations peoples was extremely high at a rate of 9.7/1,000, more than double the Alberta rate of 4.5/1,000

Evidence-based approaches for consideration:

- Public awareness campaigns
- Direct physician-patient counselling
- Peer support/ group counselling
- Targeted interventions with women with a previous adverse pregnancy outcome
- Targeted interventions for women vulnerable to/ suffering from mental illness
- Intensive, individualized home visits

STRATEGIC PRIORITY AREA 3: BREASTFEEDING

Strategic directions we've been given:

- Develop, pilot and evaluate programs such as the Baby Friendly Initiative (BFI) and peer support programs to improve breastfeeding rates

What we know about our population:

- In Alberta:
 - The breastfeeding initiation rate is 91%
 - 42% of mothers reported breastfeeding duration of greater than six months
 - 26% reported exclusive breastfeeding for six months

Evidence-based approaches for consideration:

- Facility-based interventions such as the BFI or elements of the BFI (e.g., policy, staff training)
- Perinatal education interventions
- Group and individual counselling
- Peer support programs

STRATEGIC PRIORITY AREA 4: EARLY CHILD DEVELOPMENT

Strategic directions we've been given:

- Support implementation of the Early Child Development Priority Initiative by working with schools, service providers, and families
- Develop parenting awareness, education and support programs

What we know about our population:

- 28% of Alberta Children were experiencing difficulties in one or more areas of development, compared to 25% nationally
- 15% of Alberta children were experiencing great difficulties in two or more areas of development, compared to 13% nationally

Evidence-based approaches for consideration:

- Parent education programs with ongoing tailored supports
- Early child development screening to allow for targeted interventions

STRATEGIC PRIORITY AREA 5: CHILD AND YOUTH MENTAL HEALTH

Strategic directions we've been given:

- Address child and youth mental health with a focus on building resilience
- Support schools to improve mental health

What we know about our population:

- 77% of 12-19 year olds in Alberta reported excellent/very good mental health
- 65% to 75% of Alberta students in Grades 6-10 reported they have experienced bullying

Evidence-based approaches for consideration:

- Comprehensive school-based programs
- Targeted mental health promotion/ prevention programs

STRATEGIC PRIORITY AREA 6: CHILD AND YOUTH NUTRITION, PHYSICAL ACTIVITY, OVERWEIGHT AND OBESITY

Strategic directions we've been given:

- Develop and implement programs to prevent/address child and youth overweight and obesity
- Support schools to increase the availability of healthy foods and beverages and increase opportunities for physical activity

What we know about our population:

- Among 12-19 year olds in Alberta:
- 37% reported eating five or more fruits and vegetables per day, below the national rate of 45%
 - 29% were considered inactive, in line with the national rate of 28%.
 - 19% were overweight or obese, slightly below the national rate of 22%

Evidence-based approaches for consideration:

- Interventions to promote healthy eating, such as strengthened school food policies
- Structured sessions for physical activity
- Support and training for teachers

PERFORMANCE MEASUREMENT

Measuring the effectiveness of our work is essential to ensuring that we are meeting and adapting to the needs of our population. A performance measurement framework will be developed for HCF; it will be designed to capture the work done by each of the teams within HCF, and to align with the Quality Management Framework for all of Healthy Living and PPAH.

LOOKING FORWARD

This Strategic Action Plan provides foundational guidance to focus the work of HCF going forward. It also confirms that much of the current work of HCF is well supported by evidence and warrants continued efforts. These findings will now be used to develop detailed three year action plans for each of the teams within HCF. The planned process for Team Action Planning is shown in Figure 3.

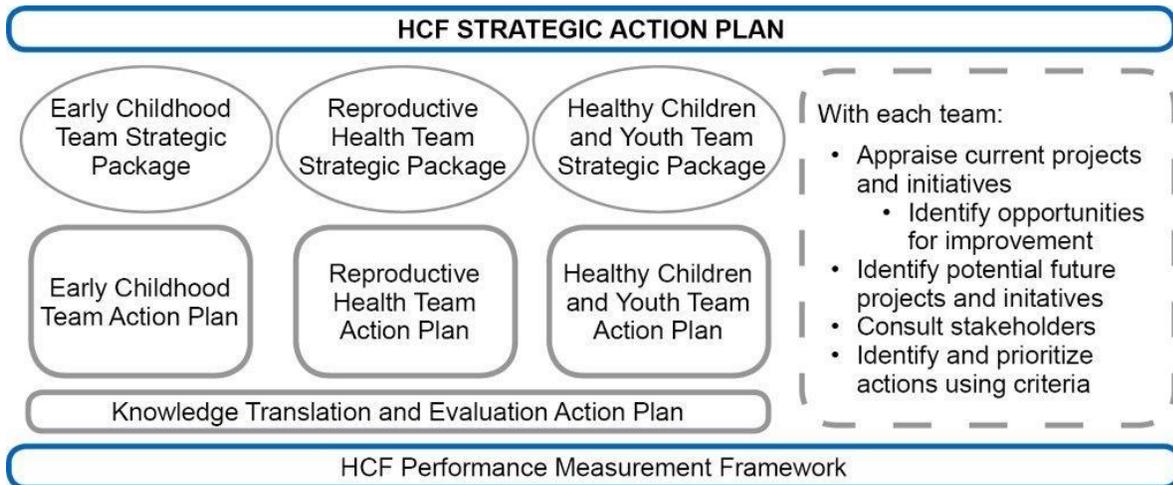


Figure 3. Team-specific Action Planning Process

The Team Action Plans will outline projects and initiatives to be planned and implemented over the next three years. Criteria for population-based interventions will be used to appraise current HCF projects and initiatives, and identify opportunities for improvement. Criteria will also be used to identify and prioritize new projects and initiatives. The Action Plans will be designed to ensure that the areas of need identified in this Strategic Action Plan are addressed, and that HCF contributes to significant improvements in the health of the preconception to 18 years of age population. Stakeholders will be consulted going forward to ensure appropriate prioritization, timing and implementation of future actions.

INTRODUCTION

Background

It is well understood that there are a variety of factors that shape individual health status and population health outcomes; the impact of the social determinants of health cannot be overstated.¹⁻⁶ Addressing the upstream determinants of health is essential to protecting the health of Albertans. This is considered a provincial priority and represents a key area of focus for Alberta Health Services (AHS) health promotion efforts.³

“...our health is largely influenced by whether we have enough money to meet our basic needs, access to safe, affordable housing, meaningful educational and employment opportunities, access to healthy food, nurturing early life experiences, the design of our communities, and clean and safe drinking water”

Alberta Health (2014).

Alberta’s Strategic Approach to Wellness, p. 7¹

“The rise in preventable illness can also be linked to an increase in health spending. Alberta has one of the highest health expenditures rates per capita in Canada at just over \$6,500. Most of this is spent when we are sick or diagnosed with a disease. We need to get the balance right in preventing disease from happening at all.”

Alberta Health (2014).
Alberta’s Strategic Approach to Wellness,
p. 5¹

It is recognized internationally, nationally and provincially that we need a more comprehensive approach to health promotion.⁷⁻¹² The population health approach offers great promise for considering these determinants of health and intervening to protect and promote health for all. A combination of universal, population-based interventions, along with selected and targeted interventions for populations who are particularly in need or are vulnerable to specific poor health outcomes are required.^{8, 10, 11, 13}

Types of Interventions:⁴

Universal Intervention: Targets everyone in the population.

Selected Intervention: Targets people who belong to a specific population (e.g., those living in poverty).

Targeted Intervention: Targets those known to be at definite risk of developing ill health (e.g., overweight children).

Creating supportive environments to promote maternal, child and youth health

“All developing children need a healthy start, nurturing relationships, and safe, supportive environments to grow, learn and thrive”

**Government of Alberta (2013).
Together We Raise Tomorrow, p. 6⁵**

Despite its prosperity, Canada does not rank highly on measures of maternal, infant and child health relative to comparable countries; among 29 Organization of Economic Cooperation and Development (OECD) countries, Canada scores below average for child poverty, child overall wellbeing, child and youth obesity, and child safety.¹⁴⁻¹⁵ Moreover, Canada has seen increases in the maternal mortality and preterm birth rates over the past 15 years.¹⁴ Nationally, there is substantial room for improvement with regard to maternal, child and youth health. There is growing international and national recognition of the need for governments and other stakeholders to make concerted efforts to address these priorities and to support the creation of health-enabling environments that encourage positive behaviour changes. We must focus efforts on children, youth and families and build capacities of communities and schools to support positive health behaviours.^{1-6,16-17}

Furthermore, it is essential that we approach our work through a life-course perspective starting with maternal health, through infancy, childhood, and into youth and adolescence. Particularly, with respect to early child development, each developmental stage should be viewed as crucial in and of itself, as well as in relation to subsequent development stages and life experiences.^{7, 11, 13,19-20} Overall, the maternal, child and youth populations represent key opportunities for intervening to promote health now and in the future.

“We know that when children thrive, they are likely to become adults who thrive, and this contributes to the collective well-being of the province, now and into the future... The foundation for strong, healthy children is set in the early years; starting even before they are born”.

**Government of Alberta (2013).
Together We Raise Tomorrow p. 3⁵**

“Healthy children emerge most often from healthy families, and healthy families are in turn promoted by healthy communities.”

**Government of
Canada (2011). The
Well-being of
Canada’s Young
Children, p.11¹⁸**

Economics of Prevention

“...early childhood provides an unequalled opportunity for investment in human capital...the rate of return to a dollar investment made while a person is young is higher than the rate of return for the same dollar made at a later age.”

OECD (2006). Starting Strong II: Early Childhood Education and Care p. 37¹⁹

Evidence demonstrates that early childhood provides an ideal time to invest in health through health promotion and prevention efforts: ^{8, 11, 19}

“...intervening earlier rather than later increases the positive impact on the brain development and life course outcomes.

Economic analyses suggest that a dollar invested in early childhood is 3 times more cost effective than one invested in school age children, and 8 times more cost effective than one invested in adult education.”

Government of Alberta (2013). Together We Raise Tomorrow p. 12⁵

Due to their broad reaching implications, early child development and obesity are considered particularly strong health promotion investment opportunities. That said, evidence also indicates that effective interventions in adolescence help to protect the investments made in early childhood and help to ensure benefits are sustained over time.²⁰

Disparities and Health Equity

Of particular concern in the Canadian context are populations who are vulnerable to poor health outcomes, including Aboriginal populations, newcomers to Canada, and those who have low incomes.^{12,15} We must ensure an equity lens is used in the consideration of future population health endeavours in Alberta. Efforts to address inequality, reduce poverty and to target populations vulnerable to poor health outcomes must become more of a priority.^{1-6, 16-17}

“Alberta is the third most diverse province in Canada with 16% of the population having been born in another country. With an average age of 27, immigrants are also more likely to have young families. Many immigrant families face issues that can negatively impact child development.”

Government of Alberta (2013). Together We Raise Tomorrow p. 15⁵

“Aboriginal people are over represented in health, justice and social services. The percentage of Aboriginal children and youth in care rose from 22% in 1986 to 67% in 2012, yet Aboriginal children only account for 9% of the child population in Alberta. 63% of Aboriginal inmates experienced foster or group homes, compared to 36% of non-Aboriginal inmates. The impact of complex issues such as colonization, racism, poverty and intergenerational trauma are root causes for many current issues that Aboriginal families face. Symptoms of these issues include addictions, mental health issues, family breakdown, chronic poverty, violence and despair.”

Government of Alberta (2013). Together We Raise Tomorrow p. 15⁵

Collaboration

Given the complex nature and interrelatedness of health and social issues facing the Alberta population, collaboration across ministries, AHS departments, Strategic Clinical Networks (SCNs), as well as non-governmental organizations (NGOs), communities, and schools is required.^{1-6, 16-17} We must act collectively to ensure efforts are made to maximize returns on investment and achieve positive changes in population health.^{12,14-15}

Prevention and health promotion are considered priorities by the Government of Alberta and AHS. Creating healthy environments for children and families requires substantial effort and confers much responsibility to AHS and particularly, the HCF team for undertaking work to achieve progress in these areas.

HEALTHY CHILDREN AND FAMILIES

As shown in Figure 1, HCF is situated within Healthy Living, Population, Public and Aboriginal Health (PPAH). Three teams develop and deliver initiatives targeting the preconception to 18 years of age population: Reproductive Health (RH), Early Childhood (EC), and Healthy Children and Youth (HCY). A fourth team, Knowledge Translation and Evaluation (KTE), works with these three teams by providing support in program planning, evaluation, and knowledge translation.

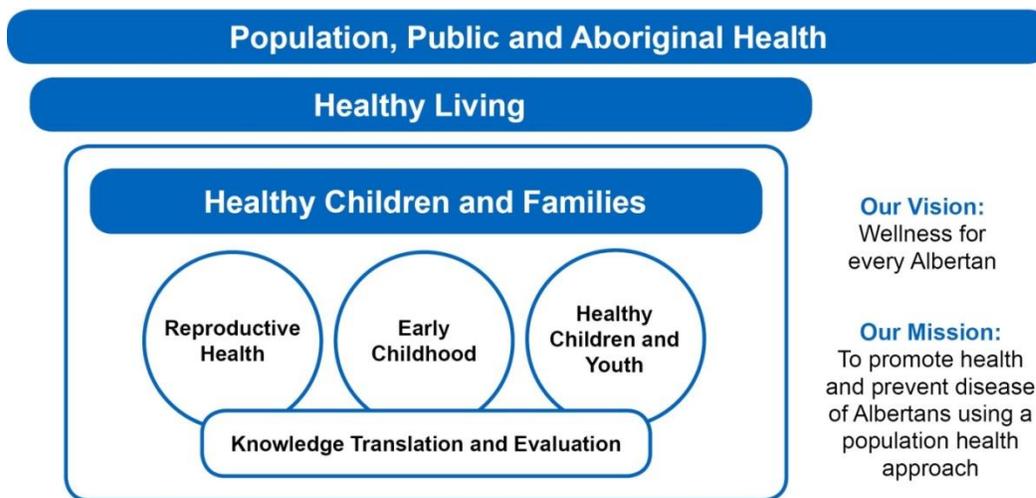


Figure 1. Healthy Children and Families Team Structure, Vision and Mission

The **population health approach**⁶⁹ focuses on the interrelated conditions and factors that influence the health of populations over the life course, identifies systematic variations in their patterns of occurrence, and applies the resulting knowledge to develop and implement policies and actions to improve the health and well-being of those populations.

Why a Strategic Action Plan?

The HCF Strategic Action Plan will provide a strong foundation for the development, implementation and evaluation of effective provincial projects and initiatives within each of the HCF teams. HCF initiatives will be: supported by evidence, aligned with the priorities of provincial, AHS and other key stakeholders, and responsive to the needs of the Alberta population from preconception to 18 years of age. The Strategic Action Plan will support a cohesive approach, and help to ensure that the RH, EC, HCY, and KTE teams work synergistically towards common goals. Ultimately, this will help to ensure that high quality, evidence-based investments in prevention and health promotion contribute to healthy children, families and communities in Alberta.

Our Strategic Planning Process

In May of 2014, HCF began a systematic process of evidence gathering and synthesis culminating in the development of this Strategic Action Plan. The KTE team led this work in close consultation with HCF management and Healthy Living leadership. Figure 2 below provides a summary of the key steps included in this process¹



Figure 2. Strategic Action Planning Process

This process allowed for a comprehensive approach to gathering and synthesizing the many information and evidence sources that inform the work of HCF. The strength of this Strategic Action Plan lies in its inclusion of strategic directions provided by our governing and funding authorities, data on the health of our population, peer-reviewed literature and contextual knowledge of stakeholders.

¹ See Appendices for the Executive Summaries of the Strategic Directions and Mandate Review (Appendix A) and the Health Status Assessment (Appendix B) which contain information about the methods used to complete each of these deliverables.

What Healthy Children and Families Does

The first step in our Strategic Action Planning Process was to clarify and articulate the mandate and scope of work for HCF. Three key categories can be used to summarize the work we do: (1) Population and Focus, (2) Functions, and (3) Outcomes of Interest, as detailed in Figure 3. As there is overlap in these categories between HCF and other departments in AHS, this represents a *guide* for describing the scope of work for HCF. The dotted line in the figure represents the fluidity between HCF and other departments and the opportunity for partnerships and collaboration on overlapping outcomes of interest.

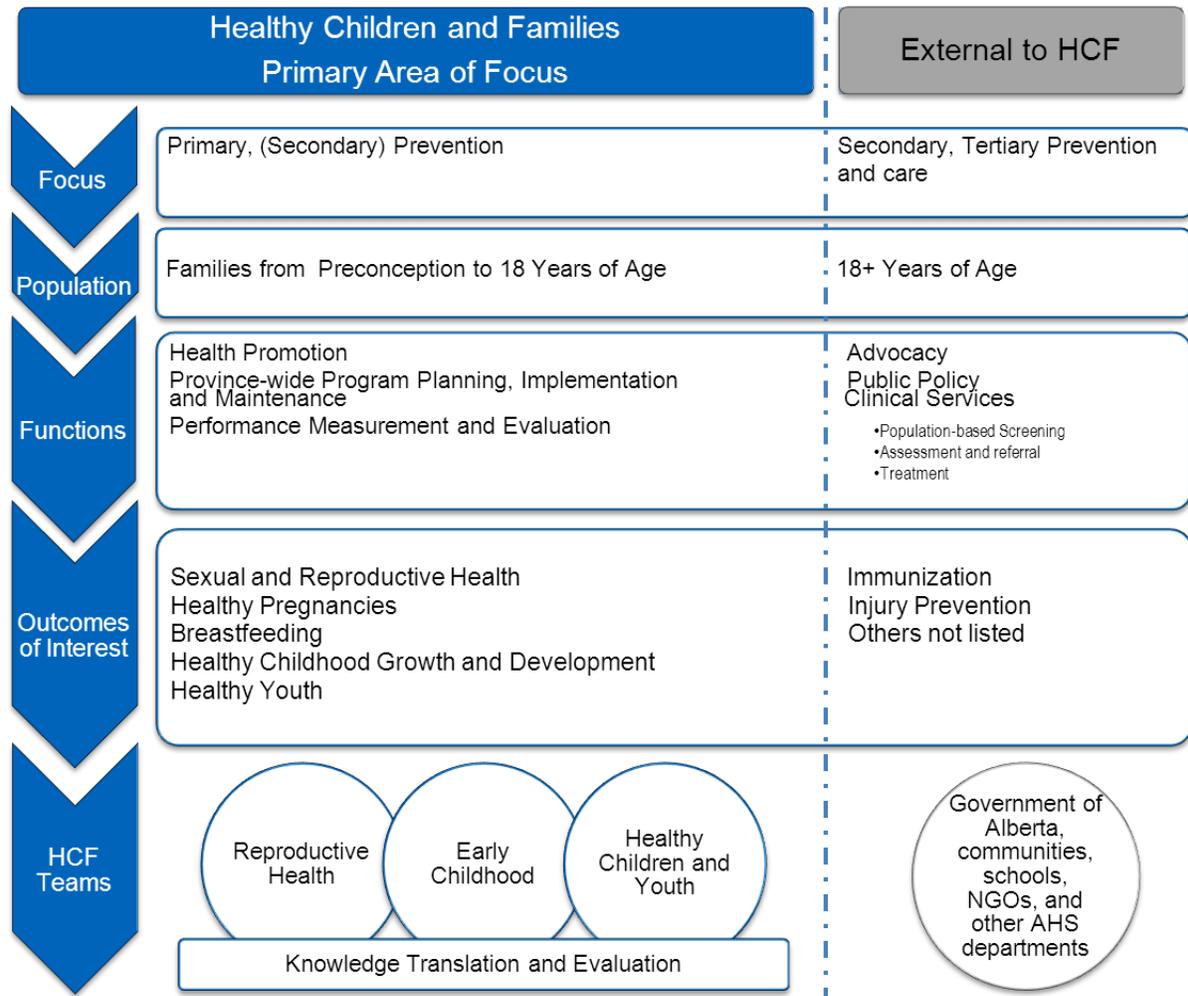


Figure 3. HCF Mandate and Scope of Work Summary

Population and Focus

HCF focuses on families from preconception, through pregnancy, birth, infancy, childhood and youth up to 18 years of age. Primary prevention is the main focus, though some elements of secondary prevention are also within the scope of the team. For example, interventions to address obesity that are considered secondary prevention may fit within the mandate of HCF.

Primary prevention: Preventing the onset of disease by intervening to remove or reduce risk factors.⁷⁰

Secondary prevention: Detecting and addressing disease in early stages, prior to the presentation of symptoms, to stop or slow its progression.⁷⁰

Functions

The following are considered the key functions of the HCF team:

- Health Promotion*
- Province-wide Program Planning, Implementation and Maintenance
- Performance Measurement and Evaluation

HCF may undertake other functions as needed, however those listed here constitute the main functions of the team.

*As identified by the Ottawa Charter for Health Promotion, Health Promotion encompasses five strategies:⁴

- (1) strengthening community action;
- (2) building healthy public policy;
- (3) creating supportive environments;
- (4) developing personal skills; and
- (5) reorienting health services.

Outcomes of Interest

Key outcomes of interest to HCF are:

- Sexual and Reproductive Health
- Healthy Pregnancies
- Breastfeeding
- Healthy Childhood Growth and Development
- Healthy Youth

Within these outcomes are a diverse range of modifiable factors that influence the health of the preconception to 18 years target population, including the following:

- Mental health
- Nutrition and physical activity (contributing to overweight and obesity)
- Early childhood experiences
- Sexual and reproductive health behaviours that may result in unintended pregnancy and STI's
- Tobacco, alcohol and other substance use

HCF completes work in these areas specifically with respect to the preconception, maternal, infant, child and youth populations, through the functions listed. Notably, there is significant overlap in these content areas with other AHS departments; some entire departments are dedicated entirely to the specific areas listed.

OUR STRATEGIC PRIORITY AREAS

Thoughtful consideration of the mandate of HCF, the strategic directions from AHS and the Government of Alberta, the health needs of the target population, and input from key stakeholders, resulted in the following six Strategic Priority Areas for HCF:

Strategic Priority Area		Description
1	Sexual and Reproductive Health	Promote sexual and reproductive health in school-age children and youth, and those in the preconception period.
2	Healthy Pregnancies and Birth Outcomes	Address health status/ modifiable behaviours in the preconception period and during pregnancy, including nutrition, physical activity, weight status, mental health, substance use.
3	Breastfeeding	Promote breastfeeding initiation, duration, and six month exclusivity.
4	Early Child Development	Promote healthy child development in all five domains of the Early Development Index (EDI): physical health and wellbeing; communication skills and general knowledge; social competence, emotional maturity; and language and thinking skills.
5	Child and Youth Mental Health	Promote mental health among school-age children.
6	Child and Youth Nutrition and Physical Activity	Promote healthy weights in children and youth by addressing modifiable factors such as nutrition, physical activity, sedentarism and mental health.

These Strategic Priority Areas capture what will be the focus for HCF going forward over the next three years. Each Strategic Priority Area is presented below with the strategic directions, as well as supporting data from the Health Status Assessment which provides context to the current state of the population for each area (the complete Health Status Assessment can be found in Appendix C and provides extensive data on the health of the population from preconception to 18 years of age). Additionally, evidence-supported approaches for addressing each Strategic Priority Area are provided. The approaches listed will be further examined for their feasibility, appropriateness and potential for impact in the next stage of our Action Planning with each team. Each of the Strategic Priority Areas were vetted and validated by stakeholders, with a summary of feedback provided for each below. A list of stakeholders consulted is available in Appendix D.

The sections below provide a snapshot of the evidence synthesized in this strategic action planning process; additional detailed information can be found in the Appendices and other supporting documents.

Strategic Priority Area 1: Sexual and Reproductive Health

**Strategic directions
we've been given:**

- Develop a provincial approach to preconception health⁶
- Support schools to develop curriculum about healthy life choices for reproductive health⁶
- Increase public knowledge and awareness of reproductive health – develop a strategy to disseminate information and resources promoting healthy birth outcomes⁶

**What we know about
our population:**

- 4.1% of pregnancies in Alberta occur in women under age 20²¹
- About 20% of Grade 9 and 10 students²² and 44% of those aged 15-19²³ in Alberta reported having had sexual intercourse
- 70% of sexually active 15-19 year olds reported that they usually use contraception²³
- Chlamydia is the most common sexually transmitted infection (STI) for the 12-19 population in Alberta and occurs at a rate of 1,363 per 100,000. The rate of Chlamydia for girls was nearly four times greater than it was for boys²⁴
- The North Zone had the highest rates of Chlamydia, Gonorrhea, and Syphilis²⁴

**Evidence-based
approaches for
consideration:**

The following types of interventions were reported in the literature to have some evidence of effectiveness at promoting healthy sexual behaviours among youth, and will be explored for their appropriateness and feasibility in the Alberta context:

- Parent education interventions to improve communication about sexual health²⁵
- School-based risk reduction sexual health education programs²⁶⁻²⁷
- Intensive, multicomponent youth development programs^{26,28}

What our stakeholders told us:

Stakeholders expressed strong support that Sexual and Reproductive Health be considered a key Strategic Priority Area. Providing supports to parents, teachers and young people were considered important work for HCF. Stakeholders strongly suggested that future project content and messages include additional information about healthy sexual relationships, consent and sexual responsibility.

Strategic Priority Area 2: Healthy Pregnancies and Birth Outcomes

Evidence-based approaches for consideration:

- Develop a provincial approach to preconception health⁶
- Develop and implement prevention programs and policies to address maternal modifiable risk factors including nutrition, physical activity, healthy weights, age, substance use, and mental health^{2,5,6,17}
 - Promote nutrition, physical activity and healthy weight gain during pregnancy
- Develop programs to address low birth weight, small for gestational age and preterm birth^{2,5,6}
- Develop and implement programs to address maternal anxiety and depression^{2,4-6}
- Develop and implement programs to build families' awareness, knowledge and skills to better support the mental health of mothers^{2,4-6}
- Address the maternal health needs of vulnerable populations including First Nations, Inuit and Metis (FNIM), newcomers and low-income families^{2,5,6,17}

Evidence-based approaches for consideration:

- 42% of Alberta women were overweight or obese prior to becoming pregnant²⁹ and 52% of women gained in excess of gestational weight gain guidelines during their most recent pregnancy²⁹
- 16% of Canadian women smoked, 62% drank alcohol and 7% used street drugs in the three months before becoming pregnant³⁰
- 47% of Alberta First Nations women and 15% of all Alberta women smoked during pregnancy³¹
- 12% of Alberta women were diagnosed with postpartum depression (PPD)
- The rate of preterm birth was 9% in the general population³³ and 11% in the First Nations population,²⁴ both above the national average of 8%³⁴
- The rate of small for gestational age was 11% in Alberta²⁴, above the national rate of 8%³⁴
- Infant mortality among Alberta First Nations peoples was extremely high at a rate of 9.7/1,000, more than double the Alberta rate of 4.5/1,000²⁴

Evidence-based approaches for consideration:

The following types of interventions were reported in the literature to have some evidence of effectiveness, and will be explored for their appropriateness and feasibility in the Alberta context:

For promoting preconception health:³⁵

- Public awareness campaigns
- Group education/ peer support sessions
- Individual counselling
- Direct, complementary provision of supplements
- Targeted interventions for women with a previous adverse pregnancy outcome

For preventing gestational weight gain:³⁶⁻³⁸

- Dietary advice through group meetings or mail
- Individual dietary counselling
- Physician prescription of calorie restriction
- Exercise counselling and structured individualized physical activity programs

For preventing PPD:³⁹⁻⁴⁰

- Individualized home visits from health care professionals
- Individual and group therapy
- Peer support

Evidence strongly suggested that targeted interventions for women who are vulnerable to adverse mental health outcomes are more effective and feasible than those targeting the entire maternal population.³⁹⁻⁴⁰

A range of factors are associated with low birth weight and preterm birth and limited evidence of effective population-health interventions could be found. However, evidence suggested that promotion of healthy pregnancies and ultimately healthy infant outcomes requires.⁴²⁻⁴⁵

- Ensuring disadvantaged women have access to care, behavioural, social and financial supports
- Providing smoking cessation programs
- Providing nutritional counselling and supplements

What our stakeholders told us:

Comments from stakeholders about supporting healthy pregnancies and births centered around mental health, and in particular, PPD. Stakeholders felt strongly that there is a need to create healthy environments to help support maternal mental health and noted the need to collaborate with Addictions and Mental Health to undertake actions in this area.

Strategic Priority Area 3: Breastfeeding

Strategic directions we've been given:

- Develop, pilot and evaluate programs to improve breastfeeding rates^{2,6}
 - Implement programs such as the Baby Friendly Initiative (BFI) or elements of the BFI (policy, staff training)
 - Implement peer support programs
 - Address barriers to breastfeeding and disseminate information and resources to promote/support breastfeeding^{2,6}
 - Build families' awareness, knowledge and skills to better support breastfeeding mothers^{2,6}

What we know about our population:

- Breastfeeding initiation rates were relatively high in Alberta (91%) and in line with the national rate of 90%⁴⁶
- Among Alberta mothers who initiated breastfeeding, 42% reported total breastfeeding duration of greater than six months. Of these, 16% reported a breastfeeding duration of greater than one year (slightly below national rates of 44% and 18%, respectively)⁴⁶
- Among Alberta women who reported breastfeeding, 26% reported exclusive breastfeeding for six months, slightly higher than the national rate of 23%⁴⁶

Evidence-based approaches for consideration:

The following types of interventions were reported in the literature to have some evidence of effectiveness at promoting breastfeeding initiation, duration and exclusivity, and will be explored for their appropriateness and feasibility in the Alberta context:⁴⁷⁻⁴⁸

- Facility-based interventions such as the BFI or elements of the BFI (e.g., policy and staff training)
- Perinatal educational interventions
- Group and individual counselling
- Peer support programs

What our stakeholders told us:

Stakeholders expressed the need for strengthened efforts in addressing the barriers to breastfeeding and creating supportive environments for breastfeeding. They also noted the need for tailored approaches to working with Aboriginal communities in this area.

Strategic Priority Area 4: Early Child Development

Strategic directions we've been given:

Support implementation of the Early Child Development Priority Initiative (ECDPI).³

- Support efforts to achieve improvements in EDI scores
- Work with communities to enhance capacities to support healthy development in early childhood

Develop and disseminate parenting awareness, education and support programs to increase knowledge, skills and confidence to parent³⁻⁵

- Disseminate and evaluate the Healthy Parents Healthy Children (HPHC) resource
- Implement a social marketing campaign for the HPHC resource
- Enhance/ develop other awareness and support programs for parents

What we know about our population:

- According to the EDI, Alberta children aged 4-7 were experiencing slightly more problems in development than Canadian children; 28% were experiencing difficulties in one or more areas of development, compared to 25% nationally⁴⁹
- 15% of Alberta children were experiencing great difficulties in two or more areas of development, compared to 13% nationally⁴⁹
- Communication Skills and General Knowledge was the EDI domain in which Alberta children were most commonly experiencing difficulty or great difficulty (31%)⁴⁹

Evidence-based approaches for consideration:

While no single parent education program has been found to directly and significantly improve child development outcomes, some have demonstrated improvements in parent knowledge and confidence, which may translate into improved parenting and ultimately, improved outcomes among children.⁵⁰⁻⁵²

Individual and group antenatal classes were not found to consistently improve early child development outcomes.⁵³

Overall, there was limited evidence of effective interventions for supporting early child development. Effective early child development programs were typically targeted interventions, which required universal screening at birth and onward up to three years of age to identify families in need of targeted support through infancy and toddlerhood, until reaching school age where universal and other targeted programs can be provided.⁸ It was clear from the evidence that a multifaceted approach to early child development is required.⁵⁰⁻⁵¹

What our stakeholders told us:

Stakeholders felt that efforts to support early child development should be focused on creating supportive environments, building capacities and addressing barriers. They noted the many other provincial and national stakeholders who share the responsibility to address early child development, and the complexity of doing so.

Stakeholders suggested that efforts to support early child development be considered in relation to healthy pregnancies and infant outcomes. They noted the potential for Well Child Clinic visits to help support early child development and to identify children and families in need of support.

Stakeholders also noted the need for more evidence on effective population-based strategies to support early child development.

Strategic Priority Area 5: Child and Youth Mental Health

Strategic directions we've been given:

- Address child and youth mental health with a focus on building resilience²⁻⁴
- Support schools to improve mental health, through the Comprehensive School Health (CSH) program

What our stakeholders told us:

Our stakeholders felt strongly that mental health among school-age children and youth is a crucial area of need and must be a key priority area for HCF going forward. They expressed concern that the data on child and youth mental health does not reflect the true picture and extent of challenges facing this population. It was said that schools recognize mental health as a substantial area of need, however, they are challenged by the task of imbedding mental health promotion into their setting.

Body image and disordered eating was an additional area of concern expressed about youth mental health. Our stakeholders suggested that this is an area of need, and one which requires very thoughtful approaches to intervening.

A key suggestion from stakeholders was that mental health be addressed holistically, in consideration of other modifiable factors and behaviours such as physical activity, nutrition, weight status, and sleep. Stakeholders emphasized the need for mental health to be considered a foundational piece to all of these elements of health.

Stakeholders also indicated that there is a need for improvements to professional development for teachers and early child care providers in regard to mental health.

What we know about our population:

- Among 12-19 year olds in Alberta 77% reported excellent or very good mental health overall. Boys consistently reported more positive mental health than girls⁵⁴
- Between 65% and 75% of Alberta students in Grades 6-10 reported that they have experienced bullying²²
- Overall, most youth in Alberta (greater than 90%) aged 12-19 reported being satisfied or very satisfied with relationships with their family and friends⁵⁴

Evidence-based approaches for consideration:

The following types of interventions were reported in the literature to have some evidence of effectiveness for mental health promotion and the prevention of anxiety and depression among children and youth, and will be explored for their appropriateness and feasibility in the Alberta context:

- Comprehensive school-based programs - schools provide a good setting for universal prevention programs, though quality of implementation is a key factor in effectiveness⁵⁵⁻⁵⁸
- Targeted programs – have been found to be more consistently effective and confer stronger effects⁵⁵⁻⁵⁷
- School-based anti-bullying programs - have been somewhat effective, though must be implemented cautiously as adverse outcomes have been reported^{55,57,58}

Strategic Priority Area 6: Child and Youth Nutrition, Physical Activity, Overweight and Obesity

Strategic directions we've been given:

- Develop and implement programs to prevent/address child and youth overweight and obesity¹⁻⁴
- Support schools to increase the availability of healthy foods and beverages and increase opportunities for physical activity

What we know about our population:

Among 12-19 year olds in Alberta⁵⁴:

- 37% reported eating five or more fruits and vegetables per day, below the national rate of 45%
- 29% were considered inactive, in line with the national rate of 28%.
- Rates of inactivity increased with age from early childhood into adolescence
- 19% were overweight or obese, slightly below the national rate of 22%

National data indicated that 62% of First Nations children aged 2-11 were overweight or obese.⁵⁹

Evidence-based approaches for consideration:

Child and youth obesity prevention efforts are extremely complex and continue to pose a challenge to public health. The following types of interventions were reported in the literature to have some evidence of effectiveness, and will be explored for their appropriateness and feasibility in the Alberta context:^{58,60-66}

- Interventions to promote fruit and vegetable consumption and reduction in sugar-sweetened beverage consumption
- Strengthened food policies in schools
- Structured sessions for physical activity in schools
- Support and training for teachers

The strongest evidence of obesity prevention effectiveness was seen in programs targeting 6-12 year olds.⁶² However, given that the behaviours which contribute to overweight and obesity are so strongly shaped in early childhood and track into adolescence and adulthood, interventions in the food environment of pre-school settings were also recommended.⁶⁷

While multifaceted approaches are required, they must be thoughtfully developed and rigorously implemented with adequate supports; they must maintain specific objectives, with key messages and accompanying concrete supports to students, teachers and parents in order to be effective. Amongst the mixed findings of obesity prevention programs, authors noted that the quality of planning and implementation is a crucial determining factor in intervention effectiveness.⁶⁸

What our stakeholders told us:

Our stakeholders expressed strong opinions about the need for HCF to help support the creation of linkages between programming for overweight and obesity with mental health promotion, as they note very strong connections between these two Strategic Priority Areas. Collaboration with other AHS departments as well as external stakeholders was stated to be of particular importance.

Stakeholders expressed concern about the lack of data for child and youth nutrition, and particularly the lack of all data for children under 12 years of age.

Finally, stakeholders suggested we be mindful of the issue of weight bias.

Other general comments from our stakeholders:

Overall, our stakeholders expressed support for the six Strategic Priority Areas identified and directions provided. They felt that the areas we identified reflect the health needs of our target population and require concerted efforts going forward to make improvements.

Overall, stakeholders felt that there is a need to enhance the focus of our work on family-centered health promotion and ensuring our work is done in a culturally appropriate manner. They indicated that equity must be a top priority and that targeted interventions are likely required to ensure the needs of populations vulnerable to adverse health outcomes are met.

PERFORMANCE MEASUREMENT

Measuring the work we do is essential to ensuring that we are meeting and adapting to the needs of our population. A performance measurement framework will be developed for HCF; it will be designed to capture the work done by each of the teams within HCF, and to align with the Quality Management Framework for all of Healthy Living and PPAH. Additional consultation on specific performance targets and actions will take place in a subsequent phase of planning.

LOOKING FORWARD

This Strategic Action Plan provides foundational guidance to focus the work of HCF going forward. It also confirms that much of the current work of HCF is well supported by evidence and warrants continued efforts. Appendix E provides an overview of current HCF projects and their alignment with the Six Strategic Priority Areas identified in this Strategic Action Plan.

The findings from this Strategic Action Plan will now be used to develop detailed three year action plans for each of the teams within HCF. The planned process for Team Action Planning is shown in Figure 4.

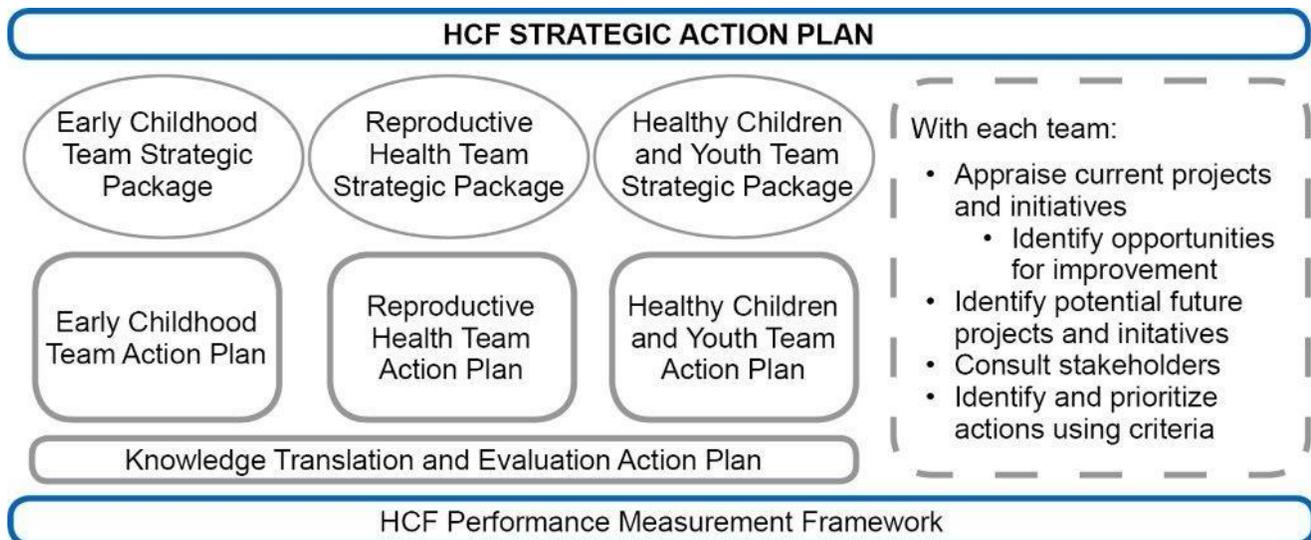


Figure 4. Team-specific Action Planning Process

The Team Action Plans will outline projects and initiatives to be planned and implemented over the next three years. Criteria for population-based interventions will be used to appraise current HCF projects and initiatives, and identify opportunities for improvement. Criteria will also be used to identify and prioritize new projects and initiatives. The Action Plans will be designed to ensure that the areas of need identified in this Strategic Action Plan are addressed, and that HCF contributes to significant improvements in the health of the preconception to 18 years of age population. Stakeholders will be consulted going forward to ensure appropriate prioritization, timing and implementation of future actions.

REFERENCES

1. Alberta Health (2014). Alberta's Strategic Approach to Wellness: Health for All...Wellness for Life. Retrieved from: <http://www.health.alberta.ca/documents/Strategic-Approach-Wellness-2013.pdf>
2. Alberta Health and Alberta Health Services (2010). Becoming the Best: Alberta's 5-year Health Action Plan 2010-2015. Retrieved from: <http://www.health.alberta.ca/documents/Becoming-the-Best-2010.pdf>
3. Alberta Health Services (2014). Health Plan and Business Plan 2013-2016 & Alberta (2014) Health Services Action Plan 2013-2014. Retrieved from: <http://www.albertahealthservices.ca/Publications/ahs-2013-16-health-business-plan.pdf>
4. Alberta Health and Alberta Health Services (2011). Creating Connections: Alberta's Addiction and Mental Health Strategy. Retrieved from: <http://www.health.alberta.ca/documents/Creating-Connections-2011-Strategy.pdf>
5. Government of Alberta (2013). Together We Raise Tomorrow: An Alberta Approach to Early Childhood Development. Retrieved from: http://earlychildhood.alberta.ca/files/documents/hs-ecd_discussion_guide-final2.pdf
6. Alberta Health (2013) Healthy Mothers, Healthy Babies: Alberta's Maternal-Infant Health Strategy, Action Plan, and Strategic Communications Plan. Edmonton, Alberta.
7. World Health Organization (WHO) (2013). Global Strategy on Diet, Physical Activity and Health. Accessed at http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_web.pdf
8. Australian Health Ministers' Advisory Council (2011). National Framework for Universal Child and Family Health Services. Retrieved from: [http://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/\\$File/NFUCFHS.PDF](http://www.health.gov.au/internet/main/publishing.nsf/Content/AFF3C1C460BA5300CA257BF0001A8D86/$File/NFUCFHS.PDF)
9. Australian Institute of Health and Welfare (2012). A Picture of Australia's Children. Retrieved from: <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737423340>
10. Commonwealth of Australia (2009). Investing in the Early Years – A National Early Childhood Development Strategy. Retrieved from: https://www.coag.gov.au/sites/default/files/national_ECD_strategy.pdf
11. England Department of Health (2011). Healthy Lives, Healthy People: A call to action on obesity in England. Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213720/dh_130487.pdf
12. Public Health Agency of Canada and Canadian Institute for Health Information (2011). Obesity in Canada: A joint report from the Public Health Agency of Canada and the Canadian Institute for Health Information. Accessed at https://secure.cihi.ca/free_products/Obesity_in_canada_2011_en.pdf
13. United Kingdom, Department of Health (2009). Healthy Child Programme: Pregnancy and the first five years of life. Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/167998/Health_Child_Programme.pdf
14. Canadian Institutes of Health Research (2013). Healthy Foundations of Life: Institute of Human Development, Child and Youth Health Strategic Plan 2013-2017. Retrieved from: http://www.cihr-irsc.gc.ca/e/documents/ihdcyh_strategic_plan__2013-2018-en.pdf
15. Health Canada (2008). Reaching for the Top: A Report by the Advisor on Healthy Children and Youth, Dr. Kellie Leitch. Retrieved from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/hpb-dgps/pdf/child-enfant/2007-advisor-conseillere/advisor-conseillere-eng.pdf

16. Government of Alberta (2013). Alberta's Social Policy Framework. Retrieved from: <http://socialpolicyframework.alberta.ca/files/documents/ahs-nonannotatedfrmwrk-webfinal.pdf>
17. Government of Alberta (2008). FASD 10-Year Strategic Plan. Retrieved from: <http://fasd.alberta.ca/documents/FASD-10-year-plan.pdf>
18. Government of Canada (2011). The Well-being of Canada's Young Children. Accessed at http://www.dpe-agje-ecd-elcc.ca/eng/ecd/well-being/sp_1027_04_12_eng.pdf
19. Organization of Economic Cooperation and Development [OECD] (2006). Starting Strong II: Early Childhood Education and Care. Accessed at <http://www.oecd.org/newsroom/37425999.pdf>
20. WHO (2014). Health for the World's Adolescents: A second change in the second decade. Executive Summary. Accessed at http://apps.who.int/adolescent/second-decade/files/1612_MNCAH_HWA_Executive_Summary.pdf
21. Alberta Perinatal Health Program (APHP) (2013). Provincial Perinatal Report 2013 Edition. Edmonton, Alberta.
22. Social Program Evaluation Group [SPEG] (2010). Health and Health-Related Behaviours Among Young People: Alberta. Queens University.
23. Alberta Health Services (2014b). CCHS 2009/10 Sexual Health Module data accessed via data request. Surveillance and Reporting. Calgary, Alberta.
24. Alberta Health (AH) (2014). Interactive Health Data Application (IHDA). Accessed from http://www.ahw.gov.ab.ca/IHDA_Retrieval/
25. Akers, A., Holland, C., and Bost, J. (2011). Interventions to Improve Parental Communication About Sex: A Systematic Review. *Pediatrics*, 123(3), 494-510.
26. Dean, S., Lassi, Z., Imam, A., and Bhutta, Z. (2014). Preconception care: promoting reproductive planning. *Reproductive Health*, 11(Suppl3), S2.
27. Oringanje, C., Meremikwu, M., Esu, E., Meremikwu, A., and Ehiri, J. (2010). Interventions for preventing unintended pregnancies among adolescents (Review). *The Cochrane Library* 2010, Issue 1.
28. Gavin, L., Catalano, R., David-Ferdon, C., Gloppen, K., and Markham, C. (2010). A Review of Positive Youth Development Programs that Promote Adolescent Sexual and Reproductive Health. *Journal of Adolescent Health*, 46, S75-S91.
29. Alberta Health Services (2013). Healthy Pregnancy Weight Gain Project – Interim Evaluation Report. Calgary, Alberta.
30. Public Health Agency of Canada (2009). What Mothers Say: The Canadian Maternity Experiences Survey. Accessed from <http://www.phac-aspc.gc.ca/rhs-ssg/survey-eng.php>
31. Health Canada (2013). First Nations Health Status Report – Alberta Region 2011-12 Report by the Medical Officer of Health. Accessed from http://publications.gc.ca/collections/collection_2013/sc-hc/H26-4-2012-eng.pdf
32. Potestio, M. (2012). Treated Postpartum Depression Prevalence in Alberta. Unpublished raw data. Alberta Health Services; Research and Innovation: Surveillance and Infrastructure, Population Public and Aboriginal Health.
33. Alberta Perinatal Health Program (APHP) (2014). Unpublished data accessed via data request. Edmonton, Alberta.
34. Public Health Agency of Canada (PHAC) (2013). Perinatal Health Indicators for Canada 2013: A Report from the Canadian Perinatal Surveillance System. Accessed from http://publications.gc.ca/collections/collection_2014/aspc-phac/HP7-1-2013-eng.pdf
35. Alberta Health Services (2014). Preconception Health Literature Review: Summary of Findings. Calgary, Alberta.
36. Adegboye, A., and Linne, Y. (2013). Diet, exercise, or both, for weight reduction in women after childbirth (Review). *The Cochrane Library* 2013, Issue 7.

37. Alberta Health Services (2012). Healthy Pregnancy Weight Gain Systematic Review of Reviews. Calgary, Alberta.
38. Oteng-Ntim, E., Varma, R., Croker, H. Poston, H., and Doyle, P. (2012). Lifestyle interventions for overweight and obese pregnant women to improve pregnancy outcomes: systematic review and meta-analysis. *BMC Medicine*, 10(47); 1-15.
39. Leis, J., Mendelson, T., Tandon, D., Perry, D. (2009). A systematic review of home-based interventions to prevent and treat postpartum depression. *Archives of Women's Mental Health*, 12(3); 3-13.
40. Dennis, C., and Dowswell, T. (2013). Psychosocial and psychological interventions for preventing postpartum depression (Review). *The Cochrane Collaboration* 2013, Issue 2.
41. Goodman, J., Santangelo, G. (2011). Group treatment for postpartum depression: a systematic review.
42. Requejo, J., Meriardi, M., Althabe, F., Keller, M., Katz, J., and Menon, R. (2013). Born Too Soon: Care during pregnancy and childbirth to reduce preterm deliveries and improve health outcomes of the preterm baby. *Reproductive Health*, 10(Supple1);54.
43. Shah, P., Balkhair, T., Ohlsson, A., Beyene, J., Scott, F., and Frick, C. (2011). Intention to Become Pregnant and Low Birth Weight and Preterm Birth: A Systematic Review. *Journal of Maternal and Child Health*, 15; 205-216.
44. Allen, F., Gray, R., Oakley, L., Kurinczuk, J., Brocklehurst, P., Hollowell, J. (2009). The effectiveness of interventions targeting major potentially modifiable risk factors for infant mortality: a users guide to the systematic review of evidence. National Perinatal Epidemiology Unit, University of Oxford.
45. Institute of Health Economics (2008). Determinants and Prevention of Low Birth Weight: A Synopsis of the Evidence. Calgary, Alberta.
46. Alberta Health Services (2014d). CCHS 2012 accessed via data request. Surveillance and Reporting. Calgary, Alberta.
47. Haroon, S., Das, J., Salam, R., Imdad, A., and Bhutta, Z. (2013). Breastfeeding promotion interventions and breastfeeding practices: a systematic review. *BMC Public Health*, 13(Suppl3), S20.
48. Nagulesapillai, T., (2013). Population health strategies to maintain or increase breastfeeding rates: A review of systematic reviews. Alberta Health Services, Calgary, Alberta.
49. ECMap Early Child Development Mapping Project Alberta (2014). Baseline EDI results set for Alberta: Fact Sheet June 2014. Accessed from https://www.ecmap.ca/ECMap%20FactSheets/ECMap_FactSheet_EDIBaselineAB_20140604.pdf
50. Region of Peel (2013). Population-level interventions to optimize early child development: A realist review of the evidence.
51. Bayer, J., Hiscock, H., Scalzo, K., Mathers, M., McDonald, M., Morris, A., Birdsete, J., and Wake, M. (2009). Systematic review of preventive interventions for children's mental health: what would work in Australian contexts? *Australian and New Zealand Journal of Psychiatry*, 43, 695-710.
52. Waddell, C., Hua, J., Garland, O., Peters, R., and McEwan, K. (2007). Preventing Mental Disorders in Children: A Systematic Review to Inform Policy-Making. *Canadian Journal of Public Health*, 98(3); 166-173.
53. Gagnon, A., and Sandall, J. (2011). Individual or group antenatal education for childbirth or parenthood, or both (Review). *The Cochrane Library* 2011, Issue 10.
54. Alberta Health Services (2014a). CCHS 2011/12 accessed via data request. Surveillance and Reporting. Calgary, Alberta.
55. Weare, K., and Nind, M. (2011). Mental health promotion and problem prevention in schools: what does the evidence say? *Health Promotion International*, 26(S1); i29-i69).

56. Merry, S., Hetrick, S., Brudevold-Iversen, T., Bir, J., and McDowell, H. (2011). Psychological and educational interventions preventing depression in children and adolescents (Review). The Cochrane Library, 2011, Issue 12.
57. Ttofi, M., and Farrington, D., (2010). Effectiveness of school-based programs to reduce bullying: a systematic and meta-analytic review. *Journal of Experimental Criminology*, 7; 27-56.
58. Langford, R., Bonell, C., Jones, H., Poulidou, T., Murphy, S., Waters, E., Komro, K., Gibbs, L., Magnus, D., and Campbell, R. (2014). The WHO Health Promoting School Framework for improving the health and well-being of students and their academic achievement (Review). The Cochrane Library 2014, Issue 4.
59. First Nations Information Governance Centre (FNIGC) (2014). First Nations Regional Health Survey 2008/10. Accessed from <http://data.fnigc.ca/online>
60. Bourke, M., Whittaker, P., and Verma, A. Are dietary interventions effective at increasing fruit and vegetable consumption among overweight children? A systematic review. *Journal of Epidemiology and Community Health*, 68;485-490.
61. Avery, A., Bostock, L., and McCullough, F. (2014). A systematic review investigating interventions that can help reduce consumption of sugar-sweetened beverages in children leading to changes in body fatness. *Journal of Human Nutrition and Dietetics*.
62. Waters, E., de Silva-Sanigorski, A., Burford, B., Brown, T., Campbell, K., Gao, Y., Armstrong, R., Prosser, L., and Summervell, C. (2013). Interventions for preventing obesity in children (Review). The Cochrane Library 2013, Issue 8.
63. Silveira, J., Traddei, J., Guerra, P., and Nobre, M. (2011). Effectiveness of school-based nutrition education interventions to prevent and reduce excessive weight gain in children and adolescents: a systematic review. *Journal of Pediatrics*, 87(5): 382-392.
64. Dobbins, M., Husson, H., DeCorby, K., and LaRocca, R. (2013). School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6-18 (Review). The Cochrane Library 2013, Issue 2.
65. Oude Luttikhuis, H., Baur, L., Jansen, H., Shrewsbury, V., O'Malley, C., Stolk, R., and Summervell, C. (2009). Interventions for treating obesity in children (Review). The Cochrane Library 2009, Issue 1.
66. Ho, M., Garnett, S., Baur, L., Burrows, T., Stewart, L., Neve, M., and Collins, C. (2012). Effectiveness of Lifestyle Interventions in Child Obesity: Systematic Review with Meta-analysis. *Pediatrics*, 130(6); e1647-1671.
67. Hesketh, K., Campbell, K. (2010). Interventions to Prevent Obesity in 0-5 Year Olds: An Updated Systematic Review of the Literature. *Nature*, 18(Suppl1); S27-S35
68. Jackson, C., Henderson, M., Frank, J., and Haw, S. (2012). An overview of prevention of multiple risk behaviour in adolescence and young adulthood. *Journal of Public Health*, 34(S1), i31-i40.
69. Public Health Agency of Canada (2012). What is the Population Health Approach? <http://www.phac-aspc.gc.ca/ph-sp/approach-approche/index-eng.php>
70. Alberta Health Services (2008). Healthy Living Context Document: Health promotion to help build Canada's healthiest community.