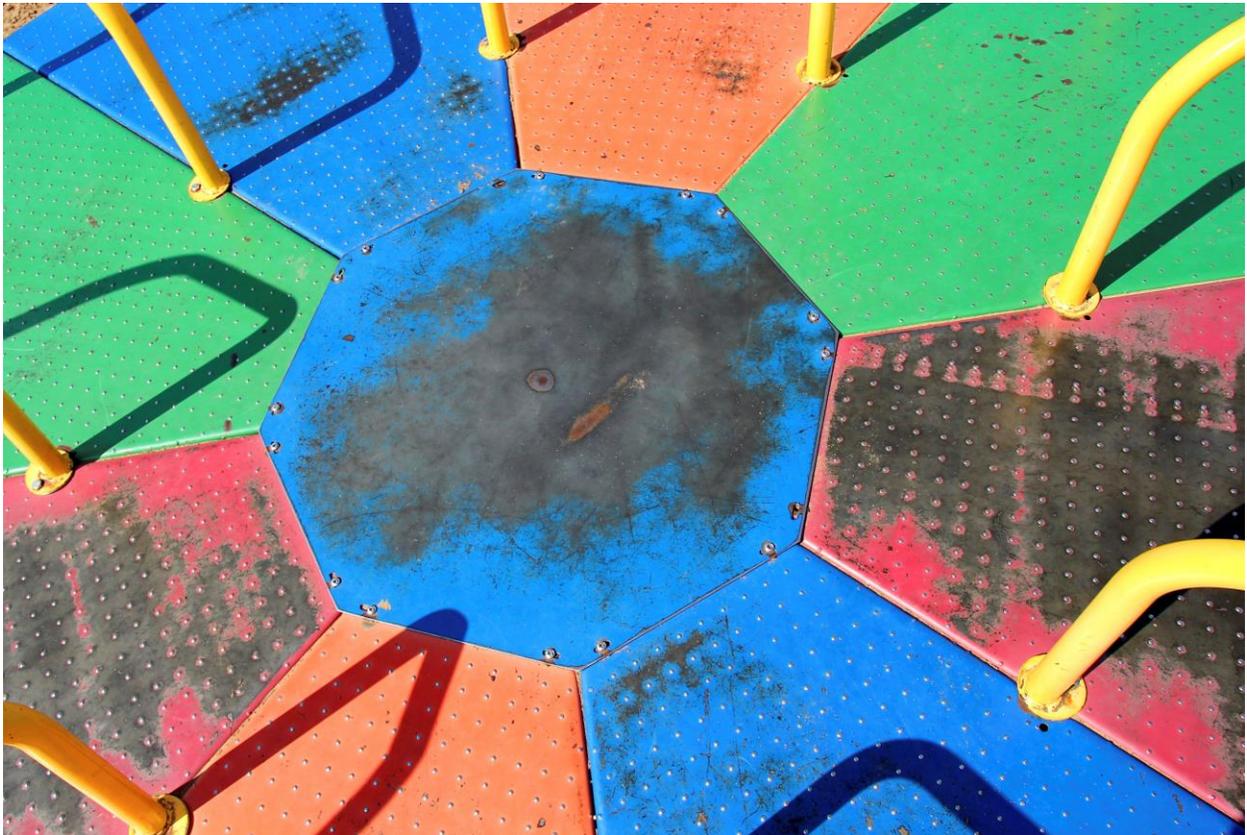


# Healthy Kids Community Challenge

## Public Health Ontario's Evaluation Plan



Updated October 2016

## Public Health Ontario

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## How can you connect with us?

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### For information about The HKCC Program and Activities

Visit the website at: <http://www.health.gov.on.ca/en/public/programs/healthykids/>

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## The Issue

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- In Canada, between 1978-79 and 2004, rates of obesity and overweight increased rapidly (by 102 per cent and 29 per cent respectively).<sup>1,2</sup>
- Thirty-two per cent of Canadian children are overweight or obese, and these conditions tend to last into adulthood.<sup>3</sup>
- Excess body weight places individuals at an increased risk of developing chronic conditions (e.g., cardiovascular disease, type II diabetes, cancer), adverse mental health outcomes (e.g., depression),<sup>4</sup> adverse social consequences (e.g., bullying),<sup>5</sup> and dying prematurely.<sup>6</sup>
- Physical activity, sedentary behaviour, healthy eating and sleep are important modifiable behavioural determinants of healthy weights.<sup>7,8,9,10</sup>
- Children's behaviours are influenced by interactions between children, their parents, their peers, and the social and physical environments in which they live (e.g., school, workplace, home, community).<sup>11</sup>
- For children in particular, behaviour and body weight are influenced by parents (e.g., through role modeling, creating supportive environments at home, etc.). In turn, parental support behaviours are influenced by the social, physical, cultural and political environments in which they live.<sup>12</sup>
- A successful response to childhood obesity must consider these underlying complexities.<sup>13</sup>

## The Response in Ontario

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- On the recommendation of the Healthy Kids Panel, the Ministry of Health and Long-Term Care (MOHLTC) developed the [Healthy Kids Community Challenge \(HKCC\)](#).
- The MOHLTC has funded 45 communities across Ontario to participate in the HKCC. The aim of the HKCC program is to reduce the prevalence of and prevent childhood overweight and obesity.
- Participating communities will work with local partners to develop and implement community-based activities (programs, policies, environmental supports) that promote healthy behaviours (i.e., healthy eating and physical activity).
- The MOHLTC will support participating communities with funding, training, advice, and social marketing tools and other resources.
- Public Health Ontario (PHO) will be evaluating the impact of the HKCC Program on children and youth, parents, and communities.

# Healthy Kids Community Challenge Program

## Goals and Objectives

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### **Goal:**

- To reduce the prevalence of and prevent childhood overweight and obesity in the participating HKCC communities.

### **Objectives:**

- To improve the conditions within communities participating in the HKCC by creating supportive environments to enable healthy behaviours in children, and related support behaviours in their parents.
- To contribute to the evidence on the effectiveness of centrally-coordinated, community-based interventions to improve healthy weights and weight related behaviours.
- To increase communities' capacity to plan, implement and evaluate sustainable health interventions at the community level.
- To improve community collaboration and coordination on promoting healthy childhood weights, through the development and mobilization of multi-sectoral community partnerships.
- To increase the proportion of children reporting recommended levels of specific health behaviours targeted by the HKCC.
- To increase the proportion of parents in the HKCC communities who engage in parental support behaviours and reduce the proportion who perceives barriers to supporting child health behaviours.
- To increase awareness of and participation in the HKCC.

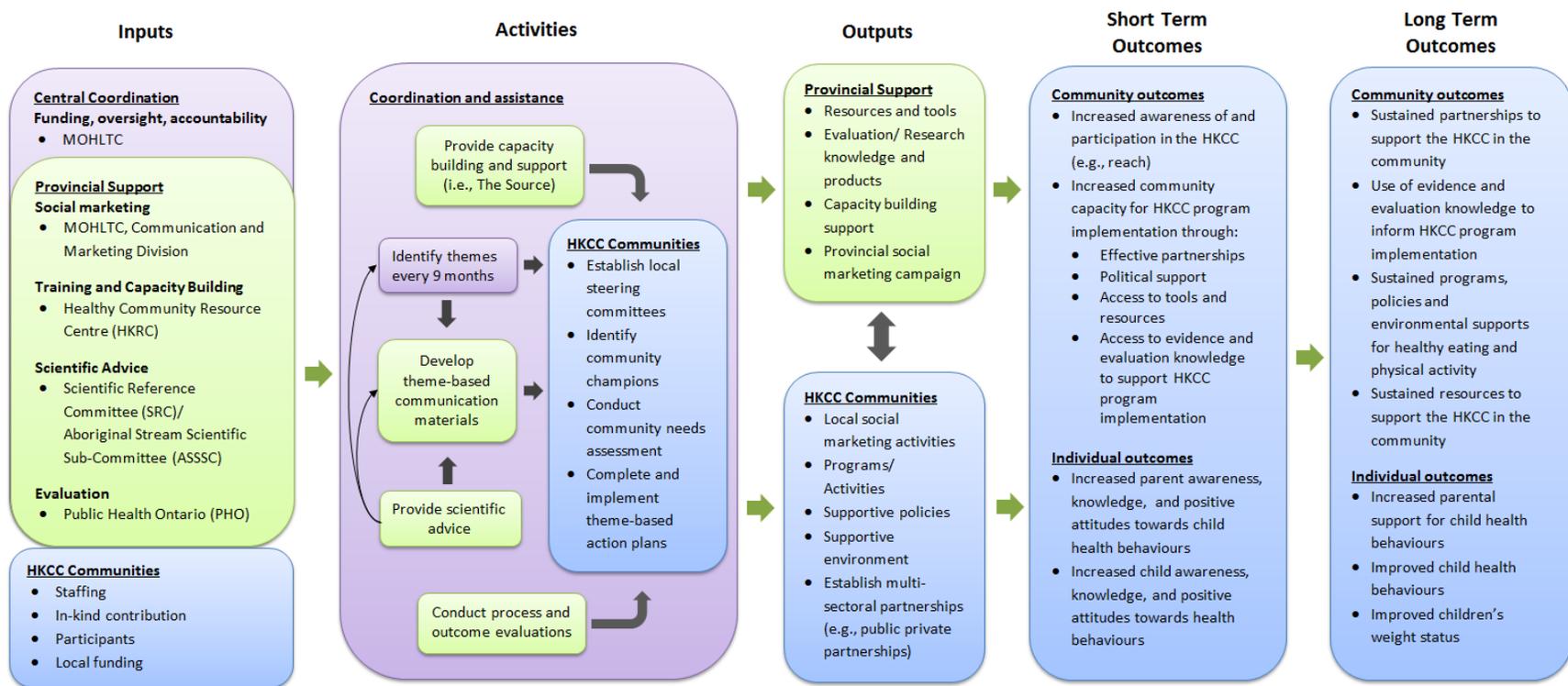


Figure 1. HKCC Program Logic Model

# PHO's Role in the Healthy Kids Community Challenge

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- Evaluation of the Healthy Kids Community Challenge (HKCC) is an important component of the overall program. Evaluation of the program will provide an understanding of whether and how the HKCC is working, to help inform HKCC program implementation, and to help strengthen the development of current and future programs targeting childhood overweight and obesity in Ontario and other jurisdictions.

As such, prior to the public announcement of the HKCC, the Ministry of Health and Long-Term Care (MOHLTC) requested a partnership with PHO to:

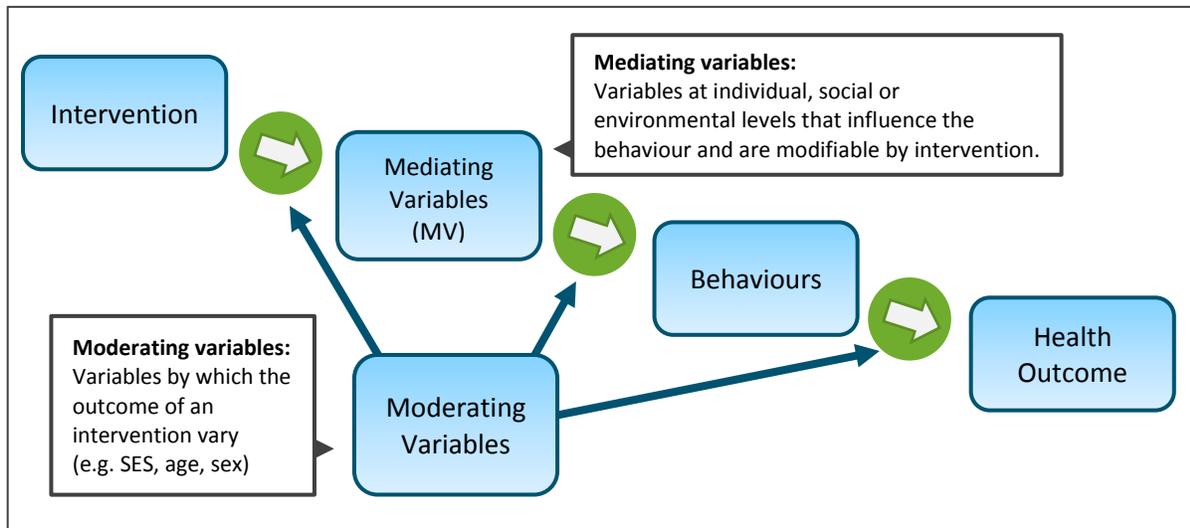
- Convene a Scientific Reference Committee (SRC) to provide scientific research, evidence, and advice for the HKCC and its evaluation; and,
- Undertake a provincial evaluation of the HKCC to determine the effectiveness of the initiative in the reduction of childhood overweight and obesity.

In addition, the Health Promotion and Capacity Building team within PHO is one of the four Healthy Kids Resource Centres (HKRCs). The HKRCs are available to provide support to communities wishing to undertake local evaluations.

**This document presents PHO's plan for evaluating the HKCC program at the provincial level.**

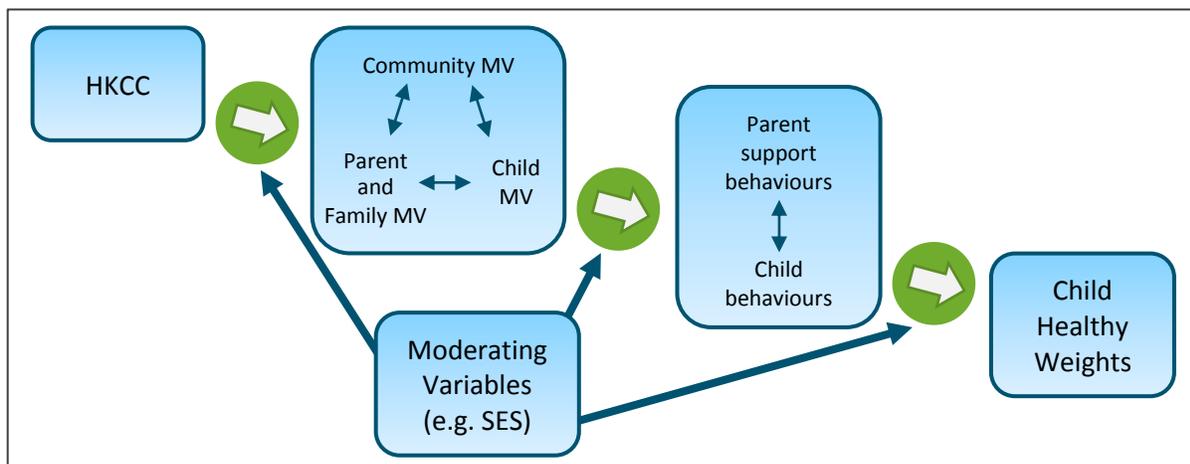
## Overall Evaluation Framework

This evaluation is guided by Baranowski’s Mediating Moderating Variable Model<sup>13</sup> (MMVM; Figure 1). Within this model, behaviours that determine health outcomes are influenced by mediating variables (i.e., factors that are modifiable) at individual (child, parent), interpersonal (family, peers), and environmental (community) levels. Moderating variables are the factors that affect the relationships between the intervention, mediating variables, behaviours, and outcomes. Moderating variables (e.g., socioeconomic status [SES]) are unlikely to be altered by the program.



**Figure 2.** Mediating Moderating Variable Model (adapted from Baranowski, 2011)

Figure 2 depicts the MMVM as applied to the HKCC evaluation. The primary health outcome is child healthy weights. This health outcome may be determined by the relationships between child health behaviours (i.e., physical activity, sedentary behaviour, healthy eating and sleep), which are in turn, influenced by parental support behaviours (e.g., taking part in physical activities with a child). Interrelated factors at the child, parent and family, and community levels may mediate, or affect the impact of the HKCC on child healthy weights.



**Figure 3.** MMVM as applied to the HKCC evaluation (adapted from Baranowski, 2011)

# PHO's Evaluation Plan

The HKCC is a multi-level, multi-component intervention that requires a multi-component evaluation plan.<sup>14,15</sup> Accordingly, PHO's evaluation plan includes three components:

- (1) An outcomes evaluation,
- (2) A process implementation evaluation,
- (3) An Aboriginal Stream evaluation.

The Aboriginal Stream evaluation reflects the evaluation needs of the six communities funded through Aboriginal Community Health Access Centres (AHACs) and Community Health Centres (CHCs). Each component is designed to include multiple data collection activities. All of these are presented in this document in terms of their target population, purpose, design, methods, timelines and the role of Local Project Managers (LPMs) in the HKCC evaluation.

## A. OUTCOMES EVALUATION

### Objectives

The objectives of PHO's outcomes evaluation are to determine the impact of the HKCC at the provincial-level on:

1. Child healthy weights.
2. Child health behaviours including physical activity, sedentary behaviour, healthy eating, and sleep.
3. Parental support behaviours.
4. Perceived barriers to health behaviours.
5. Awareness of and participation in the HKCC program.

The outcomes evaluation includes primary data collection activities as well as analysis of existing data sources that are required to address the specific objectives of PHO's evaluation. Note that, for the six Aboriginal Stream HKCC communities, a separate evaluation is being planned, and they will not be participating in the data collection activities listed below. (See [section C, HKCC Aboriginal Stream Evaluation](#))

### 1. HKCC Parent Computer Assisted Telephone Interviews (CATI)

- **Target Population:** Parents with at least one child under 18<sup>a</sup> years living in the household.

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<sup>a</sup> Please note that the target population for this activity was parents/guardians with at least one child under the age of 18 years living in the household. Following the completion of the survey, the target age range of the HKCC program changed to children aged 0-12 years.

- **Purpose:** To determine the impact of the HKCC on: parents' support for child health behaviours; perceived barriers to parental support; and, parental awareness of the HKCC program.
- **Design:** Repeat cross-sectional, administered to a random sample of parents residing in HKCC and non-HKCC communities.
- **Methods:** Computer Assisted Telephone Interviews (CATI).
- **Timelines:** Baseline data collected between February and March 31<sup>st</sup>, 2015 (completed); Follow-up data to be collected at or near program end.
- **LPM role:** Learn from and share the results as these become available.

## 2. HKCC School-Based Data Collection with Direct Measures - Pilot Study

- **Target Population:** Children in Grades 5 and 6, and their parents.
- **Purpose:** To develop and pilot-test tools for measuring the impact of the HKCC program on: child healthy weights; child health behaviours; the relationship between parental support behaviours and child health behaviours; and, child awareness and participation in the HKCC program. These tools are available upon request by contacting [hkccevaluation@oahpp.ca](mailto:hkccevaluation@oahpp.ca)
- **Design:** Administered in two schools in Ontario – one French and one English.
- **Methods:** Paper-and-pen survey administered in classrooms during class time, direct measures of child heights and weights conducted by trained PHO staff, online survey of parents.
- **Timelines:** Pilot completed in Spring 2016. Full implementation of the School-Based Data Collection activity is cancelled due to feasibility considerations. Piloted tools are available upon request by contacting [hkccevaluation@oahpp.ca](mailto:hkccevaluation@oahpp.ca)

## 3. Evaluating Health Behaviours and Self-reported BMI using the Ontario Student Drug Use and Health Survey (OSDUHS)

- **Target Population:** Children in Grades 7 and 8 in the OSDUHS database.
- **Purpose:** To use an existing data source (OSDUHS) to evaluate the impact of the HKCC program on: self-reported heights and weights, and related health behaviours such as physical activity, sedentary behaviours and healthy eating.
- **Design:** OSDUHS is a cross-sectional survey of Ontario students in Grades 7-12 collected every two years. It includes questions about health behaviours and self-reported height and weight to estimate body mass index (BMI). There are 20 cycles of OSDUHS available for analysis of trend data over time at the provincial level. PHO plans to use multiple cycles from before and after the HKCC program for this evaluation.
- **Methods:** We will compare and contrast the health behaviours and BMIs of students in schools within HKCC and non-HKCC communities using OSDUHS data.

- **Timelines:** Baseline comparison of HKCC and non-HKCC communities to be completed in 2016-17. Follow-up comparisons will be made at or near program end.
- **LPM role:** [Learn from and share the results as these become available.](#)

#### 4. Evaluating BMI using Electronic Medical Record Administrative data Linked Database (EMRALD)

- **Target Population:** Children aged 1-12 years in the EMRALD database with at least one measure of height and weight in 2014. This data is available through the Institute for Clinical Evaluative Sciences (ICES).
- **Purpose:** To use an existing data source (EMRALD) to evaluate the impact of the HKCC on directly measured BMI over time.
- **Design:** EMRALD is a database consisting of data obtained from electronic medical records in select primary care practices in Ontario.
- **Methods:** A comparative analysis of EMRALD data will be conducted by ICES analysts on PHO's behalf to evaluate differences between HKCC and non-HKCC communities.
- **Timelines:** Baseline comparison to be completed in 2016-17. Follow-up comparisons will be made at or near program end.
- **LPM role:** [Learn from and share the results as these become available.](#)

## B. PROCESS IMPLEMENTATION EVALUATION

### Objectives

The objectives of PHO's process implementation evaluation are:

1. To assess the extent to which:
  - HKCC program is *reaching its target audience* within and across HKCC communities
  - HKCC program has been *adopted as planned* within and across HKCC communities
  - HKCC program is being *implemented as planned* within and across HKCC communities
  - HKCC program is *maintained* over the course of the intervention, including plans to sustain these initiatives in the long-term
2. To understand *multi-level factors* contributing to HKCC program implementation at the program, community and provincial levels. The process implementation evaluation includes five data collection activities that seek to answer the above questions. The six Aboriginal Stream communities will only be participating in data collection activities 1. and 2. (below), as a separate evaluation is being planned (See C, [HKCC Aboriginal Stream Evaluation](#)).

### 1. Theme-based Action Plans and Project Activity Reports

- **Target Population:** Local Project Managers (LPMs).

- **Purpose:** To assess the progress of HKCC intervention implementation at the community-level (i.e., program adoption).
- **Design:** Repeated-measures.
- **Methods:** Theme-based action plan and project activity report are required by MOHLTC in conjunction with Transfer Payment Agreement reporting.
- **Timeline:** For theme-based action plan: approximately every 9 months (i.e., prior to each theme launch). For project activity report: Semi-annually after program launch.
- **LPM role:** Complete theme-based action plans and activity reports as required by MOHLTC (all communities). Learn from and share the results as these become available.

## 2. Local Project Manager Training Survey

- **Target Population:** LPMs.
- **Purpose:** To understand the usefulness of training sessions provided to LPMs, and the level of knowledge or skills acquired during training.
- **Design:** Repeated measures, administered before and after annual in-person training session.
- **Methods:** Paper-and-pen survey.
- **Timeline:** Annually (when in-person training for LPMs are held).
- **LPM role:** Complete training surveys, before and after training (paper-based).

## 3. Local Project Manager and Local Steering Committee Survey

- **Target Population:** LPMs and Members of the Local Steering Committee (LSC).
- **Purpose:** To explore key stakeholders' knowledge, attitudes and practices as they relate to the intervention, and perceptions of the implementation process.
- **Design:** Repeated measures.
- **Methods:** Online survey, distributed to LSC members via the LPM.
- **Timeline:** Annually after program launch.
- **LPM role:** Complete survey online and distribute survey link to LSC members through email. Learn from and share the results as these become available.

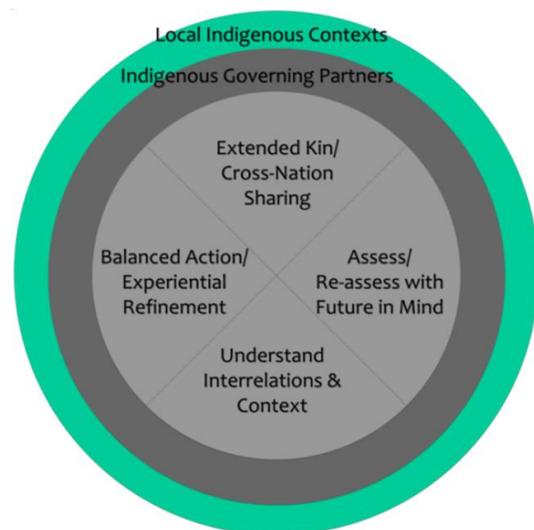
## 4. Local Project Manager and Local Steering Committee Member Interviews

- **Target Population:** LPMs and members of the LSC.
- **Purpose:** To provide a deeper understanding of the results from the Local Steering Committee Survey regarding implementation of the HKCC program.
- **Design:** Repeated measures with a sample of LSC members.
- **Methods:** Face-to-face or telephone interviews, depending on feasibility.
- **Timeline:** To be determined, twice over the duration of the intervention.

- **LPM role:** Participate in interviews, by telephone or in-person (depending on feasibility). Learn from and share the results as these become available.

## C. HKCC ABORIGINAL STREAM EVALUATION

Six of 45 communities participating in the HKCC are funded through Aboriginal Health Access Centres (AHACs)/Community Health Centres (CHCs). These communities are participating in a separate HKCC Aboriginal Stream evaluation, which is funded in part through a Canadian Institute for Health Research (CIHR) grant #145124, received February 29, 2016. The Aboriginal Stream Evaluation draws on a Community-Based Participatory Research (CBPR) approach, which involves the equitable active involvement of community representatives and organizations in all aspects and stages of the research process, resulting in ethical research that is beneficial for all individuals involved.<sup>16</sup> An Aboriginal Stream Scientific Sub-Committee (ASSSC), established in December 2014 as a subcommittee of the HKCC Scientific Reference Committee (SRC), helps to guide activities related to this component. A Population Health Intervention Research/ Implementation Science (PHIR/IS) Model (Smylie, 2015)<sup>17</sup> acts as a guiding framework.



**Figure 4.** Population Health Intervention Research/ Implementation Science (PHIR/IS) Model

### Aims and Objectives

The objectives of the Aboriginal Stream (AS) evaluation are:

1. To describe whether and how the HKCC program enhances and/or supports child well-being at the child, family and community levels within six AS communities. (Impact)
2. To investigate and document the characteristics and conditions of uptake, delivery, and maintenance of the HKCC program across the timeline of the intervention in the six AS communities. (Implementation)
  - **Design:** Community-based participatory approach; Multi-case study
  - **Methods:** Concept Mapping, a type of structured conceptualization used by groups to develop a conceptual framework to guide evaluation or planning.<sup>18</sup> will be undertaken with each community. Participants will be asked for advice on ways of measuring the outcomes in their communities.
  - Other data collection activities will be decided upon in partnership with Aboriginal community partners
  - **LPM role in Aboriginal Stream communities:** LPMs are encouraged to participate, and to mobilize and support the community to participate in the evaluation process.

## D. ROLE OF HKCC COMMUNITIES IN THE EVALUATION

- Through this document PHO is aiming to create awareness of the various elements of the provincial evaluation of the HKCC within communities, through LPMs, their local steering committees, and other stakeholders.
- PHO strongly encourages LPMs and LSC members to fully participate in, and actively support, the range of data collection activities that make up the provincial HKCC Evaluation. This is essential to ensure representation of all communities in HKCC data collection activities across the broad range of community contexts in Ontario.
- As evaluators, we are very keen to learn more about HKCC communities, and plans for local evaluation activities. Please feel free to contact us at [hkccevaluation@oahpp.ca](mailto:hkccevaluation@oahpp.ca) if you would be interested in sharing this information with us, and finding ways that we can harmonize data collection activities.
- PHO can also help support local evaluation efforts in HKCC communities in various ways, such as sharing information, resources, and tools with community partners, including: the parent CATI survey, parental support infographics, the student survey (Health BOSS), and the parent school-based data collection survey (Health ChAMPS). For more information, to access the tools or to discuss how PHO can support local evaluation efforts in your community, please contact us at [hkccevaluation@oahpp.ca](mailto:hkccevaluation@oahpp.ca).

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