Healthy Communities Policy and Capacity Building Initiative Evaluation

A Contribution Analysis

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Table of Contents

Executive Summary

Over a five year period (2012-2017), Hastings Prince Edward Public Health (HPEPH) developed and implemented a comprehensive health promotion approach that aimed to address elements of the local built environment that have the potential to influence healthy eating and active living (HEAL) behaviours. The Healthy Communities Policy and Capacity Building Initiative integrated strategies that

- educated municipal policy decision-makers, residents, and stakeholders on the relationship between the built environment and HEAL;
- engaged communities to build capacity to take action on developing policies and creating supportive HEAL environments; and
- supported municipal policy decision-makers in formulating policies for municipal official plans (OP) and master plans, that guided the development of supportive HEAL environments.

To evaluate the impact of this initiative, a contribution analysis (CA) was completed to assess how these strategies contributed to the development of relevant programs and policies with the potential to create supportive environments for HEAL in Hastings and Prince Edward Counties. Using the CA process, (1,2) data was assembled and synthesized from two program document reviews, four focus groups with community stakeholders, and a survey of municipal stakeholders to establish a performance narrative for the program. The performance results were validated against the postulated theory of change using the Relevant Explanation Finder framework to systematically validate the observed mechanisms and alternative explanations that influenced program outcomes.(2,3)

Several contributing factors were identified to have led to increased community capacity to take action on HEAL issues and the observed policy outcomes. These included the following:

- Collaborating with community and municipal stakeholders, taking an active role in community identified priorities, and building relationships between sectors.
- Influencing the availability of opportunities for policy action by developing community capacity through multi-sectoral collaboration and being prepared to capitalize upon predictable windows of opportunity to influence policy.
- Communicating messages that raise awareness about policy solutions to public health issues, in combination with community capacity building activities, to encourage increased engagement and commitment to participating in the policy process.
- Securing reliable financial and human resources.
- Sustaining involvement to support the evaluation of policies to inform future policy actions and related health outcomes.

Introduction

In Hastings and Prince Edward Counties, residents have higher rates of excess weight and increased hospitalization for chronic diseases such as diabetes, cardiovascular disease, high blood pressure, and cancer.(4) To address this concern, Hastings Prince Edward Public Health (HPEPH) implemented a comprehensive health promotion approach to address elements of community built environments that have the potential to influence HEAL behaviours that are linked to chronic health conditions.(5-8) The Healthy Communities Policy and Capacity Building initiative integrated strategies that

- educated municipal policy decision-makers, residents and stakeholders on the relationship between the built environment and HEAL;
- engaged communities to build capacity to take action on developing policies and creating supportive HEAL environments; and
- supported municipal policy decision-makers in formulating policies, for municipal official plans and master plans, that guided the development of supportive HEAL environments.

This evaluation study presents the results of a contribution analysis (CA) that assessed how these strategies contributed to the development of relevant programs and policies with the potential to create supportive environments for HEAL in Hastings and Prince Edward Counties. As there have been tangible HEAL policy outcomes since the inception of this initiative, understanding the effectiveness of the mechanisms of change that underpinned this initiative is a key source of evidence for the progression of healthy public policy advocacy and development.

Contribution analysis is a sequential, theory-driven approach used in impact evaluation that "explores attribution through assessing the contribution a programme makes to the observed results".(9) It is an evaluation approach used to understand how and why an initiative has contributed - or not - to the observed outcomes. This is achieved by inferring causality through the use of available data to articulate the performance story, verify the underlying theory of change, and assess the influence of alternative explanations and influencing factors that may have affected the observed results.(10) The application of the CA approach was an iterative, heuristic process in which the steps were revisited and strengthened throughout the investigation.(1,2) This report describes the culmination of the steps undertaken and provides the final results from the steps involved in conducting a CA in the sections identified below.

Step 1: Identify the cause-effect issue to be addressed by scoping the attribution problem and determine the cause-effect evaluation questions to be assessed. (Section III)
Step 2: Develop the postulated theory of change and the challenges to it, including alternative explanations. (Section II)
Step 3: Gather existing evidence on the theory of change. (Sections IV, V)
Step 4: Assemble and assess the contribution claims and their challenges. (Section VI)
Step 5: Gather new evidence from the implementation of the intervention. (Sections IV, V)
Step 6: Revise and strengthen the performance results narrative. (Sections IV, V)
Step 7: Assess and assemble the contributions. (Sections VI, VII)

Program Description

Background

In 2012, HPEPH prioritized the development of municipal built environment policies to create supportive community environments for HEAL, and initiated a planning process to guide actions (Figure 1). To initiate this work, an internal Built Environment Working Group comprised of subject matter experts in the areas of injury prevention, environmental health, nutrition, and physical activity, was established to guide the advancement of healthy built environment policy development strategies. A foundational accomplishment of this working group was the creation of the *Building Complete and Sustainable Communities: Healthy Policies for Official Plans* (11) document, which provided an evidence-informed framework that assessed healthy built environment issues and directed options for both community engagement and municipal policy development. The policies and strategies listed in this document offered guidance on planning for urban and rural areas of Hastings and Prince Edward Counties, and suggested opportunities for municipalities to provide leadership and for multi-sectoral collaboration in the design of healthy built environments in relation to the following five topics:

1. Sustainable & Accessible Transportation
2. Access to Recreation in Natural and Built Environments
3. Local Food Systems & Environments
4. Access & Exposure to Tobacco & Alcohol
5. Social Interaction & Sense of Community

This document was used by HPEPH to provide concrete recommendations to municipalities on a variety of land-use planning policies. These opportunities to directly influence policy, included two municipal official plans and two active transportation plans.

Transportation, recreation, and food environment topics were advanced with dedicated funding from the Ministry of Health and Long-Term Care (MOHLTC) Healthy Communities Fund, leading to the establishment of the Healthy Communities Policy and Capacity Building initiative. Using the framework developed by the Built Environment Working Group as a foundation, the initiative aimed to strengthen local action for policy development and build community capacity for the creation of supportive HEAL environments in Hastings and Prince Edward Counties. The development of the initiative was led by HPEPH and guided by a Strategic Advisory Committee consisting of key stakeholders with an interest in the advancement of local HEAL policy.

Figure 1

Healthy Communities Policy and Capacity Building Initiative timeline

Policy Action Areas

The Strategic Advisory Committee began the development of this initiative by conducting a situational assessment that explored municipal and community readiness for HEAL policy development which engaged a range of stakeholders to identify priorities was conducted. (12,13) Three policy action areas (PAA) were identified. From 2013-2017, education, community capacity building, and policy development activities were conducted in these areas:

- Bicycle friendly communities in the cities of Belleville and Quinte West
- Non-motorized trails in North Hastings
- Community gardens in Hastings Prince Edward Counties

Theory of Change

The theory of change for the Healthy Communities Policy and Capacity Building initiative was revised to include further explanation of the theoretical assumptions and potential alternative explanations that may have influenced the results (Figure 2).

Figure 2

Healthy Communities Policy and Capacity Building Initiative theory of change

Resources	MOHLTC Healthy Communities Fund, HPEPH Program Funds, Public Health Dietitian, Health Promoter, HPEPH Built Environment Working Group		

Assumptions

Reliable financial and human resources are allocated for the development and delivery of planned intervention activities

Alternatives

Reliable financial and human resources are not allocated for the development and delivery of planned intervention activities

Activities	**Education & Awareness** Public engagement campaign Presentations to community groups and municipalities Collaborative planning workshops	**Community Capacity Building** Collaborative planning workshops Helped access resources Suggest policy formulation Encourage Implementation	**Policy Development** Recommend content for policy Encourage implementation of policy Suggest policy formulation

Assumptions

Intervention activities are delivered as planned

Alternatives

Intervention activities are not delivered as planned

Audience	Community partners (non-profits, businesses) Municipal policy makers (elected officials, staff) Residents		Municipal policy makers (elected officials, staff)

Assumptions

Audiences receive the education information and understand the role of policy in creating supportive HEAL environments

Audiences receive appropriate support and encouragement for taking action on HEAL policy issues

Alternatives

The education information is not received by audiences; it is already known, or not well understood

Appropriate support and encouragement is not received by audiences for taking action on HEAL policy issues

Short Term	Increased understanding of how municipal policies and community environments affect supportive environments for HEAL Increased awareness of opportunities within the community that support HEAL	Increased capacity among community partners and municipal policy makers to identify issues and solve problems to support HEAL	Increased understanding of the health implications and evidence-based best practices in HEAL policy

Assumptions

Audiences with increased capacity will influence the availability of opportunities to advance HEAL policy

Opportunities to participate in the formulation of municipal policies related to HEAL become available

HPEPH and audiences collaborate to establish and implement of policies that create supportive HEAL environments

Alternatives

Audiences do not have adequate capacity influence the availability of opportunities to advance HEAL policy

Opportunities to participate in the formulation of municipal policies related to HEAL do not arise or are not acted upon

HPEPH and audiences do not collaborate to establish and implement policies that create supportive HEAL environments

Medium Term	Increased participation by residents in community initiatives that support HEAL	Community partners and municipal partners collaborate on the establishment of new policies and initiatives that create a supportive HEAL community environment	Policy makers develop and implement municipal policies that guide the development of community environments that support HEAL

Impact	Residents live in communities that provide affordable and accessible opportunities for HEAL

Strategies

The strategies undertaken across the PAAs to achieve the objectives in Table 1 included:

1. **Education & Awareness:** The development and implementation of a multi-component communication strategy to increase understanding among decision-makers and residents of the relationships between municipal policy, the built environment and opportunities for HEAL. The messaging, aimed at increasing the salience of HEAL policy issues, was based on the FrameWorks Institute research on effective communication strategies about community health issues related to food and fitness.(14)

   Communication activities focused on developing understanding of a Health in All Policies approach to policy decision-making and framed HEAL as a community health issue influenced by socio-environmental determinants, in contrast to individual lifestyle factors. Activities included a region-wide multi-media public engagement campaign, topic-specific community workshops, as well as presentations to municipal councils and community groups which encouraged endorsement of the Health in All Policies approach through signing a Healthy Communities Declaration. This declaration offered a resolution for agencies to work towards building a healthy community and establishing processes and partnerships for adopting a multi-sectoral Health in All Policies approach to decision-making.

2. **Community Capacity Building:** Based on a strengths-based model of community empowerment and capacity building (15,16), HPEPH facilitated multi-sectoral mobilization activities that included the implementation of community planning workshops related to the PAAs. These activities resulted in the establishment of the Bay of Quinte Bicycle Friendly Communities Working Group, the North Hastings Non-Motorized Trail Master Plan Working Group, and initiation of the Community Gardens Network of Hastings Prince Edward.

3. **Policy Development:** Several municipal policy development activities were undertaken by HPEPH with municipalities as land-use planning policy windows became available. Specific evidence-informed policy recommendations and content suggestions were provided to facilitate the integration supportive HEAL policies.(8,11,17) These included the following:

   - Hastings County Official Plan

   - County of Prince Edward Official Plan

   - City of Belleville Transportation Master Plan

   - City of Quinte West Active Transportation Master Plan (ATMP)

   - County of Prince Edward Community Gardens Guidelines

Table 1

Summary of strategies and policy action area objectives

Strategies	Healthy Eating	Active Living

Education & Awareness	• Increase the knowledge and commitment of municipal councils and community stakeholders to using a Health in All Policies approach to policy decision-making
	
	• Increase awareness among municipal councils of how municipal policies and programs influence a resident's opportunity to access healthy food
	
	• Increase awareness among community stakeholders and residents about the living conditions and environments that influence a resident's opportunity to access healthy food
		• Increase awareness among municipal councils of how municipal policies and programs influence a resident's
		  - decision to use active transportation and
		  - ability to participate in active recreation in built and natural settings
		
		• Increase awareness among community stakeholders and residents about the living conditions and environments that influence a resident's
		  - decision to use active transportation and
		  - ability to participate in active recreation in built and natural settings

Community Capacity Building	• Mobilize community driven programs and promotion activities that improve access community gardens	• Develop partnerships and secure funding in North Hastings to develop a Non-Motorized Trails Master Plan (NMTMP) • Mobilize community driven programs and promotion activities that improve access to safe opportunities for cycling • Cycling is increasingly valued by residents, municipal councils and community stakeholders as a safe and efficient mode of transportation
Policy Development	• Support municipalities in the creation of guidelines to facilitate the development of community gardens on public lands • Increase the number of policies in municipal official plans that facilitate the development of supportive community environments for healthy eating	• Establish and implement evidence-informed Active Transportation Plans in Belleville and Quinte West • Establish and implement a Non-Motorized Trails Master Plan in North Hastings • Increase the number of policies in municipal official plans that facilitate the development of supportive community environments for active living

III.   Evaluation Questions

The CA approach was used to explore the following evaluation questions:

1. To what extent have the education and awareness activities contributed to the understanding municipal elected officials have of

    a. the influence of municipal policies on a resident's decision to use active transportation; to access healthy local food; and participate in active recreation in built and natural settings?

    b. the concern among residents for active transportation; to access healthy local food; and to access recreation environments?

    c. the aspects of the HEAL environment in their community?

2. Have the education and awareness activities contributed to the development of HEAL policies?

3. To what extent have the capacity building activities contributed to the capacity of communities to develop policies that influence the creation of supportive environments for HEAL?

4. To what extent have the policy development activities influenced municipal built environment policies related to HEAL?

IV.   Methods

Data Collection and Analysis

A concurrent mixed-method approach was used to gather evidence on the effectiveness of the different components of the Healthy Communities Policy and Capacity Building initiative.(18)

Survey

A pre- and post-intervention survey assessed the level of change in perceptions of HEAL policy and environments among elected officials. The pre-intervention survey was conducted prior to the implementation of the education intervention strategy, and the post-intervention survey was sent 18 months following completion. Changes in knowledge and beliefs regarding the role of municipal policy in shaping HEAL environments, and perceptions of the HEAL environments in their communities were assessed. Survey results were analysed using descriptive methods to compare changes in knowledge and attitudes over time.

Focus Groups

Three focus groups were conducted by an independent researcher to assess the processes and impacts of the community capacity building activities in each PAA. Each focus group was comprised of stakeholders involved in the working groups for each of the three PAAs. Focus group discussions were framed by the methods for evaluating community capacity proposed by Gibbon, et al.(19) and used the validated community capacity measurement tool and methodology developed by MacLellan-Wright, et al.(20) Through a facilitated discussion to

build consensus, participants were asked to rate how the PAA projects influenced community capacity and describe contributions of HPEPH to these outcomes. A fourth focus group was conducted with two program staff responsible for leading the HEAL initiatives to provide insights into the contextual factors that influenced initiative's outcomes. All focus group interviews were recorded and transcribed, and a thematic analysis was completed.

Document Reviews

Two focused document reviews were completed. First, local research and workshop proceedings reports, presentations, letters, policy analysis reports, working group terms of reference documents, and internal operational plans that were related to the Built Environment Working Group and Healthy Communities Policy and Capacity Building Initiative Documents were assessed and categorized based on their association to the HPEPH healthy built environment topics, audiences engaged with, type of advocacy activity undertaken, documented contextual factors and outcomes relative to education, community capacity or policy development strategies. (Appendix 1) The second document review involved a methodical assessment of the policy recommendations provided by HPEPH to two municipalities during their municipal official plan review process and the associated policy outcomes.

Data Interpretation

A central principle of CA is the critical assessment of the theory of change, which includes an analysis of the assumptions, alternative explanations, and the effect of potential influencing factors on program outcomes. Mayne (2011, 2012) asserts that it is reasonable to conclude that a program is contributing to the desired outcomes if these four conditions are met (1,21):

1. Plausibility: Is the theory of change plausible?
2. Fidelity: Has the program been implemented with high fidelity?
3. Verification of the Theory of Change: To what extent are the key elements of the theory of change confirmed by evidence?
4. Identification and examination of influencing factors and alternative explanations: To what extent have other influencing factors been identified and accounted for?

To assess these four conditions, the analyzed data was assembled into a performance narrative of the observed results and interpreted through consensus among program stakeholders and two independent contributors. Through an iterative process, the plausibility of the theory of change, the impact of influencing factors, and alternative explanations were assessed using an adaptation of the systematic process developed by Lemire et al.(2,3,22) The Relevant Explanation Finder framework was used to critically assess the observed performance of the initiative against the theory of change and to draw conclusions about its contributions to observed outcomes.

V. Performance Results

Implementation Activities & Audiences

The activities that were implemented throughout the initiative, identified through the document reviews and validated by focus groups are depicted in Figure 3. The identified activities were substantiated in operational plans as being delivered as intended. The intensity of education and awareness activities was focused on municipal councils, with presentations being made to all 18 municipal councils to educate policy decision-makers on the principles of Health in All Policies in relation to HEAL.

Figure 3

HPEPH engaged with MUNICIPAL AUDIENCES most often

Type of Activity	Audience								Number of Activities	
	Band council	Residents	Community non-profit	Granting agency	Municipal committee	Multiple sectors	Municipal staff	Municipal council		
Provided education									0	
Led collaborative planning									1 to 5	
Suggested policy formulation									6 to 10	
Recommended content for policy									11 to 15	
Encouraged policy implementation									16 to 20	
Helped access resources									21 to 25	

To distinguish the influence of the specific activities undertaken on policy, they were aligned with the heuristic stages of policy development (Figure 4).(23,24) While collaborative planning was undertaken throughout the entire process, providing education and suggesting the need for policy formulation, were the aim in the issue framing and agenda setting stages. Suggestions provided to municipalities to initiate policy formulation were made following the implementation of education activities and collaborative planning in support of policy development.

Eleven follow-up presentations were made to municipal councils in collaboration with community stakeholders after the implementation of the public education campaign. The follow-up presentations focused on PAAs that were identified as priorities for respective municipalities. These presentations provided evidence on community needs and resident perspectives, partnerships to support policy development, and suggested policy formulation in the following areas:

- Development of guidelines to facilitate the development of community gardens on public lands in the County of Prince Edward. (1 presentation)

- Development of a Non-Motorized Trails Master Plan in North Hastings. (8 presentations)
- Findings of the Bicycle Friendly Workshop planning session, and suggestion to develop an Active Transportation Master Plan in the City of Quinte West. (1 presentation)
- Findings of the Bicycle Friendly Workshop planning session and suggestion to implement of the Cycling Network in the City of Belleville, including the establishment of an Active Transportation Committee. (1 presentation)

Community stakeholders and HPEPH made educational presentations to community agencies across multiple sectors to build support for the respective PAAs. These included engagements with an Indigenous community Band Council to build a relationship for collaboration on the development of a non-motorized trails system on traditional lands. This activity led to ongoing participation and involvement in the advancement of the Non-Motorized Trails in North Hastings PAA.

Figure 4

Policy ADVOCACY ACTIVITIES undertaken throughout the policy development
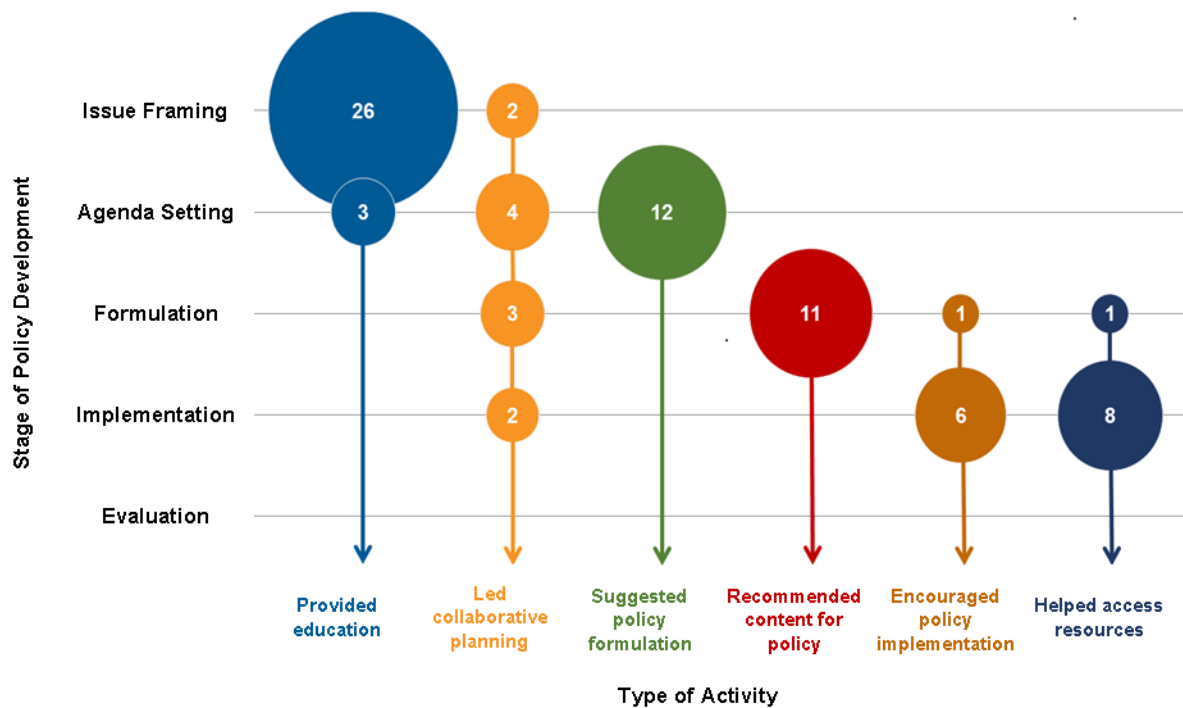
HPEPH's Built Environment Working Group provided recommendations on content for five land-use planning policies: 1) the County of Prince Edward Official Plan, 2) Hastings County Official Plan, 3) the City of Quinte West Active Transportation Master Plan, 4) the City of Belleville Transportation Master Plan, and 5) the City of Belleville's Parkland Policies for New Subdivisions.

Additionally, HPEPH provided seven letters of support for municipalities and community agencies seeking funding for program or policy implementation related to the PAAs. They also worked collaboratively with community stakeholders to write three grant applications, including work to secure funding for the development of a community garden, cycling skills education programs, and helped secure funding for the development of the North Hastings Non-Motorized Trails Master Plan.

Offering municipalities recommendations on content for written policies was exclusively done during the policy formulation stage. More supportive activities, such as encouraging implementation and accessing resources, were done in the implementation stages. To date, there have been no activities undertaken to support the evaluation of HEAL policies as the process has not yet matured to this stage.

The review of program documents and operational plans found that funding for the implementation of the activities was provided by both external sources (MOHLTC Healthy Communities Fund) and internal HPEPH program funds. External sources were used to support the formative research and community engagement required to identify the PAAs, establish and implement the education and awareness strategy, support collaborative planning workshops, and to supplement the cost of developing tools to guide policy content recommendations for municipal policy documents. Internal HPEPH program funds were used to develop tools to guide content recommendations on municipal policy documents, supplement the costs associated with collaborative planning, and to complete the education and awareness activities following the conclusion of the Healthy Communities Fund.

Education & Awareness Outcomes

The results of the pre- and post-intervention survey of elected officials found that the indicators of change in belief and knowledge of the role of policy in creating supportive environments for HEAL were unchanged. In 2017, 84% of municipal elected officials believed that they could influence the health of residents (Figure 5).

Following the delivery of municipal education interventions, there remained a high level of understanding among elected officials of the influence of policies on opportunities for recreation, and a moderate understanding on the influence of policy on opportunities for active transportation. Beliefs among elected officials regarding the influence of policy on residents' ability to access healthy local food and residents' ability to grow and share food remained moderate and were mostly unchanged following the education interventions.

Figure 5

Elected officials' perception of influence over health

8 out of 10

Elected officials believe they can influence the health of people in their community.

Elected officials were asked about their opinion of how residents felt about aspects of HEAL environments before and after the education and awareness strategies. Compared to healthy eating, access to recreation and active transportation were viewed as a greater concern both before and after the education interventions. Although the beliefs among elected officials remained consistent in the pre- and post-intervention assessments, there were interesting regional patterns that may prove useful for future program planning and priority setting. These results are detailed in Appendix 2.

Community Capacity Building Outcomes

The Healthy Communities Policy and Capacity Building initiative defined community capacity building as increasing the ability of community groups "to define, assess, analyze and act on health (or any other) concerns of importance to their members".(16) Relying upon the domains of community capacity described by MacLelland et al.(Table 2) (20), the PAA focus groups achieved consensus on the outcomes of the capacity building activities of HPEPH related to each domain (Figure 6).

Stakeholders involved in the community gardens PAA identified that HPEPH made important contributions to facilitating the capacity domains of participation, sense of community, asking why, and skills and knowledge, but did not contribute to obtaining resources. Even though three municipally supported community garden projects were established during the intervention period, not being able to obtain resources ultimately affected the ability of this working group to provide ongoing support throughout region, to the point where it is not presently functioning as envisioned.

The Bicycle Friendly Community stakeholders noted that HPEPH made contributions across all community capacity domains, with less influence on leadership and asking why. The Bicycle Friendly Community stakeholders were collectively involved in the development of the Transportation Master Plan in the City of Belleville and the Active Transportation Master Plan in the City of Quinte West. They continue to collaborate to promote bicycle friendly communities through the annual Bay of Quinte Bike Month campaign, and in the development and implementation of community-wide and individual cycling education initiatives.

Table 2

Domains of Community Capacity

Participation: The active involvement of people in improving their own community's health and well-being. Participating in a project means the target population, community members, and stakeholders are involved in project activities, such as making decisions and evaluation.

Leadership: Developing and nurturing both formal and informal local leaders during a project. Effective leaders support, direct, deal with conflict, acknowledge and encourage community members; voices, share leadership and facilitate networks to build on community resources. Leaders bring people with diverse skills sets together and may have both interpersonal and technical skills. Finally, an effective leader has a strategic vision for the future.

Community Structures: The smaller or less formal community groups and committees that foster belonging and give the community a chance to express views and exchange information. Examples of community structures include church groups, youth and seniors groups, and self-help groups.

Outside Agent: The often important links between communities and external resources. Their role is especially important near the beginning of a new program when the process of building new community momentum may be triggered and nurtured. The outside agent increasingly transforms power relationships between themselves and the community such that the community assumes increasing program authority.

Asking Why: Refers to a community process that uncovers the root causes of community health issues and promotes solutions. The community comes together to critically assess the social, political and economic influences that result in differing health standards and conditions. Exploration through "asking why" helps refine a project to reflect the community needs.

Obtaining Resources: Finding time, money, leadership, volunteers, information and facilities both from inside and outside the community.

Skills, Knowledge, Learning: Qualities of the project team, the target population, and the community that the project team uses and develops.

Link with Others: Linking with others refers to linking your project with individuals and organizations. These project links help the community deal with its issues. Examples include creating partnerships or linking with networks and coalitions.

Sense of Community: Sense of community, within the context of a project, is fostered through building trust with others. Community projects strengthen a sense of community when people come together to work on shared community problems. Collaborations give community members confidence to act and courage to feel hopeful about change.

The non-motorized trails stakeholders felt that HPEPH made important contributions across all community capacity domains. Currently, the leadership and management of this initiative has been assumed by a non-profit organization governed by the region's seven municipalities, a Non-Motorized Trails Master Plan has been developed, and the implementation activities are forthcoming.

Figure 6

Community capacity was STRENGTHENED more for Active Living issues than for Healthy Eating issues
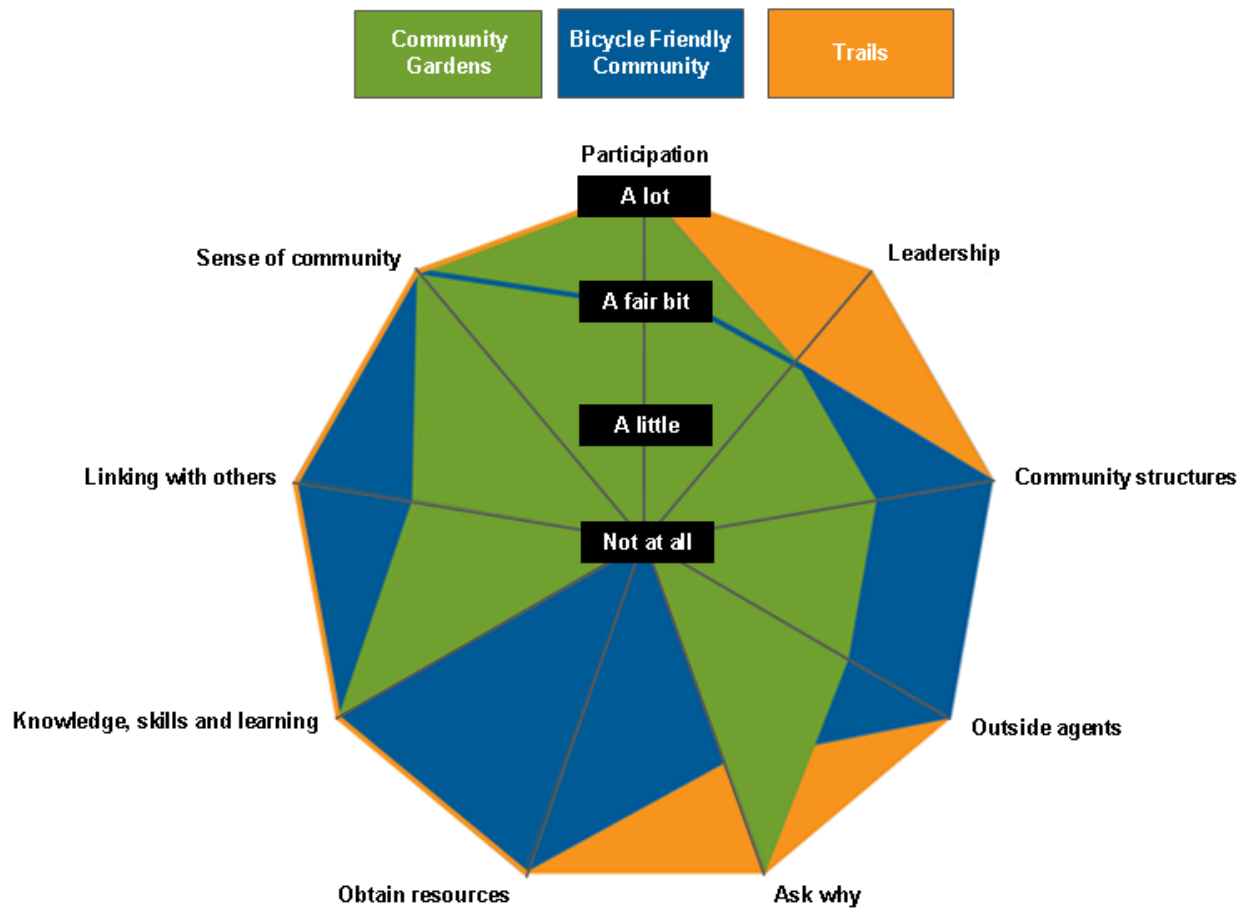
Each PAA focus group was asked to describe how HPEPH contributed to developing their capacity to take action on the PAAs. A thematic analysis of the focus group discussions identified four central themes that describe approaches taken by HPEPH that contributed to increased community capacity (Figure 7). These included building relationships across sectors, taking an active role in community identified issues, using a collaborative approach, and sustaining involvement in projects. The specific activities that helped build community capacity identified during the PAA focus groups, such as workshops and presentations, were confirmed by the implementation activities identified in the program document review.

Figure 7

Actions that STRENGTHENED community capacity for action on HEAL issues

Building Relationships

The strongest theme that emerged from the focus groups was the role that HPEPH took in building relationships among community sectors to harness support and resources needed to move forward. Building relationships across sectors helped create momentum by bringing like-minded people together to share perspectives, explore the underlying causes of the issues, and raised awareness to create a base of support for advancing the policy issues.

> "Face-to-face interaction and spaces for that type of thing to happen are the most important. When I think to all of this, none of the big, none of the pivotal moments that have moved forward have happened via something online. All happened through in-

person meetings, where those like-minded people were in the same room together and the way that ideas cross-pollinate in that setting is worth its weight in gold. It's something I'm a huge proponent of. The more public health can do that, especially around designing and building healthier communities and healthier habits, the more effective public health will be, and the more effective the partners that public health continues to work with will be." (Bicycle Friendly Communities)

The Bicycle Friendly Communities stakeholders pointed out that having HPEPH to build networks and facilitate discussions surrounding the evidence helped the community develop a collective understanding of the issues being addressed.

"The presentations that [Public Health] had done to Council, the new skills and knowledge…doing surveys and understanding what the data is telling you then bringing everyone together so we can discuss what the information is saying, so we can all gain a better level of data analysis together." (Bicycle Friendly Communities)

Hastings Prince Edward Public Health played an important role in bringing key stakeholders together to provide credibility to the project and initiating the momentum needed to move forward.

"[The Ontario Trails Council] was brought in to talk about trail master plans and how they worked. The same was with the Algonquin's, they were brought in to talk about what their processes were, and what they would like to see. It was just bringing people to the table…it wasn't until [Public Health] invited them to the table that it became more official." (Non-Motorized Trails)

"We have our own little networks and we are good at community development and all of that, but when you come into some of that higher level, we need your sector at the table… to represent what would help us network and form links with those larger sectors, public health is who government is going to listen to. You know… and educational groups and law enforcement and all of those…" (Community Gardens)

However, the community gardens stakeholders described that it would have been helpful for HPEPH to have provided ongoing opportunities for collective learning and relationship building to keep the energy moving forward.

"I think the problem is it maybe because that it was a one-time thing and it has kind of lost its [momentum]." (Community Gardens)

Taking an Active Role

Having HPEPH as active participants in advancing issues that fell outside of the conventional public health sector helped to provide the structure needed for community stakeholders to become involved. Since the community stakeholders were mostly volunteers representing non-profit organizations with limited time and access to resources such as research and funding, HPEPH helped increase their abilities by facilitating the development of organizational structures and providing direction in project planning and management.

"Just having that dedicated person that has the time because they are a paid resource, it's very difficult for volunteers to pull this off and [public health] did an amazing job. I think that was the main thing." (Non-Motorized Trails)

"We had tremendous support, even registering for non-profit status, and then just kind of focusing in on our long-term and short-term objectives, so having the back bone support was really critical." (Community Gardens)

"We became a not-for-profit, and public health supported that, and we couldn't have applied for the grant if it wasn't for that. You had to be a not-for-profit." (Bicycle Friendly Communities)

Hastings Prince Edward Public Health took leadership in the planning and management of collaborative projects by organizing agencies and stakeholders within the community to align assets and facilitate collective action on the policy issues.

"I don't think anyone had run a bike month before, no one had planned a mayor's ride before, no one had done a community survey before, and most of the folks around the table hadn't been involved in input for policies before…I think the amount of capacity that has been built thanks to the initiative has just been huge." (Bicycle Friendly Communities)

"Planning was a big one, and evaluation, because of the way that public health laid things out we knew where we were at and where we needed to take some focus and shift it a little bit." (Non-Motorized Trails)

Hastings Prince Edward Public Health provided access to local data and research that helped to move issues on to the political agenda and provided evidence to community stakeholders that helped secure funds to advance relevant PAA programs and policies.

"The best practices in terms sharing like the healthy built environment research and sharing new elements like complete street policies and those types of tools. The degree to which the [Public Health] helped to make the case in an effective way is really hard to overstate…you got access to a resource that most communities don't have access to, but at the end of the day, it was the research and information coming out of [Public Health] that made the case for Belleville, and PEC, and Hastings County." (Bicycle Friendly Communities)

"Facilitation and accessing other resources like community funds, being a major partner if we are applying for funds would be helpful." (Community Gardens)

A final, important contribution of having HPEPH involved in community projects was that they brought credibility to the issues to be addressed.

"…it builds credibility within the community that you have a strong partner and that back bone support from Public Health and without that it is very difficult." (Community Gardens)

Using a Collaborative, Empowering Approach

Being collaborative and empowering communities to achieve authority of their identified local priorities was essential for building capacity. HPEPH's role in facilitating discussions that helped group members identify their roles and providing opportunities for individuals and groups to learn new information, share tasks, and take leadership in shaping the direction of the projects, were perceived as effective by community stakeholders.

[Public Health] did a lot of coaching and asking questions and making us understand where we fit into the roles. [They] made sure we stayed away from things that we shouldn't be doing and kept us at the level we needed to by in order to get the first steps down…It's one thing to encourage and support but it wasn't rushed. [Public Health] waited till everybody got to the same point before mov[ing] onto a different spot." (Non-Motorized Trails)

"Nothing was ever done by just one person. There was always a sharing of labour and there was always a sharing of knowledge. It was very collaborative and as people stepped up and took leadership roles and shared their experiences and their knowledge, other people learned from it. And I think that was really important." (Bicycle Friendly Communities)

"The Bike Summit was step 1, the first Bike Month and the unintended consequences of that. Providing that space for municipal representatives to become leaders within the community and providing that space for the police department to take a leadership role and providing that space for Belleville on Bikes to really step into more of a program leadership role. The BFC workshop, [Public Health] helped to bring to Belleville and Quinte West and that served as the catalyst for Bike Quinte to really get their feet under them. The list just goes on and on… the number of seeds of leadership that have been shown by [Public Health] is great and probably missing 10 of them." (Bicycle Friendly Communities)

However, there were few occasions where HPEPH took on a more authoritarian approach. Unexpected decisions were made that modified the focus of the region-wide multi-media public engagement campaign and HPEPH's level of participation in the Non-Motorized Trails project decreased without adequate consultation and communication. This lapse in communication and collaboration failed to consider the priorities and contributions of community stakeholders.

"…and so everything was done and posters were being hung and public health pulled the whole project. There was no reason given and without informing any of us." (Community Gardens)

"Be a true community partner, using your resources for the good of the community but with the community partner participation as an equal partner. Just because you do have resources and power, use that appropriately…" (Community Gardens)

Failing to engage in joint discussions before making critical decisions that changed the direction of the projects weakened collaborative activities between HPEPH and community stakeholders and slowed the momentum that was created.

"…we definitely knew when [public health] wasn't here. It was a little bit more of a struggle to keep things on track." (Non-Motorized Trails)

Sustaining Involvement in Activities

All of the focus groups felt that HPEPH played a pivotal role in initiating and supporting the advancement of the PAAs. Yet, they acknowledged that involvement from HPEPH needs to be sustained to ensure that progress continues.

"I think the activities that public health can undertake to help increase community's authority over the project is to continue to provide that ongoing support for the capacity to continue to be developed within those agencies so that they can reach a level of maturity and resourcing that they are actually able to take it on. Because that's the biggest challenge right now, if public health steps away from a project, other agencies don't necessarily have the resourcing to effectively continue that project without relying very heavily on volunteer hours and sometimes that's the challenge." (Bicycle Friendly Communities)

"There was a lot of momentum from that workshop, but then as far as taking action on the issues in the community, I think that is where they kind of went the opposite. So initially absolutely, everybody was excited. We had a great turnout for both of our events last year. You know, galvanizing that momentum yes, but sustaining it no... At this point in time because we lost some of the support, it has been very difficult to manage because we are a very small board." (Community Gardens)

Policy Development Outcomes

Policy Action Areas

Since the initiation of the Healthy Communities Policy and Capacity Building initiative, municipal decisions have been made to advance the three PAAs. Hastings Prince Edward Public Health, together with the municipalities and PAA working groups, worked collaboratively to advance and support the following municipal resolutions guidelines and policies:

1. North Hastings Non-Motorized Trails Master Plan, 2018
2. City of Quinte West Active Transportation Master Plan, 2018
3. City of Belleville Transportation Master Plan, 2014
4. City of Belleville Cycling Network Implementation Plan, 2016
5. Establishment of the City of Belleville Active Transportation Committee, 2016

6. The designation of municipal lands for community gardens in:
   - City of Quinte West, 2016
   - County of Prince Edward (Picton and Wellington), 2015
   - Town of Bancroft, 2015
7. Healthy Communities Declaration endorsed by 16 municipalities and 23 community organizations, 2014-2016

Official Plans Policies

In addition to the PAA activities, HPEPH worked in partnership with municipalities to advance the development of municipal official plan policies that would enable the development of supportive community environments for HEAL in two municipalities, Hastings County and the County of Prince Edward. *The Building Complete and Sustainable Communities: Healthy Policies for Official Plans* document served as the framework to facilitate the development of systematic feedback regarding healthy built environment topic areas, including HEAL policies.(11) The policy document review identified the number of policies recommended by HPEPH and those accepted by the municipalities in subsequent drafts of the official plans (Figures 8 and 9).

The County of Prince Edward

The recommendations offered to the County of Prince Edward during the official plan review process resulted in substantial improvements to policies that influence the topic of Local Food Systems & Environments. While the initial draft offered some guidance on sustainable agricultural practices and economic development opportunities related to local food production, HPEPH's recommendations helped to address all components of the food system, such as food processing and disposal sectors. Accepted policy recommendations offered additional support for the development of food hubs, food policy councils, and urban land uses for food production and distribution (Figure 8).

Figure 8

Official plan policy changes, County of Prince Edward
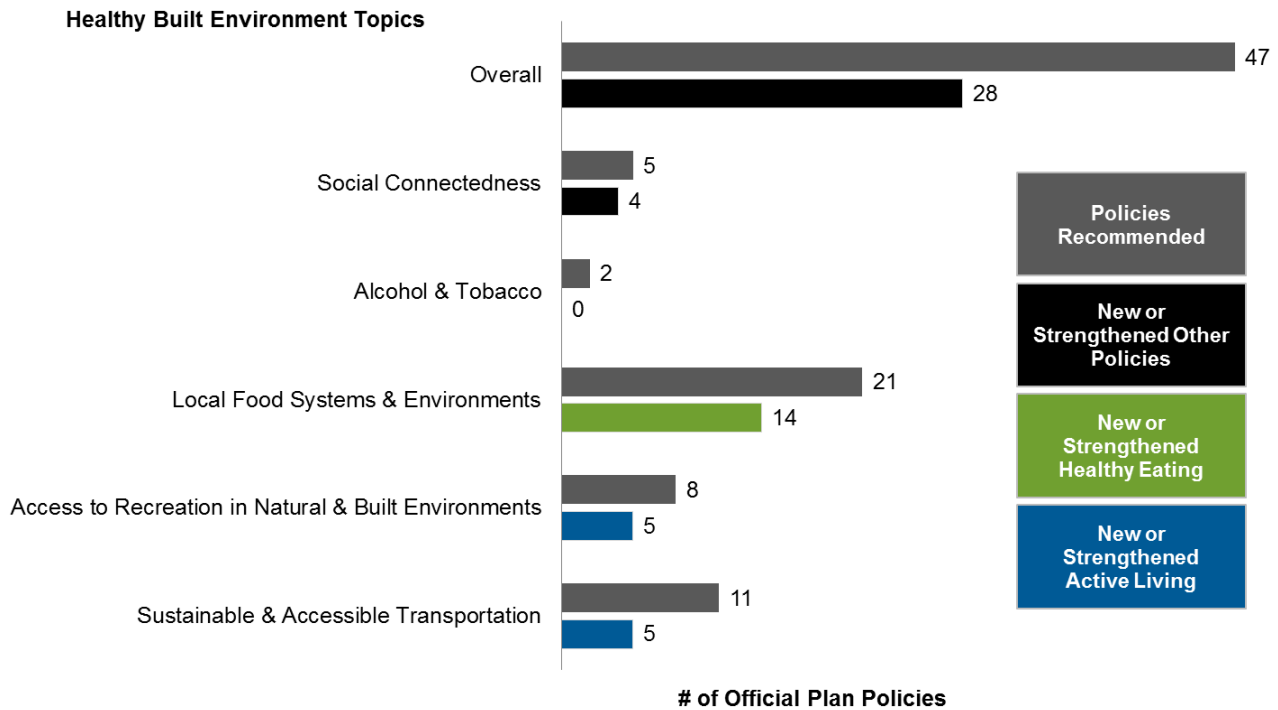
The Sustainable & Accessible Transportation topic was aptly addressed in the initial draft reviewed by HPEPH. However, further recommendations strengthened the development of complete streets policies, year round maintenance of active transportation infrastructure, and the development of supportive infrastructure, such as bicycle activated street lights, enhanced crossings, and pedestrian rest areas.

Although the County of Prince Edward's Draft Official Plan provided policies that supported the distribution of community facilities to support recreation, and validated the importance of the arts and culture sector in contributing to quality of life, it fell short in ensuring that the community's recreation and active living needs were addressed. Recommendations were provided to ensure that all residents, regardless of age, physical ability, and financial means, have access to affordable opportunities for recreation to support active living and quality of life.

Hastings County

In Hastings County, HPEPH made important contributions to the inclusion of policies to facilitate the development of Sustainable & Accessible Transportation, with 13 out of the 16 recommendations accepted (Figure 9). While the first draft of the Hastings County Official was strong in directing long-term planning for active transportation in settlement areas, it was strengthened to provide guidance to member municipalities in designing active transportation routes throughout the entire rural region. The Draft Official Plan was also strengthened with the inclusion of policies to support multimodal transportation system planning and those that direct consideration of walking and cycling requirements in new developments.

Figure 9

Official plan policy changes, Hastings County
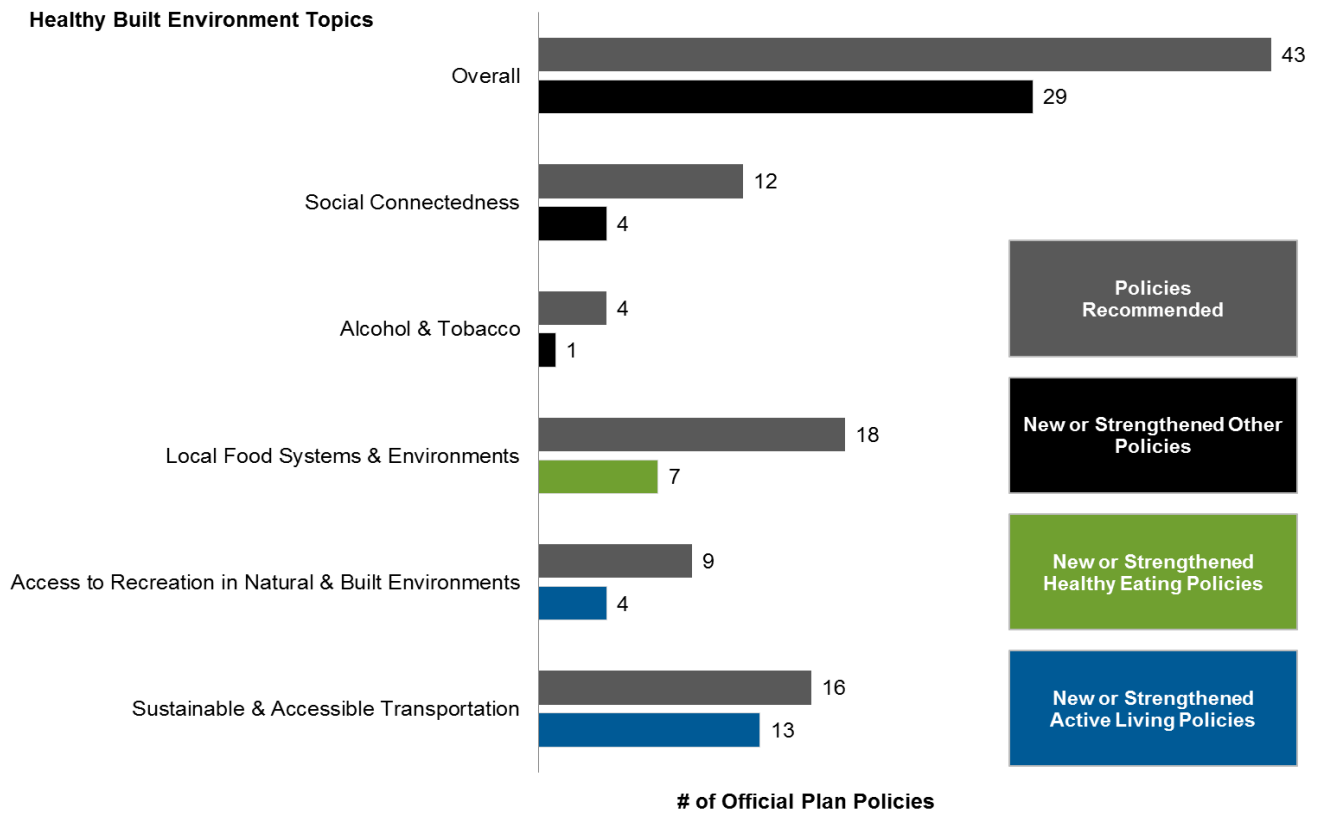
Policies related to the Local Food System & Environments were also strengthened in the Hastings County Draft Official Plan. While there were many policies to support a strong, diverse, and sustainable local food system in the initial draft, HPEPH's recommendations to encourage community gardens as a means of beautifying vacant and/or underutilized lands, and suggestions to improve language around food access as it relates to the location of grocery stores, farm stands, and community gardens, were added.

Contextual Factors

The assessment of the contextual factors that influenced the implementation and outcomes of the Healthy Communities Policy and Capacity Building initiative were highlighted in the program staff focus group, and supported by data gathered in the program document review and PAA focus groups. While a substantial amount of deliverables were executed and many of the proposed outcomes were attained, the consistent implementation of activities across the PAAs was met with two challenges.

First, a specific challenge was that the Healthy Communities Fund disbursements from MOHLTC were periodic, and the spending deadlines were often short over its five year existence. Furthermore, the funding program ended in 2015 before the intervention activities were fully implemented. HPEPH continued to support the initiative from 2015 through to 2016 and buttressed several initiatives through to their completion however, formal support concluded for the education and awareness strategy and the community capacity building strategy for community gardens in 2017.

The Healthy Communities Fund was used to support the following:

- Planning
    - Municipal Decision-Maker Readiness Assessment (2013)
    - Healthy Eating and Active Living Situational Assessment (2014)
- Education & Awareness
    - Healthy Policies for Healthy Communities Workshop (2014)
    - Communication collateral to support municipal and public education and initiatives (2014-2015)
- Capacity Building
    - Bay of Quinte Bike Summit (2013)
    - Healthy Communities Policy Action Planning Workshop (2014)
    - Community Gardens Growth Session (2015)
- Policy Development
    - Develop checklists to facilitate municipal official plan and municipal policy content reviews

Hastings Prince Edward Public Health funds were used to support the following:

- Planning
    - Development of the *Building Healthy and Sustainable Communities: Healthy Policies for Official Plans* document (2013)
- Capacity Building
    - Bicycle Friendly Communities Workshop (2015)
    - Community Gardens Network Stone Soup event (2016)
- Education & Awareness
    - Implementation of municipal and public education initiatives (2015)
    - Development of a website and blog (2016-2017)
    - Development and implementation of the Bike Month campaigns (2014-2017)

- Policy Development
    - Content reviews of two municipal official plans, one active transportation plan and numerous municipal policies (2015-2017)
    - Development of the *Building Healthy and Sustainable Communities: Healthy Policies for Active Transportation* document (2017-2018)

Second, there was considerable turnover in public health dietitian staff positions responsible for the initiative. This may have limited advancement and implementation of the healthy eating related interventions, as compared to active living related interventions. There was only one follow-up education presentation to a single municipality related to HE, compared to ten presentations to ten different municipalities related to AL. This, along with inconsistent organizational support for the advancement of HE policy interventions identified in program operational plans, may have limited the opportunity of program staff to build and maintain relationships with municipalities and community stakeholders for ongoing capacity building and collaborative planning related to HE policy.

Although connections between community gardens stakeholders and HPEPH decreased over time, there remained considerable readiness and capacity within the two individual communities for the establishment of gardens. Municipalities and community groups came together to establish three gardens in two municipalities following the collaborative planning workshop facilitated by HPEPH. Hastings Prince Edward Public Health provided independent support to these initiatives, peripheral to the work being undertaken to establish a Community Gardens Network. They assisted in the development of municipal guidelines for the establishment of gardens on public lands, and provided support to community organizations in accessing funds for materials to build the gardens.

The ending of the Healthy Communities Fund constrained the advancement of additional HE and food environment initiatives. While HPEPH operational plans indicated the initiation of a food environment situational assessment in 2016, this was not completed and remains an important potential source of local evidence for advancing HE policy work beyond community gardens.

The momentum and community capacity that was built during the term of the Healthy Communities funding was sustained beyond the MOHLTC funding period, as municipalities and community stakeholders took on leadership roles in advancing AL policy initiatives. At the end of 2016, leadership for the Non-Motorized Trails PAA was appropriately transferred from HPEPH to a non-profit organization governed by the region's seven municipalities, which successfully secured funding for the development of the Non-Motorized Trails Master Plan. At that point in time, HPEPH took on a supportive role in the development of this policy.

Implementation of the Bicycle Friendly Communities Workshop for the cities of Belleville and Quinte West appeared to be a key collaborative planning intervention funded by HPEPH. This served to organize and build support among municipalities and stakeholders for advancing active transportation policy and capitalize on provincial cycling initiatives. Prior to this 2015 event, the Ministry of Transportation established the Ontario Municipal Cycling Infrastructure

Program, as part of the provincial #CycleOn strategy, to help municipalities build new and improve existing cycling infrastructure.(25) This important influx of funding may have further motivated municipalities to develop policies and implement improvements to the cycling environment. Community stakeholders involved in the Bicycle Friendly Communities initiatives continue to advocate for policy implementation, and have taken leadership in implementing cycling skills education within the community.

Education and awareness strategies were maintained by HPEPH following the termination of the Healthy Communities Fund to sustain the momentum that was built with this initiative. This included the continued implementation of communication activities related to social media, promotion of the Healthy Communities Declaration to community groups, and the development of a website and blog to communicate community initiatives and accomplishments within the PAAs between March of 2015 and June of 2017. The blog was removed before being fully implemented and evaluated, and social media communication activities ended in 2017.

Municipal built environment policy development activities continue to be executed by HPEPH when windows of opportunity arise for providing recommendations on the content of municipal policies.

VI.   Validation of the Theory of Change

The observed performance of the Healthy Communities Policy and Capacity Building initiative was critically assessed against an adapted version of the Relevant Explanation Finder framework.(2,3,22) This assessment relied upon the elements defined in Appendix 3 to assess the validity of the mechanisms that explain the results chain described in the theory of change. It also examined the effects of possible alternative explanations and influencing factors that could account for the observed outcomes (Table 3).

Table 3

Relevant Explanation Finder

Influencing Factors	Sources	Influencing Level / Identifiers	Observed Impact	Degree of Influence					Implication
				Certainty Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
1. Mechanism If reliable financial support is allocated, then the intervention activities are implemented and the audiences are engaged as planned **Primary Assumption** Reliable financial resources are allocated for the development and delivery of planned intervention activities **Alternative** Reliable financial resources are not allocated for the development and delivery of planned intervention activities	Program Description Implementation Activities & Audiences Contextual Factors	**Infra-structural** MOHLTC provided financial support from 2012-2015, however funding was periodic and over short timeframes **Institutional** HPEPH provided financial support for activities when there were gaps in funding HPEPH implemented the activities as identified in program planning documents	Implementation	High Mechanism is supported by indicating that funding was allocated	High Mechanism is identified within two appropriate data sources	Medium The effect of the mechanism was observed across PAAs, with less effect in HE	High Evidence indicates that funded activities contributed to multiple observed outcomes	Low	Reliable financial resources contribute to the implement-tation of policy development activities as planned
2. Mechanism If reliable human resource support is allocated, then the	Implementation Activities & Audiences	**Institutional** Consistent staff allocation to AL initiatives	Implementation	High Evidence supports the presence of the	High Mechanism is identified in two	High Evidence explains the effect of both	Medium Evidence supports contribution for	Low	Reliable human resources contribute to the

				Degree of Influence					Implication
Influencing Factors	**Sources**	**Influencing Level / Identifiers**	**Observed Impact**	**Certainty** Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
intervention activities are implemented and the audiences are engaged as planned **Primary Assumption** Reliable human resources are allocated for the development and delivery of planned intervention activities **Alternative** Reliable human resources are not allocated for the development and delivery of planned intervention activities	Contextual Factors	Greater number of AL activities implemented Staff turnover occurred for HE initiatives Inconsistent management support for HE initiatives		mechanism in relation to intensity of activity implement-ation in PAAs	appropriate data sources	the primary and alternative explanations across PAAs; there is less evidence for HE than for AL	capacity building outcomes		implementati on of planned policy development activities
3. Mechanism If the intervention activities are delivered as planned, then audiences will be engaged in the policy development activities **Primary**	Implemen-tation Activities & Audiences Contextual Factors	**Institutional** Interventions were implemented as planned and audiences engaged Education activities implemented were less frequently for HE than for AL **Interpersonal** Interactions with	Implemen-tation	High Evidence supports the active implement-tation of education, policy development and capacity building activities as	High Mechanism is identified in two appropriate data sources	High Evidence explains the effect of both the primary and alternative explanations across PAAs due to differences in intensity of implementation	High Evidence supports contribution to capacity and policy development outcomes	Low	The delivery of the planned intervention activities contribute to engaging audiences throughout the policy development cycle

				Degree of Influence					Implication
Influencing Factors	**Sources**	**Influencing Level / Identifiers**	**Observed Impact**	**Certainty** Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
Assumption Intervention activities are delivered as planned		municipal elected officials and staff facilitated implementation of education and policy development activities		planned					
Alternative Intervention activities are not delivered as planned		Interactions with community stakeholders facilitated implementation of education and capacity building activities							
4. Mechanism If the audiences understand the education information, then they will participate in creating policies that create supportive HEAL environments	Implemen- tation Activities & Audiences Education & Awareness Outcomes Capacity Building Outcomes	**Individual** Municipal elected officials demonstrated no change in beliefs toward HEAL policy issues Community stakeholders involved in PAAs indicated that HPEPH affected the skills, learning and knowledge domain of capacity building	Comingled	Low Evidence indicates education interventions have little change on knowledge outcomes, thus supports the alternative	Medium Alternative is identified in three appropriate data sources	High Alternative was observed across PAAs There was a higher level of knowledge of AL issues than HE issues at the outset	Low Evidence does not support the mechanism as a direct influence on knowledge or policy outcomes	Medium (14,26)	In situations where audiences are well informed about policy issues, communicati on messages framed to facilitate policy action can contribute to encouraging participation in policy development
Primary Assumption Audiences receive the education information and understand the role of policy in creating supportive HEAL environments		**Infra-structural** Suggestions made to municipal elected officials to initiate policy formulation following education and collaborative planning activities resulted in the							
Alternative The education information is not									

Influencing Factors	Sources	Influencing Level / Identifiers	Observed Impact	Degree of Influence					Implication
				Certainty Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
received by audiences; it is already known, or not well understood		formulation of policy							
5. Mechanism If audiences have support and encouragement, then they will participate in advancing HEAL policy issues **Primary Assumption** Audiences receive appropriate support and encouragement for taking action on HEAL policy issues **Alternative** Appropriate support and encouragement is not received by audiences for taking action on HEAL policy issues	Capacity Building Outcomes Policy Develop-ment Outcomes Contextual Factors	**Individual** HPEPH staff used a collaborative and empowering approach to assist audiences in achieving authority over the locally identified PAA priorities **Interpersonal** Building relationships with audiences helped to create momentum to advance PAAs **Institutional** HPEPH facilitated the development of attributes across most of the domains of community capacity	Primary	High Evidence suggests that capacity building helped audiences take action on the PAAs	High Mechanism is identified in three appropriate data sources	High Effect of the mechanism was observed across PAAs	High Evidence supports contribution to capacity building and policy outcomes	High (27,28)	Providing collaborative support and attention to activities that develop the domains of community capacity strongly contributes to participation in policy action
6. Mechanism If the audiences have the capacity to participate in HEAL policy issues, then they will influence the availability opportunities to advance HEAL	Implemen-tation Activities & Audiences Capacity Building Outcomes Policy Develop-ment	**Individual** Community stakeholders facilitated the opportunity to develop community gardens policy (municipal community garden guidelines)	Primary	High Evidence suggests that level of capacity contributed to the opportunity to influence policy related to	High Mechanism is identified in four appropriate data sources	High Effect of the mechanism was observed across PAAs	Medium Evidence supports contribution to policy outcomes	High (27,28)	Stakeholders with high levels of capacity can work together to contribute to the availability of opportunities

Influencing Factors	Sources	Influencing Level / Identifiers	Observed Impact	Degree of Influence					Implication
				Certainty Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
policy **Primary** Audiences with increased capacity will influence the availability of opportunities to advance HEAL policy **Alternative** Audiences do not have adequate capacity influence the availability of opportunities to advance HEAL policy	ment Outcomes Contextual Factors	**Interpersonal** HPEPH and community and municipal stakeholders worked collaboratively to initiate the formulation of AL policies (QW ATMP, to a lesser extent Belleville Cycling Implementation Plan) HPEPH and community and municipal stakeholders collaborated to secure funding to initiate the formulation of the NMTMP policy **Infra-structural** Provincial #CycleOn policy offered municipalities funding for cycling infrastructure and further motivated municipalities to develop AT policies		PAAs					to advance policy External political factors can influence capacity and opportunities to advance policy
7. Mechanism If opportunities to participate in policy formulation arise, then HPEPH and community stakeholders will have the	Implemen-tation Activities & Audiences Policy Develop-ment	**Infra-Structural** Opportunities to provide content for municipal policy (e.g. Official Plans, ATMP, NMTMP) became available	Primary	High Evidence suggests that the availability of windows of opportunity to influence policy related to PAAs	High Mechanism is supported by three appropriate data sources	High Effect of the mechanism was observed across PAAs	Medium Evidence supports contribution to policy outcomes	High (29)	The availability of opportunities to influence the formulation of policy contributes to

				Degree of Influence					Implication
Influencing Factors	**Sources**	**Influencing Level / Identifiers**	**Observed Impact**	**Certainty** Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
opportunity to influence municipal policies related to HEAL **Primary** Opportunities to participate in the formulation of municipal policies related to HEAL become available **Alternative** Opportunities to participate in the formulation of municipal policies related to HEAL do not arise or are not acted upon	Outcomes Contextual Factors	Opportunities to influence AL policies were more frequent than HE policies		are necessary for policy development					the establishment of policies that may affect health
8. Mechanism If HPEPH and audiences work together to support the establishment of HEAL policies, then municipalities will develop and implement policies that create supportive environments for HEAL **Primary** HPEPH and audiences collaborate to	Implementation Activities & Audiences Policy Development Outcomes Contextual Factors	**Interpersonal** HPEPH supported stakeholders in accessing funds for community gardens and cycling skills implementation HPEPH collaborated with stakeholders to formulate community gardens guidelines HPEPH and stakeholders collaborated to formulate the NMTMP policy	Primary	High Evidence suggests that participation in policy formulation resulted in changes to the policy content	High Mechanism is supported by three appropriate data sources	High Effect of the mechanism was observed across PAAs	High Evidence supports contribution to policy outcomes	High (28)	High levels of engagement and participation with community and municipal stakeholders are important contributors to the creation and implementation of policies

Influencing Factors	Sources	Influencing Level / Identifiers	Observed Impact	Degree of Influence					Implication
				Certainty Observations match the mechanism	**Robustness** Mechanism is a contributor	**Prevalence** Mechanism contributes to <1 PAA	**Range** Mechanism contributes to <1 strategy outcome	**Theoretical Grounding** Mechanism is theory informed	
establish and implement of policies that create supportive HEAL environments		HPEPH provided content to municipalities for policy formulation (e.g. OP, ATMP)							
Alternative									
HPEPH and audiences do not collaborate to establish and implement policies that create supportive HEAL environments									

VII.   Contributions and Considerations for Policy Action

1. **Multi-Sectoral Collaboration**: Collaborating with community and municipal stakeholders, taking an active role in community identified priorities, and building relationships between sectors contributed to the development of community capacity for advancing HEAL policy and supportive environment interventions. Giving particular attention to the growth of the multiple domains of community capacity helps develop local action, build momentum, and create opportunities for the development of new policies and supportive environments.

   Lessons learned:

   - Take leadership in building relationships and exchanging knowledge between sectors and stakeholders involved in policy issues.
   - Seek alignment between public health issues and locally identified priorities to enhance the credibility of local community-driven action.
   - Provide community and municipal stakeholders with relevant synthesized population health surveillance data, research on local readiness and contextual issues, and scientific evidence to support policy decisions.
   - Manage policy development projects at the outset and develop leadership capabilities among stakeholders to increase ability to influence the conditions and policies affecting health.
   - Develop internal capacity for community development approaches to health promotion, and prepare HPEPH's internal workforce to engage in multi-sector collaboration and policy action as a key health promotion strategy.

2. **Opportunities for Policy Action:** Community and municipal stakeholders with high levels of capacity worked together to contribute to the availability of opportunities to advance policy, and continued to collaborate in policy formulation and implementation throughout the policy process. In addition, HPEPH was prepared to recommend evidence-informed content for written policies when more predictable opportunities to influence policy arose, such as municipal official plans. This resulted in increased content within policies that can influence HEAL environments.

   Lessons learned:

   - Maintain measured flexibility to capitalize on external factors that influence community and political readiness to advance policy and supportive environments.
   - Be prepared to provide evidence-informed content recommendations on written policies when they are expected to be developed, reviewed, or updated.

3. **Communication Message Framing:** In this initiative, the education and awareness strategies did not appear to contribute to increased knowledge of HEAL policy issues among municipal elected officials, but rather may have worked alongside community capacity building activities to increase their engagement and commitment to multi-sectoral participation in the policy process. Furthermore, both the education and awareness and

the community capacity building strategies related to active living were delivered with greater intensity and over a longer period of time, when compared to healthy eating. This may have contributed to the observations of stronger community capacity and the number of policy outcomes related to the active living PAAs

Lessons learned:

- Education and awareness strategies should be combined with building community capacity for policy action and delivered with adequate intensity and duration to advance policy development outcomes.
- In circumstances where audiences are well informed about the health issues to be addressed, messaging that is framed to increase understanding of the evidence-informed policy solutions can help to advance collaboration for policy action.
- Use multiple channels for raising awareness of policy solutions; include direct education to stakeholders, in addition to providing opportunities for stakeholders to share perspectives, build relationships, and collectively generate policy and supportive environment solutions.

4. **Resources:** Reliable financial and human resources contributed to the development and implementation of strategies that build community capacity for policy development.

Lessons learned:

- Capitalize on external sources of funding available to HPEPH to build relationships and momentum for policy development; when external funds are limited, continue to make appropriate investments to maintain policy action that advances objectives.
- Municipal and community stakeholders may have access funding sources that are unavailable to HPEPH that can advance policy action thus providing support in accessing financial resources builds community capacity and increases efficiency.
- Building strong collaborative relationships with stakeholders takes time and consistency, and therefore benefits from dedicated human resources.

5. **Sustainability:** In this initiative, HPEPH was involved in the policy process through to the implementation phases, as the initiatives have not yet matured to the evaluation phase.

Lessons learned:

- Sustained involvement throughout the entire policy process is required to participate in the evaluation of policies that can inform future policy actions and related health outcomes.

VIII. Strengths and Limitations

This evaluation used CA, a theory-based evaluation design to assess the impact of a complex health promotion initiative. Contribution analysis is an approach to assess attribution of complex interventions where conventional experimental methodologies are problematic, (1,2,21) and thus does not rely on the rigour of experimental designs for determining attribution. The shared judgment of program stakeholders and independent contributors formed the basis of contribution claims and the extent to which influencing factors played in the observed theory of change, therefore limiting precise inference of causal contributions between interventions and outcomes.(2,3) To attenuate this bias that is inherent to CA, a systematic process was applied to facilitate an objective assessment of the observed performance of the initiative.(2,3,22) The Relevant Explanation Finder framework is a methodological approach that was used to identify evidence of primary and alternative explanations. It helped weigh the results to iteratively strengthen the performance results and achieve consensus on the key components of the initiative that contributed to the observed outcomes. Furthermore, this process found that the multiple qualitative data sources used in this study offered corroborating evidence that supported the many links between the theoretical assumptions and observed outcomes.

Limitations relate to the data collection and analysis methods used in this evaluation study. The program document review may have been biased because of the selective survival of documentation and the information provided within the documents may have been incomplete or inaccurate. In addition, this study was led by an internal evaluator involved in the development and delivery of the comprehensive health promotion activities. To mitigate this, procedures were established during data collection and analysis to reduce potential subjectivity. First, capacity building and program staff focus group data was collected by an independent researcher. Second, the policy document review was completed by a working group made up of relevant subject matter experts who achieved consensus on the observed policy changes, in addition to the consensus building approach used in the application of the Relevant Explanation Finder.

References

1.   Mayne J. Addressing cause and effect in simple and complex settings through contribution analysis. In: Evaluating the Complex Attribution, Contribution and Beyond. New York: Transaction Publishers; 2011.

2.   Budhwani S, McDavid JC. Contribution Analysis: Theoretical and Practical Challenges and Prospects for Evaluators. Can J Progr Eval. 2017;32(1):1–24.

3.   Lemire S, Neilsen S, Dybdal L. Making contribution analysis work: A practical framework for handling influencing factors and alternative explanations. Evaluation. 2012;18(3):294–309.

4.   Knowledge Management KFL&A Public Health. Hastings Prince Edward Public Health 2017 Population Health Assessment [Internet]. 2017. Available from: http://bit.ly/2PhqICn

5.   Mayne SL, Auchincloss AH, Michael YL. Impact of policy and built environment changes on obesity-related outcomes: a systematic review of naturally occurring experiments. Obes Rev. 2015;16(5):362–75.

6.   Heath GW, Parra DC, Sarmiento OL, Andersen LB, Owen N, Goenka S, et al. Evidence-based intervention in physical activity: lessons from around the world. Lancet]. 2012;380(9838):272–81.

7.   Alaimo K, Beavers AW, Crawford C, Snyder EH, Litt JS. Amplifying Health Through Community Gardens: A Framework for Advancing Multicomponent, Behaviorally Based Neighborhood Interventions. Curr Environ Heal Reports. 2016;3(3):302–12.

8.   Hill T. Building Complete and Sustainable Communities: Healthy Policies for Active Transportation [Internet]. Hastings Prince Edward Public Health. 2018 [cited 2018 Jun 27]. Available from: http://bit.ly/2QG5UoW

9.   Mayne J. Contribution Analysis: An approach to exploring cause and effect. Institutional Learning and Change; 2008.

10.   Mayne J. Addressing attribution through contribution analysis: using performance measures sensibly. Can J Progr Eval. 2001;16(1):1–24.

11.   Hastings Prince Edward Public Health. Building Complete and Sustainable Communities: Healthy Policies for Official Plans [Internet]. Hastings Prince Edward Public Health; 2012 [cited 2018 Jun 27]. Available from: http://bit.ly/2E7f1NO

12.   Beattie - Huggan P. Healthy Eating & Active Living Policy Action Planning Workshop. Hastings & Prince Edward Healthy Communities Partnership and The Quaich, Inc.; 2014.

13.   Dillon Consulting Ltd. Hastings & Prince Edward Situational Assessment on Healthy Eating and Active Living. Hastings & Prince Edward Healthy Communities Partnership.; 2014.

14.   Frameworks Institute. How to Talk about Food and Fitness/Community Health [Internet]. Frameworks Institute; 2008. Available from: http://bit.ly/2Ed39d9

15.   Minkler M, Wallerstein N. Improving Health through Community Organization and Community Building. In: Minkler M, editor. Community Organizing and Community Building for Health. 2nd ed. Piscataway: Reuters; 2011. p. 26–50.

16.   Laverack G, Labonte R. A planning framework for community empowerment goals within health promotion. Health Policy Plan. 2000;15(1):255–62.

17.   Hill T. Healthy Public Policy Options for Transportation Planning. 2012.

18.   Kroll T, Neri M. Designs for mixed methods research. In: Mixed Methods Research for Nursing and the Health Sciences. Hoboken: Wiley-Blackwell; 2009. p. 31–49.

19.   Gibbon M, Labonte R, Laverack G. Evaluating community capacity. Heal Soc Care Community. 2002;10(5):0.

20.   MacLellan-Wright MF, Anderson D, Barber S, Smith N, Cantin B, Felix R, et al. The development of measures of community capacity for community-based funding programs in Canada. Health Promot Int. 2007;22(4):299–306.

21.   Mayne J. Contribution analysis: Coming of age? Evaluation. 2012;18(3).

22.   Biggs J, Farrell L, Lawrence G, Johnson J. A practical example of contribution analysis to a public health intervention. Evaluation. 2014;20(2):214–29.

23.   Benoit F. Public policy models and their usefulness in public health: the stages model. National Collaborating Centre on Healthy Public Policy; 2013.

24.   Fischer F, Miller GJ, Sidney MS. Handbook of Public Policy Analysis: Theory, Politics, and Methods [Internet]. Boca Raton: Taylor Francis Group, LLC; 2007 [cited 2018 Aug 13]. Available from: http://bit.ly/2OyENLr

25.   Ontario Municipal Cycling Infrastructure Program [Internet]. Ontario Ministry of Transportation. 2016. [cited 2018 Jun 4] Available from: http://bit.ly/2E8Ld3t

26.   Foundation RWJ. A New Way to Talk About The Social Determinants of Health [Internet]. Robert Wood Johnson Foundation; [cited 2018 Aug 13] Available from: http://bit.ly/2E7qHju

27.   Berman M, Shook RP, Meissen-Sebelius E, Markenson D, Summar S, DeWitt E, et al. Evaluation of the Healthy Lifestyles Initiative for Improving Community Capacity for Childhood Obesity Prevention. Prev Chronic Dis. 2011;15:E24.

28.   Weiss D, Lillefjell M, Magnus E. Facilitators for the development and implementation of health promoting policy and programs - a scoping review at the local community level. BMC Public Health. 2016;16.

29.   Kingdon J. Agendas, Alternatives and Public Policies. 2nd ed. New York: HarperCollins; 1995.

Appendix 1

Table 4

Document review code definitions

Built Environment Topics

Access to Recreation in Built & Natural Environments	Ensure all residents have access to safe and healthy opportunities for active recreation in built and natural settings.
Health in All Policies & Official Plans	Addressing all themes by integrating the assessment of health into policy development with a focus on municipal official plans.
Local Food Systems & Environments	Increase the accessibility, affordability and availability of local, fresh healthy foods through community design.
Sustainable & Accessible Transportation	Reduction of automobile dependency by encouraging, supporting and promoting active transportation infrastructure for residents of all ages.

Policy Advocacy Activities

Assist in Accessing Resources	Providing support to access funding, materials, or human services to support policy development.
Collaborative Planning	Working in cooperation with others to develop a plan of action to address a policy issue.
Education	Activities that develop particular knowledge and/or skills related to the policy issue.
Encourage Implementation	Activities that encourage policy decision-makers to initiate the activities directed by the problem.
Offer Content	Provide evidence and/or perspectives to shape the content of a policy.
Suggest Formulation	Direct encouragement of policy decision-makers to address an issue through the development of a policy.

Policy Process Steps

Issue Framing	The manner in which policy decision-makers and the public perceives the problem that can be addressed by a policy.
Agenda Setting	Policy decision-makers and the public recognize the problem can be addressed by a policy and take steps to initiate the formulation of a policy.
Formulation	The consideration of various perspectives and sources of evidence to develop effective and acceptable courses of action for addressing the issue that has been placed on the agenda.
Implementation	Activities directed by the policy are undertaken to address the recognized policy problem; the policy is put into effect and the policy is executed by administrative agencies.

Evaluation	Assessment of the effectiveness and impact of the policy.

Audiences

Band Council	The governing authority of an indigenous community.
Community Non-Profit	An incorporated non-profit organization.
Granting Agency	An agency that delivers funding on behalf of a government or foundation.
Multiple Sectors	A group of representatives from different economic, human service, civil society and/or social groups that operate in a community or region.
Municipal Committee	A municipal authority established or exercising any power under the Municipal Act, 2001 with respect to the affairs or purposes of one or more municipalities.
Municipal Council	The governing authority of a single tier, lower-tier or upper-tier municipality as defined under the Municipal Act, 2001.
Municipal Staff	Individuals who are employed by a municipality and are responsible for implementing municipal decisions.

Summary of the regional differences among elected officials of their perceptions of their local HEAL environments.

Figure 10

Elected official perceptions of concern among residents about their active living environments in 2017, by region
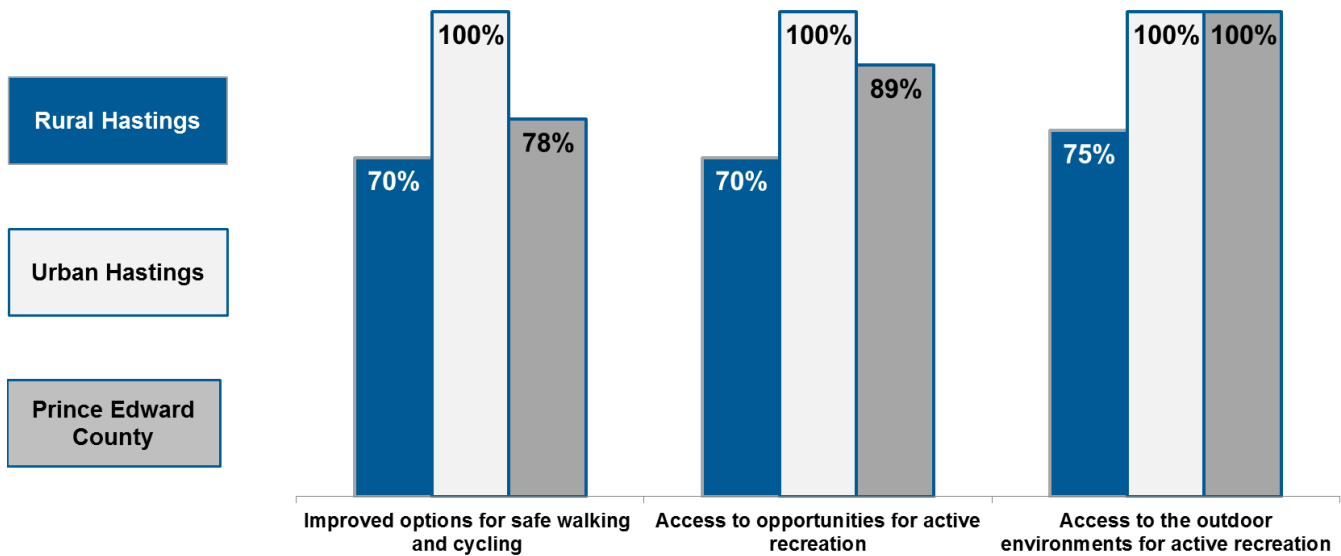

Figure 11

Elected official perceptions of concern among residents about their healthy eating environments in 2017, by region
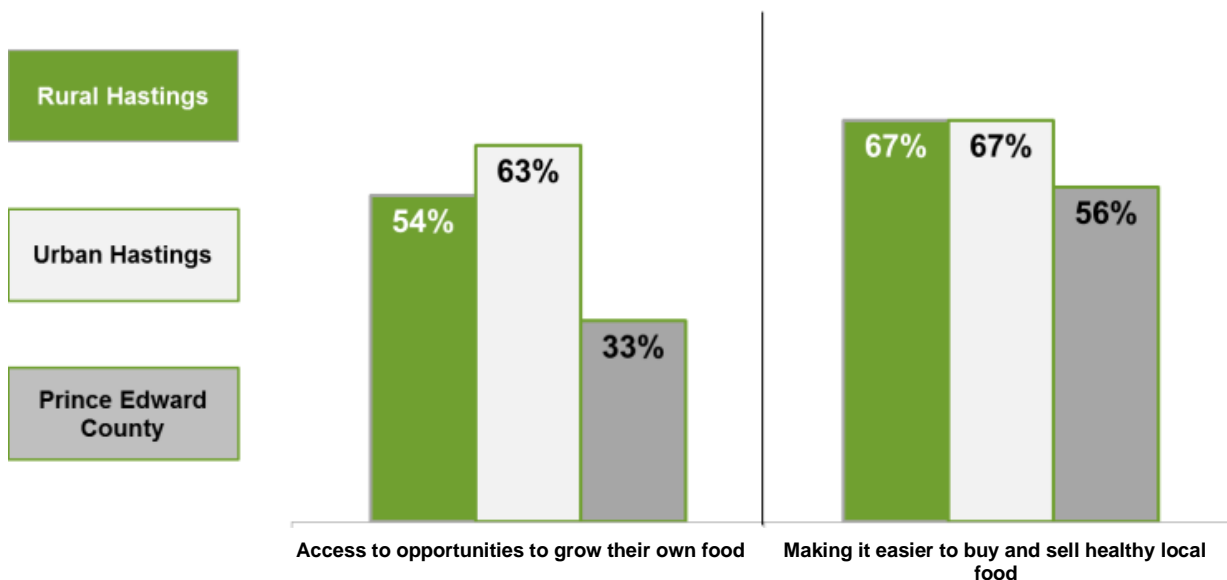
Figure 12

Elected official perceptions that children and youth in their municipality have safe places to play near their homes in 2017, by region
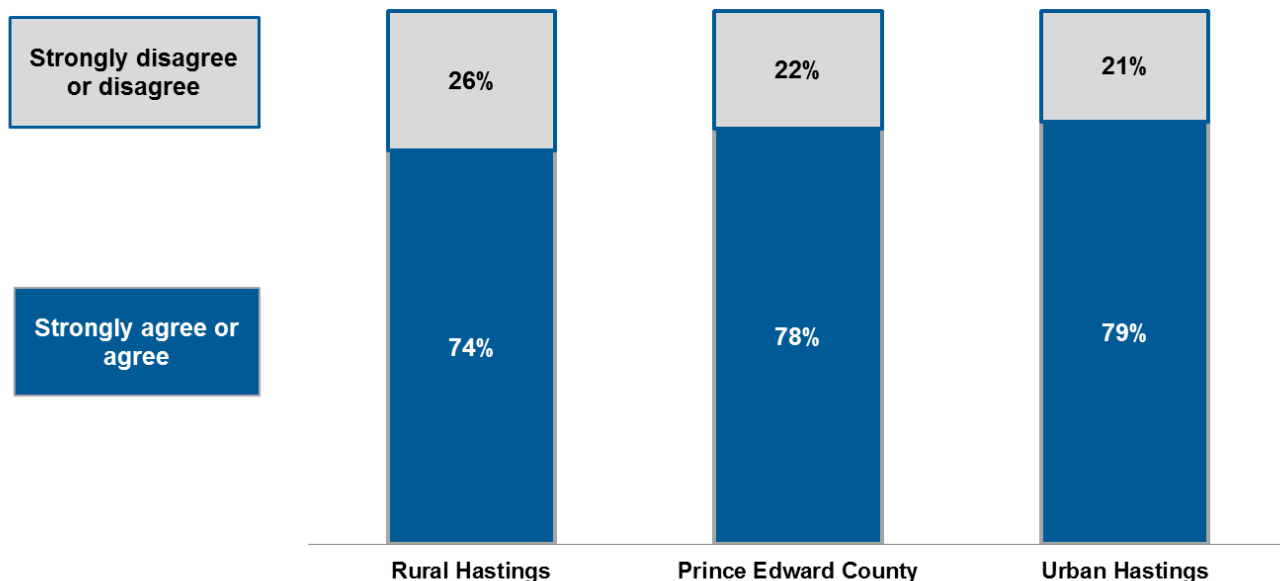

Figure 13

Elected official perceptions that older adults in their municipality have access to programs that help them stay active near their homes in 2017, by region
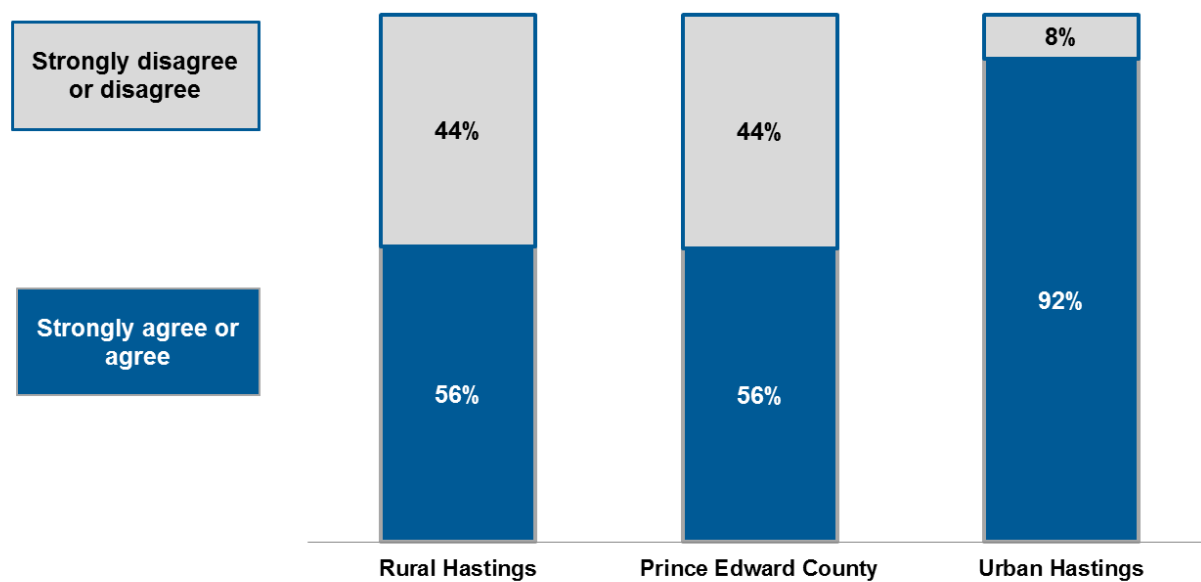
Figure 14

Elected official perceptions of ease and safety for residents in their municipality to walk for transportation and recreation in 2017, by region
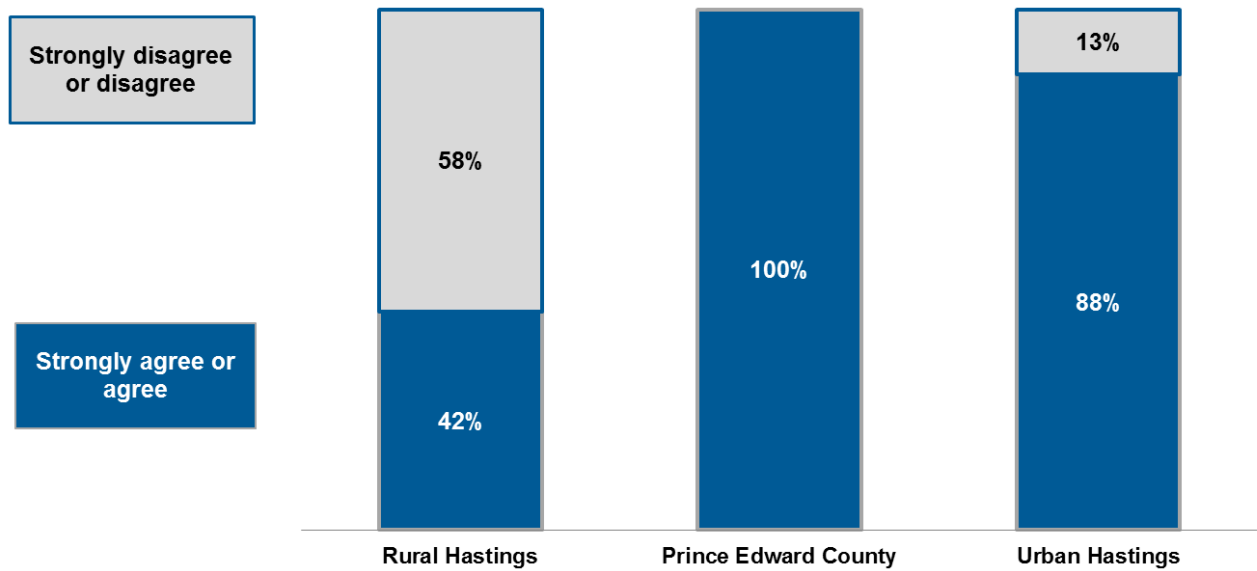

Figure 15

Elected official perceptions of ease and safety for residents in their municipality to ride a bicycle for transportation and recreation in 2017, by region
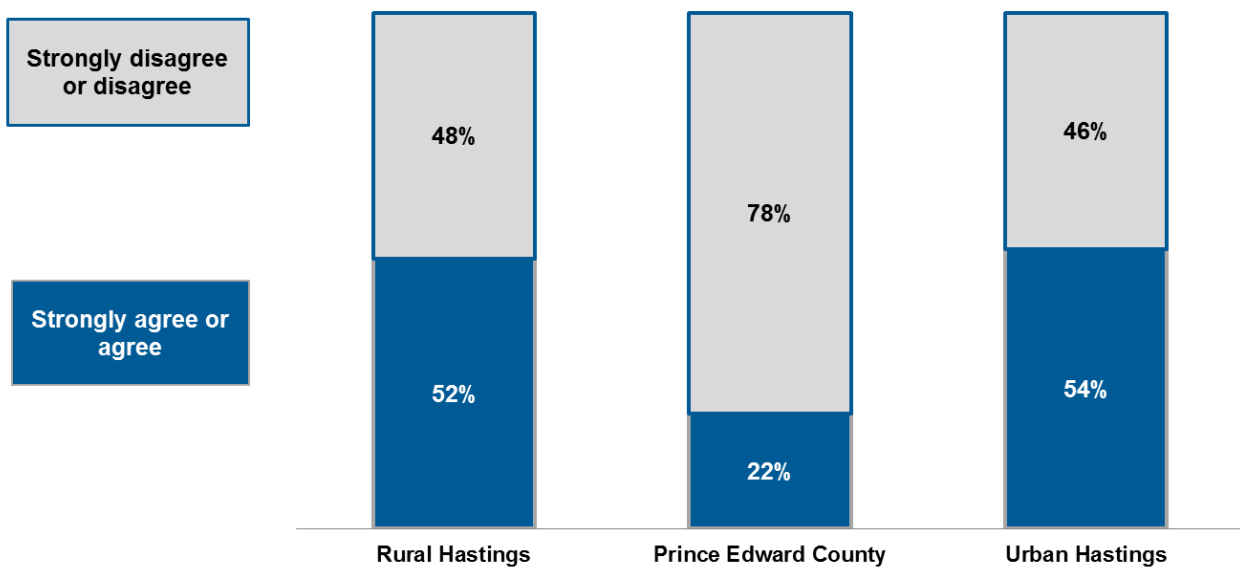
Figure 16

Elected official perceptions of ease for residents in their municipality to access adequate amounts of healthy food in 2017, by region
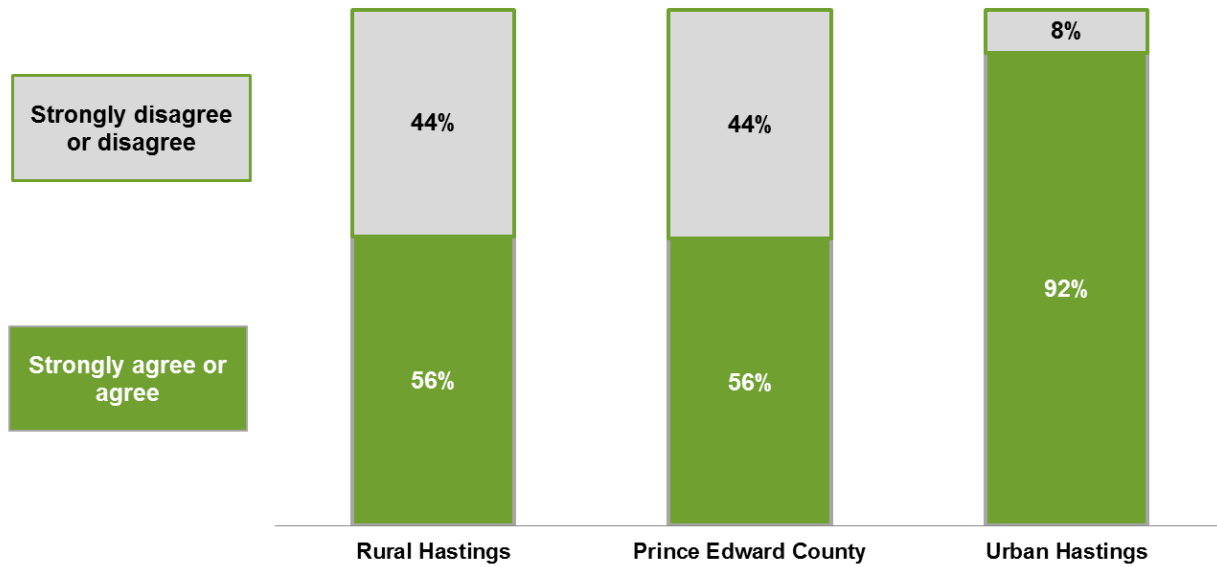

Figure 17

Elected official beliefs that policies can affect access to healthy local food and the ability to grow food from 2015 to 2017, all regions

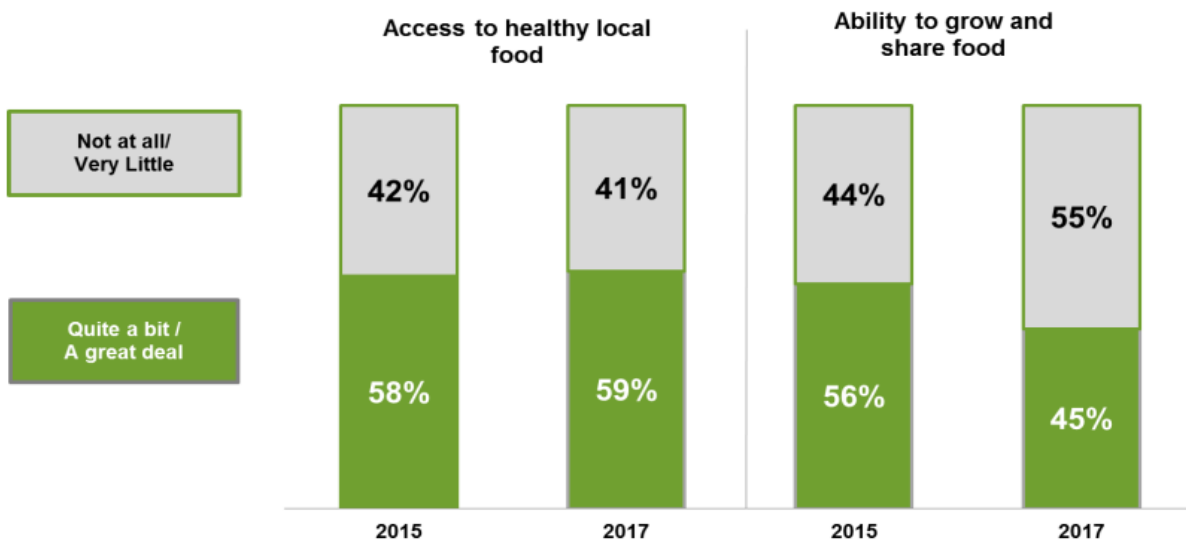**Municipal policies can affect residents':**

Figure 18

Elected official Elected official perceptions of concern among residents about their healthy eating environments from 2015 to 2017, all regions
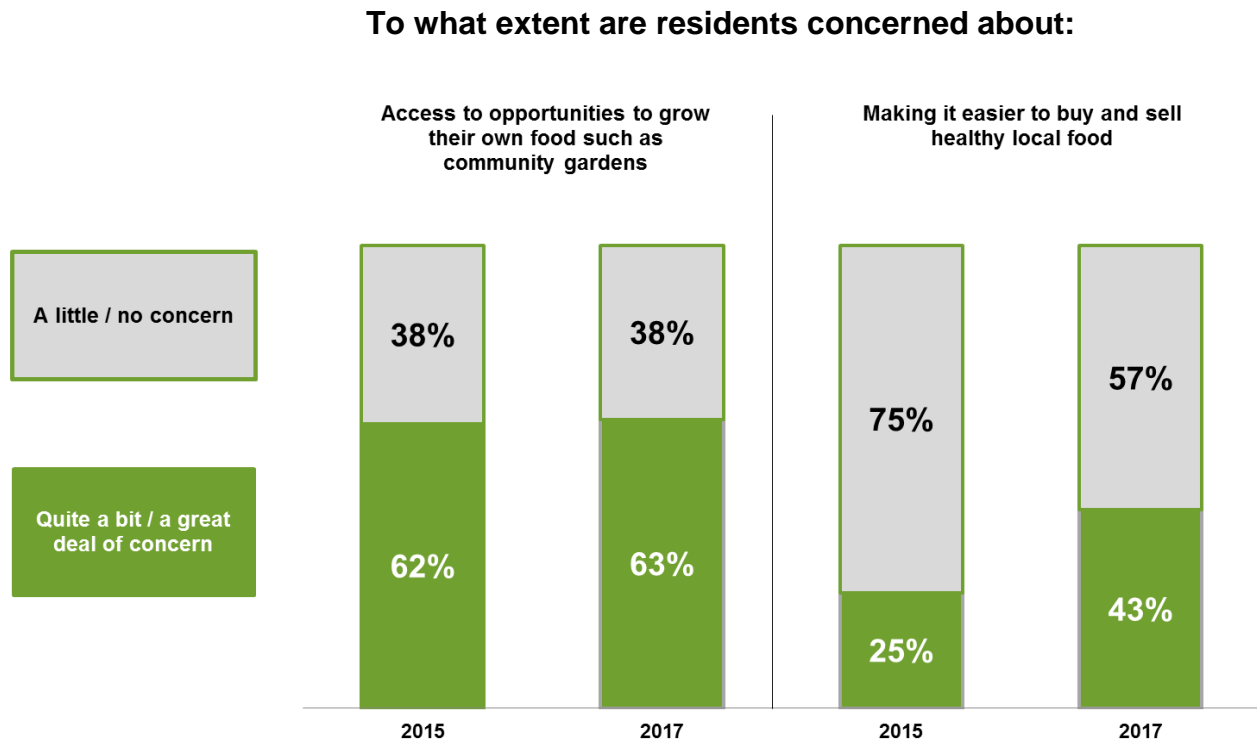
To what extent are residents concerned about:

Access to opportunities to grow their own food such as community gardens	Making it easier to buy and sell healthy local food

A little / no concern

Quite a bit / a great deal of concern

Access to opportunities to grow their own food such as community gardens:
- 2015: 38% (a little/no concern), 62% (quite a bit/a great deal)
- 2017: 38% (a little/no concern), 63% (quite a bit/a great deal)

Making it easier to buy and sell healthy local food:
- 2015: 75% (a little/no concern), 25% (quite a bit/a great deal)
- 2017: 57% (a little/no concern), 43% (quite a bit/a great deal)

Figure 19

Elected officials beliefs that policies can affect residents' access to opportunities for active living from 2015-2017, all regions

Municipal policies can affect people's:

Decisions to walk, cycle or use transit	Access to facilities and programs for recreation	Access to the outdoors for recreation

Not at all/ Very little

Quite a bit / A great deal

Decisions to walk, cycle or use transit:
- 2015: 35% (not at all/very little), 65% (quite a bit/a great deal)
- 2017: 36% (not at all/very little), 64% (quite a bit/a great deal)

Access to facilities and programs for recreation:
- 2015: 13% (not at all/very little), 87% (quite a bit/a great deal)
- 2017: 13% (not at all/very little), 88% (quite a bit/a great deal)

Access to the outdoors for recreation:
- 2015: 8% (not at all/very little), 92% (quite a bit/a great deal)
- 2017: 11% (not at all/very little), 89% (quite a bit/a great deal)
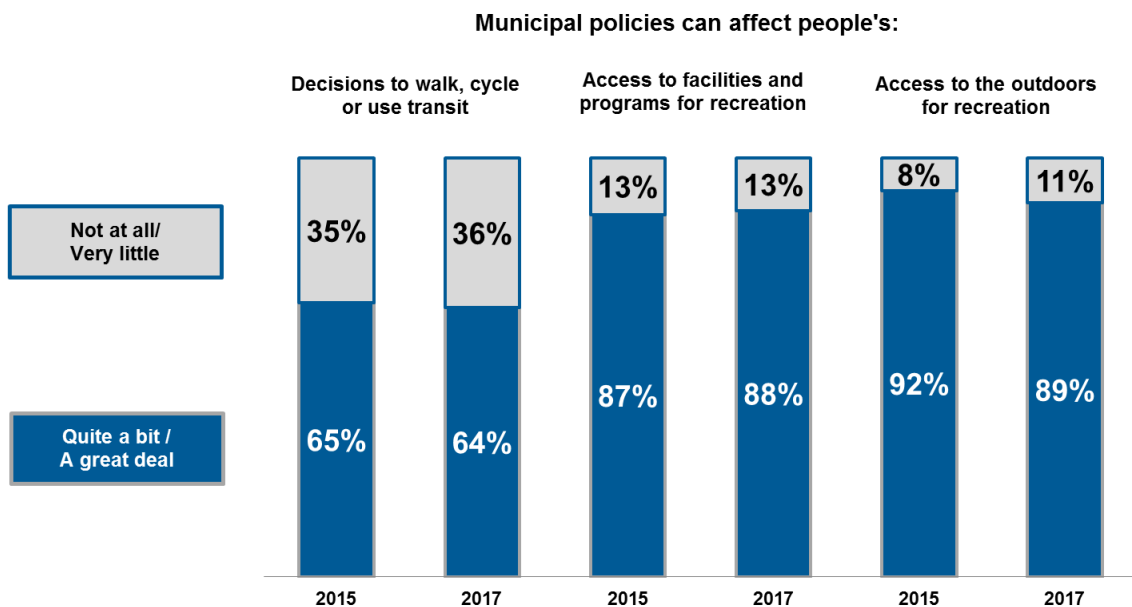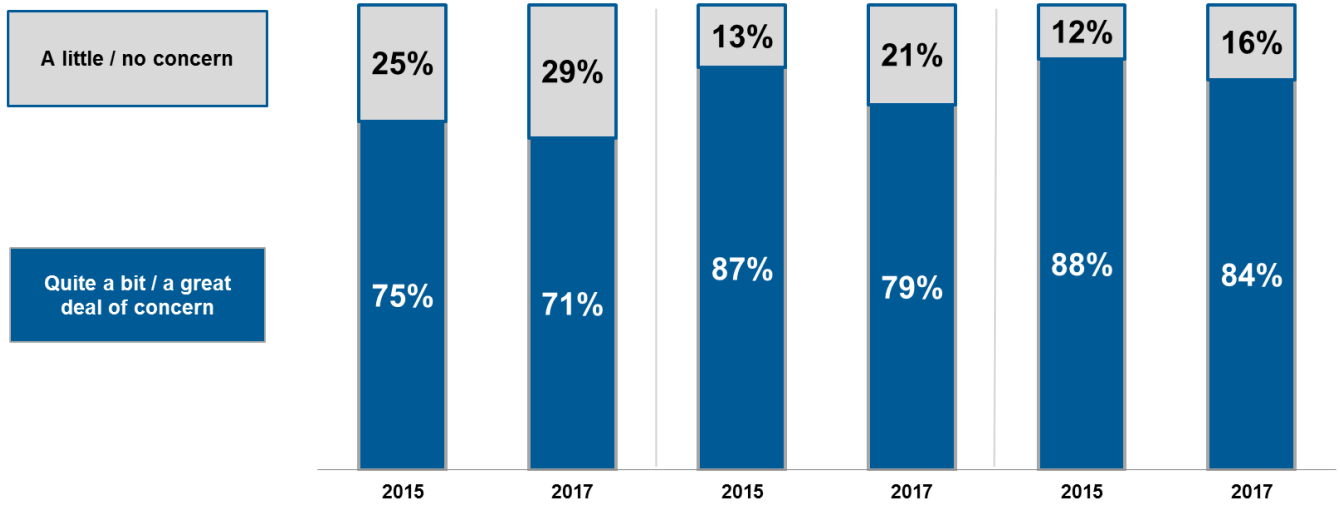
Figure 20

Elected officials perception of access to recreation and active transportation as a concern among residents from 2015 to 2017, all regions

To what extent are residents concerned about:

| A little / no concern |
| Quite a bit / a great deal of concern |

	2015	2017	2015	2017	2015	2017
A little / no concern	25%	29%	13%	21%	12%	16%
Quite a bit / a great deal of concern	75%	71%	87%	79%	88%	84%

Appendix 3

1. **Influencing Factors –** Plausible hypothesized factors that may explain the observed outcomes.

   Mechanism: The expected effect to occur that is demonstrated in the theory of change

   Primary: The underlying assumption of the mechanism that accounts for and explains the intended outcomes

   Alternative: A competing explanation or contextual condition that represents a plausible explanation for the observed outcomes; it may potentially modify or even undermine the primary mechanism for change

2. **Sources –** The section within the performance results where the observation is made from the data collection and analysis.

3. **Observed Impact –** The impact of the mechanism or alternative explanation on the outcomes includes:

   Implementation: Factors that influenced the implementation process that modify the outcomes

   Primary: The intended mechanism purported to explain the observed outcome

   Alternative: A different mechanism from that intended which explains the observed outcome

   Commingled: Other mechanisms, along with the intended mechanisms that explains the observed outcome

4. **Influencing Level –** The contextual conditions that can enable or impede the mechanism, which can operate at the following levels:

   Individual: Capacities of key actors

   Interpersonal: Relationships required for interventions

   Institutional: Settings of the implementing body

   Infra-structural: Political support and/or funding

5. **Identifiers –** Descriptions of proof or disproof of the existence of various influencing factors and alternative explanations.

6. **Degree of Influence –** An assessment of the data that demonstrated the degree of influence observed relation to the following constructs:

   Certainty: The degree to which the observed outcome ***matches*** the one predicted by the mechanism in the theory of change

   > Low: There is ***little or no evidence*** confirms that the observed process or outcome ***matches*** the process or outcome predicted in the theory of change

   > Medium: There ***some evidence*** confirms that the observed process or outcome ***matches*** the process or outcome predicted in the theory of change

High: There is *evidence across an appropriate range of data sources* that confirms that the observed process or outcome *matches* the process or outcome predicted in the theory of change

Robustness: The degree to which the mechanism is identified as a *contributor* across multiple or appropriate data sources

Low: There is *little or no evidence* that confirms that the assumption (or mechanism) *contributed* to the achieving the program results

Medium: There *some evidence* that confirms that the assumption (or mechanism) *contributed* to the achieving the program results

High: There is *evidence across an appropriate range of data sources* that confirms that the assumption (or mechanism) *contributed* to the achieving the program results

Prevalence: The degree to which the mechanism contributes to the *outcomes* of interest across the PAAs

Low: There is *little or no evidence* that confirms that the assumption (or mechanism) contributed to *one or more* of the PAAs

Medium: There *some evidence* that confirms that the assumption (or mechanism) contributed to *one or more* of the PAAs

High: There is *evidence across an appropriate range of data sources* that confirms that the assumption (or mechanism) contributed to *one or more* of the PAAs

Range: The degree to which the mechanism contributes to *a range* of program outcomes

Low: There is *little or no evidence* that confirms that the assumption (or mechanism) contributed to *one or more* of the observed outcomes

Medium: There *some evidence* that confirms that the assumption (or mechanism) contributed to *one or more* of the observed outcomes

High: There is *evidence across an appropriate range of data sources* that confirms that the assumption (or mechanism) contributed to *one or more* of the observed outcomes

Theoretical Grounding: The *credibility and rigour* of the theoretical evidence which can verify or support the mechanism.

Low: There is *little or no credible or rigorous evidence* that verifies the mechanism

Medium: There *some credible or rigorous evidence* that verifies the mechanism

High: There is a *considerable amount of credible or rigorous evidence* verifies the mechanism

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