

The Evolution of BC's Healthy Built Environment Teams

Learnings, Successes and Next Steps



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Table of Contents

Executive Summary	1
Project Summary	9
Rationale and Objectives	9
Definitions	10
Methodology and Data Collection Tools	11
Chronology of Events: HBE Teams	11
Starting Point: Ministry Directive	11
History of HBE Teams in BC	12
Current State	14
Results & Discussion	18
Success Stories and Case Studies	18
VCH	18
Interior Health	19
Island Health	21
Fraser Health	22
Northern Health	23
First Nations Health Authority	24
Lessons Learned	26
Barriers and Challenges	26
Facilitators	28
Next Steps: Opportunities for Consideration	31
Conclusion	35
Moving Forward	36
Appendices	37
Appendix 1: Consultation Participants	37
Appendix 2: History of HBE Work in BC	38
Appendix 3: Key Resources & Processes	42



Executive Summary

After over 11 years of operation, BC's Healthy Built Environment (HBE) teams across the province came together to reflect on the process of their evolution, their strengths and the different challenges they have encountered, and where best to direct their energy and resources in order to continue moving the HBE agenda forward. This project was initiated by the BC Centre for Disease Control (BCCDC) with the goal of creating institutional memory as to how HBE work has evolved in the health authorities, and identifying how this work can best be supported going forward. This report has been developed in partnership and consultation with HBE Leads representing all of BC's health authorities.

BC is seen as a leader in terms of provincial partnerships for healthier built environments, and, in particular, for its efforts to leverage the potential for the Environmental Health Officer (EHO) role. The information gathered through this project will inform and support the ongoing work of BC's HBE teams. The findings can be used to showcase BC as a leader in HBE work, and potentially encourage the increased involvement of EHOs in HBE work across the province.

The first step in this project was a situational analysis to document the different histories of HBE teams^a in each of the health authorities, from the initial Ministry directive to the current state. Participants felt it was important to highlight the many positive accomplishments of their teams, and also to articulate the common barriers and facilitators (or levers of success) to effective HBE work that they have experienced along the way.

Definitions

The health authority HBE teams are primarily made up of EHOs who work cooperatively with local governments to proactively support healthier urban planning and design. The role of HBE team members is to serve as health experts who provide credible information on the population health implications of options being considered and recommendations on how healthier built environment planning principles can be incorporated. They participate in planning discussions with local governments, non-profit organizations and other community partners.

It is important to note further that EHOs are not the only individuals doing HBE work in health authorities. There are many other health authority roles that liaise with local governments for the purpose of HBE (e.g., HBE Managers, EHO generalists, Medical Health Officers (MHOs), Epidemiologists, Population and Public Health and Community Health Specialists and Dietitians to name only a few). In order to keep the scope of this project manageable, the EHO role was the focus.

Consultation Strategy

A focus group composed of key informants from all of BC's health authorities was convened. The group had a high-level strategic discussion centering around historical context, facilitators and barriers, and how best to move forward. Individual interviews dove deeper into the origins and early days of HBE

^a Each of the health authorities have labelled the groups of staff they have working on HBE differently – some use the term “team”, some use the term “program” and often the terms are used interchangeably, as they are throughout this report.



work, program mandate and priorities, and program implementation details such as structure, timing, resources, and specifics of the HBE role.

Results

Participants shared some of the lessons learned and challenges and facilitators they have experienced. The top five challenges most commonly cited and emphasized by participants were:

1. Internal organizational limitations and challenges competing with other priorities;
2. Skill set gap and significant time and resources required for training;
3. Working in silos and internal/external duplication;
4. Challenges measuring HBE outputs & outcomes; and,
5. Challenges describing the work (internally and externally) and having others understand it.

The top four most emphasized facilitators were:

1. Challenges describing the work - ensure strong and consistent leadership support is in place and communicated;
2. Do your homework – know your communities and work hard to develop relationships;
3. Choose the right people to do the work and provide tailored training; and,
4. Communicate early and often (internally and externally) about who you are, what you do and the value you bring.

Participants also provided examples where individuals in their health authority brought an HBE lens to a planning activity which led to a positive impact. Case studies from each health authority highlighting these successes are presented in the Results and Discussion section of this report.

Next Steps: Opportunities for Consideration

Many suggestions were put forward regarding how to best support HBE work in BC. The following summarizes the six challenges and related opportunities that were identified by consultation participants. They are listed in order of declining priority in terms of how strongly they were recommended by participants, with Challenge # 1 being the highest priority. Not every option will be relevant for each health authority. These ultimately need to be reviewed for applicability within regional and community contexts and capacity, and further discussed and prioritized, keeping these contextual considerations in mind.



Challenges	Opportunities to Consider
<p>1. Internal organizational limitations and challenges competing with other priorities.</p>	<p>Demonstrate and communicate commitment to and support for HBE work.</p> <ul style="list-style-type: none"> ■ Seek support and encourage clear, consistent and frequent communication from senior leaders regarding the value and importance of HBE work. ■ Collaborate with the Ministry of Health to revisit the intent behind the Healthy Community Environments model core program and continue to move towards best practices. ■ Allocate more resources and funding to support health authorities in doing HBE work. ■ Make changes to the Local Government Act to make “health” a requirement in legislation. ■ Internally, be proactive and selective in choosing what you are going to work on, focusing on opportunities to be value-added. ■ Educate internal staff (in particular, generalist EHOs) as to the scope and extent of HBE work currently being conducted, so that they can identify additional opportunities to bring an HBE lens.
<p>2. Skill set gap and significant time and resources required for training.</p>	<p>Continue to support individuals and groups doing HBE work by developing new materials, refining and updating existing materials and exploring training opportunities.</p> <ul style="list-style-type: none"> ■ Develop deeper layers and richer material as support resources. ■ Support staff in staying up-to-date with current information and research. ■ Organize individual or joint training as appropriate for each health authority’s scope of HBE work (e.g., equity, social justice, social determinants of health or an overview of assessment processes). ■ Develop and use process documents to guide HBE work. ■ Develop regional checklists to facilitate the work of HBE EHOs.

Challenges	Opportunities to Consider
<p>3. Working in silos and internal/external duplication.</p>	<p>Increase role clarity and create opportunities to share information and improve collaboration.</p> <ul style="list-style-type: none"> ■ Where required – Consider organizational restructuring within health authorities to more effectively support role clarity and collaboration. Create efficient and effective processes within regions for providing input to local governments. ■ Explore ways to share and continue to maximize the use of resources that already exist. ■ Establish an HBE community of practice. ■ Support collaborative works across health authority HBE EHOs – particularly for cross-boundary work (e.g. submitting joint letters or consistent messaging), but also for sharing experiences and best practices. ■ Create an online national discussion forum/repository of information. ■ Look for synergies and opportunities to improve communication, collaboration and alignment between Healthy Communities program and HBE teams.
<p>4. Challenges measuring HBE outputs & outcomes.</p>	<p>Review and improve existing data gathering efforts (including qualitative and success stories) to track and articulate the outputs and outcomes of health authorities' HBE work.</p> <ul style="list-style-type: none"> ■ Refine and improve internal health authority reporting. ■ Work with Healthy Communities program partners to establish provincial reporting mechanisms (e.g., by creating a Performance Measure on HBE). ■ Create partnership agreements or sign on to strategic processes in communities. Once signed - identify, encourage, monitor and measure implementation of activities and priorities in order to report on improvements to the health of the community that occur as a result of the plan being followed. ■ Engage in reflection following collaborative HBE initiatives and data gathering around them, to help improve future feedback collection efforts.

Challenges	Opportunities to Consider
<p>5. Challenges describing the work (internally and externally) and others understanding it.</p>	<p>Foster increased awareness of HBE work and its value and inspire others.</p> <ul style="list-style-type: none"> ■ Develop a clear vision and mandate for your HBE program. ■ Communicate effectively and often (internally and externally) about the value and successes of HBE work (e.g., case studies). ■ Invite generalist or specialist EHOs into HBE processes as appropriate in order to help garner support for HBE work. ■ Link your work to organizational priorities (or vice-versa). ■ Share these report findings widely within BC and nationally as appropriate (e.g., the CIPHI conference and other national venues).
<p>6. Recognizing that existing resources do not have an Indigenous lens and are mostly urban-centric.</p>	<p>Refine and updating existing materials and explore training opportunities in order to bring both an Indigenous lens and small/rural & remote communities lens.</p> <ul style="list-style-type: none"> ■ Arrange a dialogue with provincial and federal Indigenous organizations, i.e. First Nations Health Authority, Indigenous and Northern Affairs Canada (INAC), to learn more about appropriate engagement strategies with First Nations communities. ■ Apply an Indigenous lens to existing materials and develop new materials where required. ■ Apply a small/rural and remote communities lens to existing materials and develop new materials where required to support HBE work in these municipalities (e.g., populations under 10,000).

The top four facilitators highlighted in this report are cross-cutting in the sense that they are foundational elements that help HBE teams to be maximally effective. For example, ensuring strong and consistent leadership support is an underlying element that will support all of the activities undertaken by an HBE team. The same can be said of knowing your communities, selecting the right people to do the work and communicating who you are and what you do. For that reason, it is strongly suggested that plans be put in motion to encourage and develop the four key facilitators at the same time as the challenges are being addressed. The remaining facilitators have been embedded in the opportunities to consider.

Several figures and appendices are included in this document to summarize consultation results:

Figures:

- Figure 1: Summary of HBE work in BC (see Appendices 2 and 3 for details)
- Figure 2: History of HBE work in BC Health authorities
- Figure 3: Current HBE work in BC Health authorities

Appendices:

- Appendix 1: Consultation participants
- Appendix 2: Detailed history of HBE work in BC
- Appendix 3: Key resources and processes

Conclusion

Through the information gathering process for this project, it became clear that each of the health authorities has approached the challenge of conducting HBE work in their region differently. Those involved have been charting new territory and in doing so, have learned many valuable lessons that others can benefit from.

Participants stressed the importance of upstream prevention efforts within public health as an effective strategy to reduce the growing burden of chronic disease^b. They agreed that this is an important and valuable role that EHOs are well-positioned to play and also recognize longer term impacts that this work contributes to such as: improved health outcomes for BC residents; increased job satisfaction for EHOs involved in HBE work; and, enhanced overall profile for Health Protection Environmental Health teams, Population Health & Public Health teams, and health authorities as a whole.

HBE teams are working effectively with local governments to bring a health lens to planning processes as demonstrated in case study examples highlighted in this report. Over the years, local and provincial organizations have also produced a robust collection of information, training materials and practice documents to guide, inform and standardize this work. Participants stressed, however, that we need to keep enriching the material and adding deeper layers in order to stay current and be maximally effective, while also enabling and supporting staff to stay up-to-date with current information and research. We also need to continue emphasizing the “value add” of HBE teams to local governments and to follow through with communities to identify and communicate how the HBE team’s involvement contributed to improved community health. And, finally, as HBE is a new and emerging area, it will be important to ensure that support is available for local governments to investigate issues raised by HBE teams.

Participants emphasized that strong internal support from each of the health authorities is required for continued success in their efforts to proactively influence the way our built environments are shaped,

^b Upstream prevention in terms of public health is about addressing the things that have the greatest influence on health, i.e. the social determinants of health such as safe housing, nutrition, social well-being, and access to employment opportunities and important services like healthcare.

and highlighted a need for the work of HBE teams to be prioritized, communicated, and resourced adequately.

Moving Forward

It is important to emphasize that this foundational piece of work was not a gap analysis. Rather, it was a strengths-based inquiry intended to identify challenges and lessons learned, but also to identify areas of strength that can be built upon and to make suggestions for how to build on and improve existing HBE work. What is found in this report is an organized list, which is expert-informed and experiential-based, of all the promising practices that best support healthy built environment work in BC. Each health authority that provided information to the project is now in a position to read it through the lens of their own organization's environment, structure and priorities before deciding whether or how to use the information.

The Phase 1 report can be used in two ways:

1. Each health authority can use it to inform its own HBE work plan by reflecting on how the promising practices identified are already integrated into existing activities, and considering how others may be incorporated.
2. The Health Authority Healthy Built Environment Council (HAHBEC) can use it to identify actions that could be taken collectively in order to move the HBE agenda forward in BC.

The rich information gathered in this project can help chart a future direction for HBE, including opportunities for collaboration between organizations and across the province. Since the completion of the report, all of the challenges and opportunities to consider that were articulated in the Phase 1 report have been organized into a Framework for Action. The most appropriate group or organization to lead particular actions has been identified. Four questions were asked to help inform the prioritization of actions:

1. What actions could/should we be doing collectively (led by HAHBEC)?
2. What actions can PHSA/BCCDC lead?
3. What actions do we want to ask others to lead (e.g., Ministry, NCCEH)?
4. What actions are most appropriately led at the local, health authority level (either by HBE teams or others)?



During 2018 (Phase 2), health authority participants will be having conversations around whether/how the findings of this report can inform their current and future work. The HAHBEC has reviewed the opportunities to consider identified in this report and will be pursuing the priority actions it has identified as follows:

Opportunities to Consider	Priority Actions
<p>1. Develop and share process documents to guide HBE work.</p>	<ul style="list-style-type: none"> ■ HAHBEC will create two documents to support HBE teams in their work: <ul style="list-style-type: none"> ◦ Resource to support orienting HBE staff called “HBE Provincial Framework”) ◦ Outline to support training of new HBE staff
<p>2. Look for synergies and opportunities to improve communication, collaboration and alignment between Healthy Communities & HBE teams.</p>	<ul style="list-style-type: none"> ■ HAHBEC action currently being explored. <ul style="list-style-type: none"> ◦ Resource to support orienting HBE staff called “HBE Provincial Framework”) ◦ Outline to support training of new HBE staff
<p>3. Establish provincial reporting mechanisms (e.g., by creating a Performance Measure on HBE).</p>	<ul style="list-style-type: none"> ■ HAHBEC to identify how best to ensure it informs the process being undertaken by BCHC/Ministry to look at provincial reporting.
<p>4. Communicate effectively and often (internally and externally) about the value and successes of HBE work (e.g., case studies).</p>	<ul style="list-style-type: none"> ■ Individual working group members to report on the outcomes of this project within their health authorities.
<p>5. Share these report findings widely within BC and nationally as appropriate (e.g., the CIPHI conference and other national venues).</p>	<ul style="list-style-type: none"> ■ HAHBEC to report on the outcomes of this project at the EH Advisory Committee and at other tables/venues as appropriate.

The Working Group guiding this project identified that over time, it would be beneficial to pursue the goal of identifying how HBE fits within the broader context and helping to build it out of its silo by collaborating and aligning with others doing similar work. The group thought that a broader strategic planning process involving stakeholders from across the province would help support achievement of that goal. The Working Group further agreed, however, that it is important to first lay a strong foundation that builds awareness and strengthens the identity of HBE teams before embarking on any larger strategic planning process, so that all those invited to participate have a solid understanding of and appreciation for the HBE teams' work. The focus for 2018 will be internal communication within health authorities; a later focus will be external communications with a broader range of stakeholders.

Project Summary

Rationale and Objectives

This project was initiated by the BCCDC with the goals of creating institutional memory as to how HBE work has evolved in the health authorities, and identifying how this work can best be supported going forward. It has received guidance and direction from Healthy Built Environment (HBE) Leads representing all of BC's Health authorities.

After 11+ years of operation, BC's HBE Team Leads from across the province came together to reflect on the process of their evolution, their strengths and the different challenges they have encountered, and where best to direct their energy and resources in order to continue moving the HBE agenda forward.

The first step in this project was a situational analysis to document the different histories of HBE teams in each of the health authorities, from the initial Ministry directive to the current state. Participants wanted to highlight the many positive accomplishments of their teams, and also to articulate the common barriers and facilitators (or levers of success) to effective HBE work that they have experienced along the way.

The hope was that doing so could help chart a future direction for HBE, including opportunities for collaboration between organizations and potentially across the province. It was further hoped that the findings would showcase BC as a leader in HBE work, and potentially encourage the increased involvement of EHOs in HBE work across the province.

The objectives for the final report were to:

1. Describe how HBE teams across the regional health authorities (RHAs) and the First Nations Health Authority (FNHA) have differently evolved since the Ministry directive to target healthier built environments was received in 2009;
2. Describe the current state of how HBE work is functioning, including challenges and best practices experienced in each health authority;
3. Highlight successes in the form of case studies and outcomes;
4. Identify learnings, facilitators and barriers; and
5. Generate a menu of next steps/ opportunities for consideration that would help continue advancing the HBE agenda in BC.

Definitions

“**HBE work**” and “**HBE team**”- Each of the health authorities has labelled the groups of staff they have working on HBE differently – some use the term “team”, some use the term “program” and often the terms are used interchangeably, as they are throughout this report.

It is important to note further that EHOs are not the only individuals doing HBE work in health authorities. Other health authority roles that liaise with local governments for the purpose of HBE also include (but are not necessarily limited to) the following:

- HBE Managers
- EHOs (generalists – not having a specific HBE designation)
- Licensing officers/ Drinking water specialists
- Public health planners
- Medical Health Officers
- Policy consultants/analysts
- Population & public health specialists
- Environmental health scientists
- Community health specialists/facilitators
- Community health/community engagement leads
- Health living specialists/leads
- Public health epidemiologists
- Food security leads
- Dieticians

These are all important roles and many of them work in close collaboration on HBE work. In order to keep the scope of this project manageable, however, the EHO role was the focus.

Each health authority has an HBE team and/or generalist EHO who apply an HBE lens to their work. Some focus only on HBE-related activities, while others balance HBE work with legislated responsibilities related to inspections. These HBE EHOs work cooperatively with local governments to proactively support healthier urban planning and design. By participating in planning discussions with local governments, non-profit organizations and other community partners, the primary role of HBE team members is to serve as health experts who provide credible information on the population health implications of options being considered and recommendations on how healthier built environment planning principles can be incorporated. Planning processes that HBE team members typically engage in include official community plans, regional growth strategies, transportation strategies, local developments, by-law amendments or zoning by-laws, land use referrals, planning around food environments (e.g., development of food quality standards), and health and wellness plans.

HBE team members focus on building the relationships required to establish trust and understand the unique needs and opportunities in each of their communities so that they can work collaboratively with partners to build healthier communities.

Methodology and Data Collection Tools

Focus Group

A 90-minute focus group was held with eight participants representing each of BC's health authorities (See Appendix 1 for a list of participants). The high-level strategic discussion centered on historical context, facilitators and barriers, and options for moving forward.

Individual Interviews

One-hour individual interviews were conducted with eight participants (See Appendix 1 for a list of interviewees). The interviews dove deeper into questions about the origins and early days of HBE work in the health authorities, program mandate and priorities, and program implementation details such as structure, timing, resources, and the HBE role.

Chronology of Events: HBE Teams

Starting Point: Ministry Directive

Participants described where the original concept came from, what the directive looked like, and whether the health authorities had a shared understanding.

- Project participants who were present in 2006 indicated that they had been consulted to varying degrees in the development of some of the evidence reviews and model core program papers by participating in working groups and by reviewing document drafts.
- The model core program papers were distributed from the Ministry to the health authorities via appropriate Executive Directors. Those who were present at that time also participated in the creation of the health authority improvement plans.
- The health authorities were each at different starting points in terms of having capacity (both in terms of human resources and health promotion competency) to do this work, and so each approached it differently.
- There were no formal, organized discussions at this time between health authorities regarding how they were taking on this challenge. A few individuals touched base informally to share ideas about how their health authority was approaching HBE work, but there were no province-wide conversations until the Health Authority HBE Council (HAHBEC)^c was established in 2011.

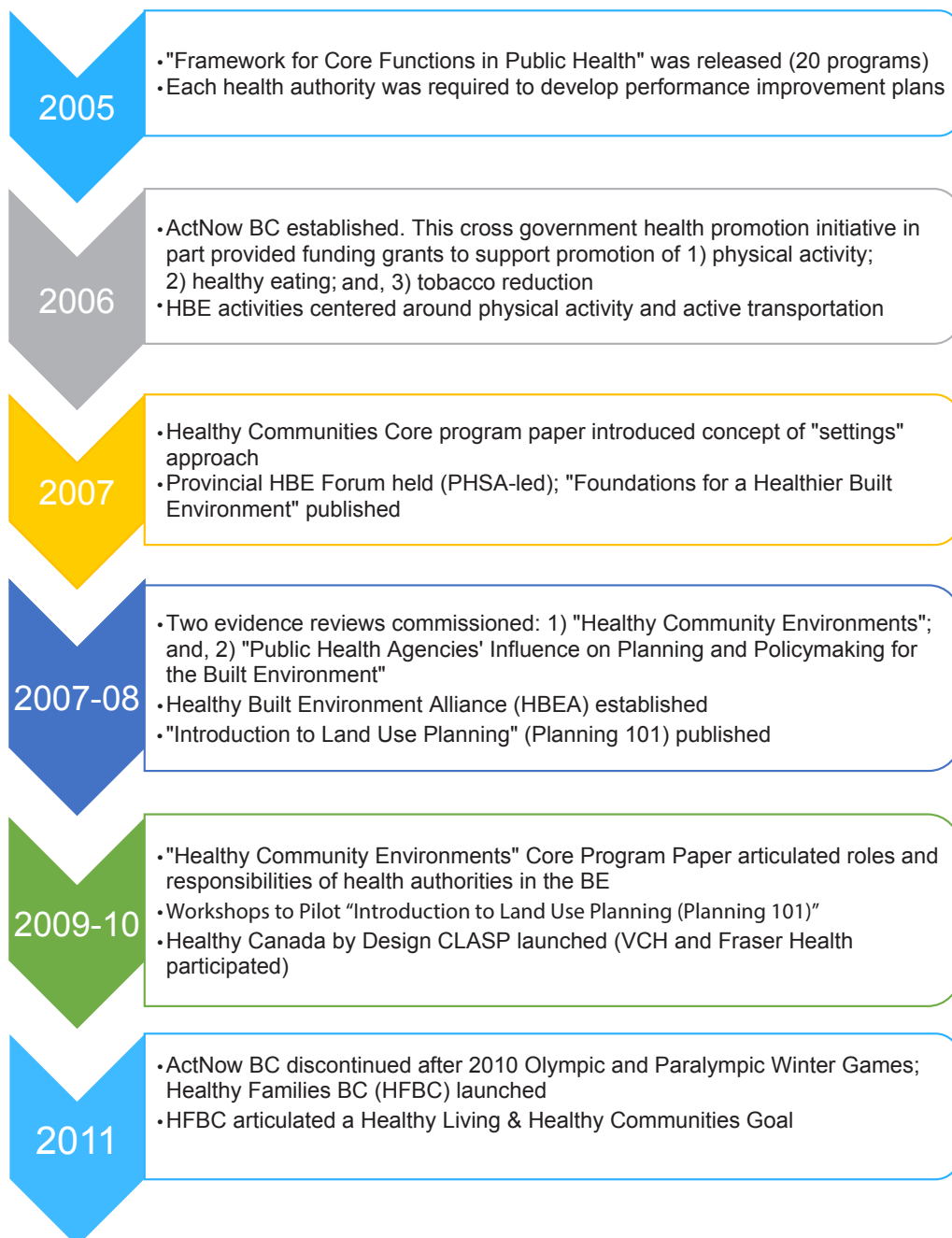
^c The HAHBEC is comprised of representatives from each of the RHA HBE teams, the Ministry of Health and PHSA/BCCDC.

History of HBE Teams in BC

Figure 1 below provides a timeline of events relating to the development of HBE teams in BC.

For a complete history of how healthy built environment work originated and evolved in BC, see Appendix 2. Appendix 3 lists key resources and processes led by various organizations such as the Ministry of Health and Healthy Families BC (HFBC, now referred to as Healthy Communities), as well as those led provincially by non-Ministry organizations such as the Provincial Health Services Authority (PHSA), BC Healthy Communities PlanH program, the National Collaborating Centre for Environmental Health (NCCEH) and BC Institute of Technology (BCIT).

Figure 1: History of HBE Work in BC





Current State

HBE teams were established across BC spanning an eight-year period from 2006 to 2014 as follows:

- VCH - Started with one HBE Lead in 2006; established a team of two HBE EHOs and one Senior EHO in 2014.
- Interior Health - Started with one HBE EHO in 2007; established a team of four HBE EHOs in 2012; cross-trained four additional staff in HBE in 2016.
- Northern Health - Hired an HBE Manager in 2009; hired a team of three Public Health (PH) Planners focusing on HBE in 2009; in 2015 the PH Planners moved into roles as Regional Leads, supervising EHOs.
- Fraser Health - The HBE portfolio started in Healthy Living in 2010 then shifted to Health Protection with a team of 3.5 HBE EHOs in 2012. As of July, 2017 the team consists of six EHOs^d, each of whom work .5 in HBE and .5 in their inspection/legislative portfolios.
- Island Health - One Regional Built Environment Consultant position was defined in 2013.

See Figure 2 for a chronology of HBE activities specific to regional health authorities. Only the five geographically based regional health authorities are included in this chart. FNHA was consulted in this project, but it is not included in this particular chart because it is still in the very early stages of defining the EHO role and expectations vis-à-vis HBE work.

See Figure 3 for an overview of current HBE work in regional health authorities.

^d There is capacity to have 7 individuals – the vacant position is currently in the process of being filled.

Figure 2. History of HBE Work in BC's Health Authorities

Northern Health	Interior Health	Island Health	Fraser Health	VCH
<p>2009 - HBE Manager & team of 3 Public Health Planners focusing on HBE hired (6 month training).</p> <p>2010 - Team prioritized the need for upstream solutions to address high chronic disease rates.</p> <p>2010 – Broad group of EHOs did extensive leadership dev program. Engaged all PH Leadership.</p> <p>2011-15 – Both PH Planners and Pop Health & Comm. Engagement worked with communities - many positive working relationships with communities. Eventually 21 EHOs trained to be secretariat supports in all healthy community committees.</p> <p>2015 – Org. restructuring moved PH Planners into Regional Lead roles & became more geographic based.</p> <p>2015 - Comprehensive engagement strategy for reviewing OCPs est.</p> <p>2016-17 – Exploring ways to balance inspection frequencies and HBE.</p>	<p>2007 - 1 EHO moved into a new Healthy Community Enviro's role.</p> <p>2009 - Discussion started re: healthy community environments as part of Health Protection.</p> <p>2009 - Planning 101 trialed in Cranbrook. Much confusion about roles and expectations.</p> <p>2010 - Did Planning 101 training in Kelowna & Kamloops. Group started gathering steam.</p> <p>2010 - Successful workshop in Vernon that included EHOs, planners and local governments.</p> <p>2011/12 - Funding redirected from HP to create 4 HBE EHO positions (2 FT and 2 PT).</p> <p>2013 – Trained 4 new HBE EHOs & launched central intake process.</p> <p>2016 – # HBE focused staff increased to 8 individuals & additional training provided.</p> <p>2017 – Establishment of HC team.</p>	<p>1990's to 2013 - An Enviro Health risk Assessment consultant (mostly worked on projects like air quality).</p> <p>2013 - One Regional Built Environment Consultant position defined.</p> <p>2016 – HBE component added to all EHO's work plans and individual EHO time tracker.</p> <p>2016 – Established an HBE Committee to develop/review any HBE documents for HP.</p> <p>2016-17 – Training (based on provincial workshops) for 40 staff (all EHOs, Community Health Network and Senior Coordinators).</p> <p>2016-17 – New land-use referral and intake process articulated and shared with local governments.</p>	<p>2010-11 – Meetings of MHOs and CHS's to discuss what HBE work might look like.</p> <p>2012 - Started 1st team's training (4 mths).</p> <p>2013 - 1st team of 3.5 FTEs started in their communities.</p> <p>2014 – Piloted process of moving EHO into an HBE part-time capacity.</p> <p>2015 - Explored options for increasing capacity to do HBE work.</p> <p>2016 - Offered opportunity for 7 EHOs to do HBE work.</p> <p>2017 – Comprehensive training provided for new HBE team. 50/50 split started in April (Each HBE EHO works .5 in HBE and .5 in their legislative portfolio).</p>	<p>2006 - Healthy Communities and Food Security Lead hired.</p> <p>2009 - Healthy Environments Committee working with District of North Van (very active MHO).</p> <p>2009-11 - CLASP grant allowed hiring of Planner to support North Van work.</p> <p>2011 - HFBC launched & VCH HBE work picked up steam.</p> <p>2014 - HBE program established under Health Protection, who designated 2 EHOs and 1 Senior EHO to work on HBE regionally.*</p> <p>2016 - Senior EHO appointed lead for the HBE team.</p>

* Note: the senior EHO at this point had HBE under his portfolio but was not actively engaged as the team still worked under the direction of the Pop Health HBE Lead until July 2016.

Figure 3. Current HBE Work in BC's Health Authorities

Health authority	Resources	Current State	Future Directions	Strengths
Vancouver Coastal Health	<ul style="list-style-type: none"> 1 HBE Manager 2 Regional HBE EHOs work with 3 Pop Health team Leads 4 Senior EHOs that work in their local HSDAs on HBE issues and as part of the Regional HBE committee Regional MHO consultative support Environmental Health Scientist consultative support 	<ul style="list-style-type: none"> Recent reorganization within VCH. More focused scope for HBE EHOs; Pop Health taking more of an HBE lead. HBE program plan recently approved. 	<ul style="list-style-type: none"> Improving role clarity. Improving internal communication & approval processes. 	<ul style="list-style-type: none"> Strong working relationships built with many communities & partnership agreements have been established. Senior EHOs received provincial training and take the lead in the respective Health Service Delivery Areas. Pop Health has much expertise to share. HBE EHOs engaged.
Fraser Health	<ul style="list-style-type: none"> 1 HBE Manager 6 HBE EHOs (.5) work closely with partner Community Health Specialists (CHS's) in communities MHO consultative support 	<ul style="list-style-type: none"> Recently trained more EHOs to do HBE work (.5 HBE; .5 Generalist EHOs). Most of the team at introductory health promotion competency level. Program plan exists including HBE outcomes & indicators. 	<ul style="list-style-type: none"> Continuing to provide training & mentoring. Trialling & refining reporting mechanisms. Identifying ways to engage even more EHOs in HBE work (e.g. in specific tasks or initiatives). 	<ul style="list-style-type: none"> Supportive senior leadership. Managers supportive of matrix reporting. HBE EHOs engaged. Comprehensive training resources.
Island Health	<ul style="list-style-type: none"> 1 HBE EHO consultant 30 individuals have received introductory training to apply HBE lens (Generalist & Senior EHOs) Regional MHO consultative support 	<ul style="list-style-type: none"> Island-wide training has taken place using provincial training materials. EHOs getting their feet wet doing HBE work. 	<ul style="list-style-type: none"> Continuing to identify & meet training needs and mentor EHOs. 	<ul style="list-style-type: none"> Supportive Managers, MHOs. EHOs engaged.

Health authority	Resources	Current State	Future Directions	Strengths
Interior Health	<ul style="list-style-type: none"> 1 Specialist EHO, 2 EHOs, 4 Community Health Facilitators 1 HC Team Lead 	<ul style="list-style-type: none"> Put all 8 staff through robust 8-week training to achieve core competencies in “healthy communities work”. New HC Team Lead has been identified. Additional program staff brings discipline-specific content expertise. 	<ul style="list-style-type: none"> Identifying role/ workload breakdown for each team member. 	<ul style="list-style-type: none"> Comprehensive intake process established. Comprehensive training provided. EHOs interested in doing HBE work.
Northern Health	<ul style="list-style-type: none"> 1 Regional Manager 3 Regional Leads 21 Generalist EHOs 	<ul style="list-style-type: none"> Recent organizational restructuring and re-prioritization has moved HBE mostly into the portfolio of the Healthy Community Developments program. 	<ul style="list-style-type: none"> Undertaking a health-authority wide, Northern Health approach to Healthy Communities. Continuing to explore ways to balance inspection frequency expectations and HBE/ healthy community opportunities. 	<ul style="list-style-type: none"> Managers with significant HBE experience. Relationships with communities developed. EHOs interested in doing HBE work.
First Nations Health Authority	<ul style="list-style-type: none"> 1 Program Manager 5 EHO Managers 25 Generalist EHOs 	<ul style="list-style-type: none"> Role of EHO is non-legislative and based on relationship-building and being invited in. Work consists of inspections, education & training with some opportunity to bring HBE lens (mostly re: housing). HBE involvement largely based on individual knowledge and interest. 	<ul style="list-style-type: none"> Looking at how to organize internally to best do HBE work Future need: Identifying/ articulating expectations re: HBE. Considering whether/how inserting an HBE lens into the Comprehensive Community Planning Process. More training around housing to be provided. Applying Indigenous lens to existing HBE materials 	<ul style="list-style-type: none"> EHOs have strong community engagement skills & established relationships with communities. EHOs interested in doing HBE work.

Results & Discussion

Success Stories and Case Studies

Participants were asked to provide examples where individuals in their health authority have brought an HBE lens to a planning activity and have been able to have a positive impact in terms of short, medium or long terms outputs or outcomes. Listed next are the highlights of several case studies from each health authority.

VCH

Initiative #1: District of Squamish Official Community Plan (OCP)

- **Nature of the Activity or Initiative:** VCH has been working collaboratively with the District of Squamish on their Official Community Plan (OCP), which sets a vision for how Squamish will develop over the next 25 years and help guide decisions on planning, land use and community services. VCH has provided health expertise on the three key health issues highlighted in the OCP: 1) Early Childhood Development; 2) Active Transportation; and, 3) Food Systems.
- **Health authority participants:** MHO, Population Healthy Policy Consultants, Senior EHOs, Dietitians, Public Health Managers, Public Health Nurses and HBE team.
- **Timeframe:** ongoing
- **Location:** District of Squamish.
- **Outputs/Outcomes:** yet to be assessed

Initiative #2: Requests from Partnering Organizations for Direct HBE Comment and Input

- **Nature of the Activity or Initiative:** Development of initial partnership plans and coordinated work and discussion between VCH and local governments in order to enable health authority participants to receive, review and provide comments on planning documents (e.g., bylaw amendments, zoning bylaws). The goal has been to be involved in and/or provide feedback on planning processes as early on in the process, while they are still being framed, so that a health lens can be considered and applied.
- **Health authority participants:** Main health authority participants have included the HBE team, MHOs, the Population Health team and VCH Environmental Health teams across the region.
- **Timeframe:** Over the course of 2017.
- **Location:** Squamish-Lillooet Regional District (SLRD), City of Powell River, North East False Creek, Vancouver.

- **Outputs/Outcomes:** Plans or project reviews are now being submitted by local governments and other organizations to the VCH HBE team for direct comment during initial phases rather than later on when the plans had already been established or near completion. VCH has also participated in the framing of a Health Impact Assessment (HIA) desired by the City of Vancouver (CoV) on the North East False Creek work. CoV has decided to incorporate a health lens into documents in a different manner. An area plan will contain social health outcomes with a focus on healthy communities, while the scope of the HIA has been brought down to a much more manageable scale (to be drafted by January 2018). It has prompted discussion for a lessons learned session where they will discuss how to best provide social and environmental exposure perspectives in the future and has opened the doors to more communication with the Engineering and Planning Departments as to the optimal timing to provide comments for issues that impact health.

Initiative #3: HBE and Community Care Facilities Licensing (CCFL)

- **Nature of the Activity or Initiative:** Many of the HBE principles align with the requirements listed within the Child Care Licensing Regulation. With the support of the Regional Manager of Community Care Facilities Licensing, a checklist was created to determine what would be the best location with regards to HBE principles such as environmental pollutants, noise, traffic safety, outdoor play space and needs assessment. Several workshops were provided to Child Care Licensing Officers in an attempt to align HBE principles with Child Care Licensing work and legislation.
- **Health authority participants:** CCFL Manager, Child Care licensing officers, Environmental Health Scientist, MHOs, two Senior EHOs, HBE EHO.
- **Timeframe:** Spring 2016 to spring 2018
- **Location:** Throughout the VCH region.
- **Outputs/Outcomes:** A checklist was generated by the HBE team and required knowledge translation supports were identified by an Environmental Health Scientist.

Interior Health

Initiative #1: Regional District of Central Okanagan – Reduce Energy Consumption and Emissions Action Plan

- **Nature of the Activity or Initiative:** Created an action plan to further reduce community energy consumption and emissions at a local community level.
- **Health authority participants:** Community Health Facilitator, HBE Specialist, HBE Team Lead, stakeholder participants in workshops providing healthy communities perspective.
- **Timeframe:** Elkford 2015; RDCK 2016.
- **Location:** Regional District of Central Kootenay (RDCK), Salmo, Elkford.
- **Outputs/Outcomes:** Interior Health's information and influence in these processes were primarily about healthy natural environments and healthy transportation networks. Although the focus of the

engagement was reducing energy consumption and emissions, the means to accomplish these goals and the outcomes support healthy communities and improved population health.

Initiative #2: City of Kelowna – Healthy City Strategy

- **Nature of the Activity or Initiative:** Formal partnership agreement between City of Kelowna and Interior Health (IH). It is a long term integrative plan that focuses on healthy places and spaces, community health and quality of life for all Kelowna residents. It is intended to promote integrated decision-making and is proposed to be a companion document to the Official Community Plan with implementable actions in six theme areas: Community for All, Healthy Neighbourhood Design, Healthy Housing, Healthy Natural Environments, Healthy Food Systems, and Healthy Transportation Networks.
- **Health authority participants:** Team approach but the core members of the IH team includes: MHO, Promotion and Prevention Manager (now retired). A Community Health Facilitator and HBE Specialist provide backbone support.
- **Timeframe:** “Community for All” theme area is complete. “Healthy Housing” work is ongoing as of spring 2018.
- **Location:** City of Kelowna.
- **Outputs/Outcomes:** The information the IH team provides, which is supported by health research, helps to inform the City’s public planning documents and provides health considerations for decision making. It accomplishes IH’s goal of “health in all policy”.

Initiative #3: City of Kamloops – Kamplan update (OCP refresh) and Implementation & Monitoring Plan

- **Nature of the Activity or Initiative:** Updating the Official Community Plan and Creating Implementation and Monitoring Plan. Health authority representatives have done the following: 1) Provided technical review and comments from health perspective based on healthy built environment research for Phase 2 Public Input Report and Phase 3 draft OCP; and, 2) Provided technical comments and support for developing indicators to use for monitoring and evaluating healthy community OCP policy statements.
- **Health authority participants:** Community Health Facilitator, HBE Specialist EHO, Community Health Facilitator, Public Health Epidemiologist.
- **Timeframe:** 2014 - end date unknown.
- **Location:** City of Kamloops.
- **Outputs/Outcomes:** The draft OCP contains a vision, policy and objectives which health research has demonstrated will support a healthier population. A relationship has developed so that IH can continue to work with City staff on an OCP implementation plan by providing expert knowledge and health-related information and data to support policy statements becoming reality.

Island Health

Initiative #1: Air Quality Monitoring - City of Victoria

- **Nature of the Activity:** Air quality monitoring and sulfur dioxide emissions in James Bay. The Regional Built Environment Consultant worked with Cruise Line International Association, James Bay Neighbourhood Association, the Greater Victoria Harbour Authority and Ministry of Environment to improve air quality in the local area through health messaging to support reductions in sulfur dioxide emissions via adaptations in onboard technologies and fuel use.
- **Timeframe:** 2006-2018.
- **Location:** James Bay
- **Outputs/Outcomes:** Through this collaborative effort and changes to the International Maritime Organizations (IMO) Regulations (overseen by Transport Canada), there has been immense improvements in the SO₂ outputs this port used to experience. This case illustrates how enhanced monitoring, educational awareness and a team approach can result in a significant positive health outcome.

Initiative #2: Engagement with Local Government Planners re: Land Use Referrals – Vancouver Island

- **Nature of the Activity:** Presentations and meetings with local government planners to foster relationships for land use referrals to move beyond the regulatory focus to use the HBE lens.
- **Timeframe:** 2014-2016.
- **Location:** Across all of Island Health.
- **Outputs/Outcomes:** Quite recently the door has been opened for Island Health to become more involved earlier in the land use planning process, i.e. in the planning stages of Official Community Plans, Regional Growth Strategies and Master Plan development (e.g., the Cowichan Valley Airshed Strategy to name only one). More local governments than ever before are forwarding planning documents such as OCP updates, area plans and zoning referrals for comment.

Initiative #3: Land Use Referral Process – Vancouver Island

- **Nature of the Activity:** A new land use referral process has been articulated and a letter has been sent under MHO signature to all local governments in two mail-outs letting them know about the new intake process and soliciting land use planning referrals. In this new process, generalist EHOs will be involved and there are new expectations articulated in their role going forward. MHOs will sign off on the feedback provided to these planning documents (e.g., OCPs, Neighbourhood Plans, etc.).
- **Timeframe:** 2017+
- **Location:** All of Island Health.
- **Outputs/Outcomes:** This activity has resulted in an increase in the number of local governments submitting land use referrals.

Fraser Health

Initiative #1: School Travel Plans – New Westminster

- **Nature of the Activity:** HBE EHO applied a health lens during walkabouts and prioritized infrastructure improvements, and worked with Community Health Specialist (CHS) to promote tailored messaging to students and parents.
- **Health authority participants:** HBE EHO.
- **Timeframe:** Feb, 2013 to May, 2016.
- **Location:** New Westminster.
- **Outputs/Outcomes:** This activity has resulted in greater recognition and understanding of HBE work by community and school district members in the working group. Fraser Health's input has positively influenced school travel plans (policies) for each school.

Initiative #2: White Rock OCP Document Review

- **Nature of the Activity:** Met with two lead planners for White Rock, attended open houses and provided feedback and recommendations on OCP.
- **Health authority participants:** HBE EHO
- **Timeframe:** April, 2017.
- **Location:** White Rock.
- **Outputs/Outcomes:** A solid working relationship with planners has been established. Significant HBE feedback was incorporated into the OCP.

Initiative #3: Age Friendly Sub Committee of MACAI – Pitt Meadows/Maple Ridge

- **Nature of the Activity:** Municipal Advisory Committee on Accessibility and Inclusiveness (MACAI) is a new committee formed to discuss implementation of age-friendly community initiatives in Pitt Meadows and Maple Ridge as a result of applying for the Age-friendly Communities grants.
- **Health authority participants:** HBE EHO.
- **Timeframe:** 2017.
- **Location:** Pitt Meadows/Maple Ridge.
- **Outputs/Outcomes:** Communities have shown interest in implementing age-friendly principles.

Initiative #4: Healthy Transportation Networks - Langley

- **Nature of the Activity:** HBE reps will be presenting to councillors on an upcoming bus tour with regards to cycling infrastructure.
- **Health authority participants:** HBE EHOs.
- **Timeframe:** Nov, 2017.
- **Location:** Langley.
- **Outputs/Outcomes:** Health has been invited to the table and has developed a successful working relationship with Langley HUB (former the Greater Langley Cycling Coalition).

Northern Health

Initiative #1: Youth Summit - Terrace

- **Nature of the Activity:** A review of health status indicators and reports suggested that the youth of the greater Terrace area are not as healthy as those in the rest of BC. The Healthy Choice Summit Giving Voice to Healthy Choice was organized in response. The Summit gave youth (grade 8 students) a voice into the health issues they face by engaging them in dialogue and developing strategies that could support a healthier future. It was an opportunity for youth to take part in sessions that matter to them and be provided with new knowledge and tools to tackle the challenges that impact their health.
- **Participants:** The Greater Terrace Area Healthy Community Committee (GTAHCC) led this initiative. The GTAHCC is co-chaired by local government and Northern Health and has a multi-sectorial membership.
- **Timeframe:** April, 2016.
- **Location:** The Summit was held in Terrace, BC, and involved students from Terrace, Stewart, Nass Valley, Hazelton and Kitimat.
- **Outputs/Outcomes:** This activity was an effective first step in catalyzing strategic alliances between stakeholders such as the School Districts, RCMP and Northern Health all of whom share the belief this work will empower youth, and ultimately reduce health inequities and foster health and well-being for youth in the area.

Initiative #2: Deer Cull – Haida Gwaii

- **Nature of the Activity:** This innovative initiative, called the Restoring Balance Project” was the result of many stakeholders coming together to find solutions to the ecosystem damaged by an abundance of Sitka deer that have become a destructive force on the archipelago, 200 kilometres off the B.C. mainland. The deer don't have any predators so there's no real control for their hyper abundance. They are damaging Haida Gwaii's plant life; they eat anything, including all the plants local residents would ordinarily use as their own food. This initiative was a controlled reduction in deer population. With EHO support, culled deer meat ended up in the schools, adult day programs, and Skidegate meals on wheels.

- **Participants:** Northern Health Authority, Parks Canada, Gwaii Haanas National Park Reserve, School District, Provincial Veterinarian, Ministry of Forest, Lands, Natural Resource, and the community members themselves.
- **Timeframe:** Spring, 2017.
- **Location:** Several schools on six of the 200 Haida Gwaii islands.
- **Outputs/Outcomes:** This activity helped establish new and effective community partnerships. It increased food options and food skills, and taught valuable marksmanship skills among the students. In the long-term, after the deer are gone, traditional plants and animals decimated by more than a century of deer foraging will be regenerated and restored.

Initiative #3: Providing Secretariat Support to local Healthy Community Committees – Various Communities

- **Nature of the Activity:** In 2010 Northern Health launched their Partnering for Healthier Communities (P4HCs) approach. Collaborative committees were established in 22 communities with membership from across the community. The committees develop initiatives that are based on community-specific goals and risk factors and are often supported with grants from NH.
- **Health authority participants:** Northern Health provides Secretariat support to Healthy Communities Committees including co-chairing them with local government and providing logistical support to move action plans forward.
- **Timeframe:** 2010 – ongoing.
- **Location:** 22 Communities across Northern Health.
- **Outputs/Outcomes:** This approach has helped support local identification of issues, engagement, and solutions, which have created lasting and effective improvements to the health and well-being of those living, working, learning and playing in northern BC.

First Nations Health Authority

Initiative #1: Health and Housing Program – Province wide

- **Nature of the Activity or Initiative:** Public health inspections of on-reserve housing is conducted on request to identify health and safety hazards; and, awareness and training on public health issues related to housing. The goal is to enhance awareness of health and safety hazards in the home and enable residents and First Nation administration to take actions to mitigate hazards through maintenance and/or renovation.
- **Health authority participants:** The program is delivered by FNHA Environmental Health Officers and supported by the FNHA Senior Medical Officer.
- **Timeframe:** Ongoing program.
- **Location:** Province-wide, First Nations communities.

- **Outputs/Outcomes:** FNHA inspection reports support housing subsidy applications to Indigenous and Northern Affairs Canada (INAC) and Canadian Mortgage Housing Corporation (CMHC) and enable prioritization of renovation subsidies on health and safety issues. Severe conditions and/or vulnerable occupants are considered in recommendations for urgent temporary relocation of occupants and priority renovations. Residents receive information on what they can do to improve the health and safety of their home. Awareness and training supports individual and community capacity-building to manage public health issues.

Initiative #2: Environmental Contaminants Program – Province wide

- **Nature of the Activity or Initiative:** Project-based funding is provided for environmental contaminant studies that identify, measure and prevent associated risks of naturally occurring and man-made environmental contaminants. Studies are community-driven and in response to concerns expressed by the community. The goal is to assist communities to investigate contaminants of concern, provide reassurance where contaminants are within safe levels or, where identified, enhance awareness of contaminants and associated risks and support mitigation of health risks.
- **Health authority participants:** The program is supported by the FNHA Environmental Contaminants Program Coordinator, EPHS Managers, EHO, and FNHA Senior Medical Officer.
- **Timeframe:** Ongoing program.
- **Location:** Province-wide, First Nations communities.
- **Outputs/Outcomes:** Community concerns can be investigated through monitoring, assessment, and other forms of participatory study to identify whether exposure pathways exist and if contaminants are at levels of concern. Projects are required to be participatory, incorporate indigenous traditional knowledge, elders and youth, and effectively communicate results to the community. Assist communities to develop linkages with academic and institutions that can be partners in developing community-based research. Provide public education about environmental contaminants to First Nations leadership and community members.

Initiative #3: Increasing Indigenous Children's Access to Traditional Foods in Early Childhood Programs – Province wide

- **Nature of the Activity or Initiative:** Collaborative project funded by BCCDC in collaboration with BC Aboriginal Childcare Society to understand the barriers to culturally appropriate foods in early childhood programs. FNHA EHOs participated to support discussion on how traditionally harvested foods can be integrated while maintaining food safety. The goal is to identify barriers and opportunities to accessing culturally important traditional foods in early childhood programs.
- **Health authority participants:** FNHA Environmental Health Officers.
- **Timeframe:** 2016 report completion, next steps planning in progress.
- **Location:** Province-wide, on- and off-reserve early childhood programs.
- **Outputs/Outcomes:** Report entitled “Increasing Indigenous Children's Access to Traditional Foods in Early Childhood Programs, June 2016” provides the outcomes to the key activities: environmental

scan, food safety evidence review, key informant interviews, and case studies. The project found that traditional foods are excluded from most jurisdictions in Canada, yet there are no published articles to suggest a higher incidence of foodborne illness in institutional settings. Illnesses are predominantly linked to raw/undercooked foods, fermented foods, or cross-contamination with undercooked game. Overall findings indicate recognition of the importance of traditional and locally harvested foods and a commitment towards solutions to increasing access through development of guidelines, safe food preparation facilities, increasing cultural competency, and training for harvesters and processors.

Initiative #4: Home Radon Monitoring – Province wide

- **Nature of the Activity or Initiative:** First Nations communities have access to no-cost radon testing, results interpretation and recommendations on home radon levels. The goal is to support the identification of and mitigation of high radon levels in on-reserve homes.
- **Health authority participants:** The program is delivered by FNHA EHOs, FNHA Environmental Health Technicians, and EPHS Managers.
- **Timeframe:** 2014 and ongoing
- **Location:** Province-wide, First Nations communities.
- **Outputs/Outcomes:** Awareness of and identification of high radon in homes is improved through monitoring and community capacity building. Results of high radon levels are communicated to First Nation housing and administration staff and support subsidy applications to INAC and CMHC housing subsidy programs. Additional opportunities include enhancing community capacity in radon mitigation and ensuring new homes are built to minimize radon levels inside the home.

Lessons Learned

Participants were asked to share some of the lessons learned as well as provide advice to others embarking on HBE activities. The responses were themed and organized into barriers and challenges as well as facilitators.

Barriers and Challenges

Participants were asked to identify some of the barriers and challenges (past and present) they experience(d) in doing HBE work. The barriers and challenges are listed in descending order in terms of how frequently they were mentioned and/or how significant they were deemed to be.

1. **Internal organizational limitations and challenges competing with other priorities.** In some cases, HBE teams work for months or even years to develop relationships with communities and then are either unable to pursue those relationships due to a managerial directive, health authority strategic or organizational change, change in partnering organizations, or human resources/ labour issue. This can set the relationship building process back significantly. When other work is prioritized before HBE work in terms of time and resources, it is challenging to build or maintain relationships.

2. **Skill set gap.** Challenges are presented by the skill set and work style gap between what exists and what is needed in order to do HBE work. Public Health Inspectors are trained in problem-solving skills required to conduct the legislated/enforcement work they are tasked with. EHOs doing geographic work develop strong communication skills from an educational/legislative background. The evidence supporting their actions is very conclusive. In the HBE EHO role, it is important for individuals to develop new and different communication skills that support them in conversations with other professionals and colleagues rather than speaking with operators. This new role also requires them to strengthen their relationship building skills and to develop proficiency and comfort in navigating ambiguous situations. Another challenge is the need for HBE EHOs to move away from prescriptive, legislative, regulatory language and more towards the collaborative, supportive, encouraging language required in HBE work.
3. **Significant time and resources required for training.** Related to the skill set gap is the fact that training takes a significant amount of time and resources. One participant estimated that it takes one year for EHOs to be meeting expectations and two years for them to be fully skilled up and confident. Adequate supports are often not in place for that length of time. And if turnover happens, then there is significant lost potential as it takes time for all the new individuals to be skilled-up.
4. **Working in silos.** Participants noted that although the province's Healthy Communities and Health Protection programs have worked together in the past, i.e. to respond to requests for input on Regional Growth Strategies, there is opportunity for higher level collaboration. They expressed a strong desire for joint strategizing with Healthy Communities teams on issues of common interest.
5. **Internal/external duplication.** There are often many different departments engaging with local governments. Some RHAs report that they have been doubling up on resources because they have a Healthy Communities Lead and an HBE Lead overlapping in scope, and therefore go as a big group to a community in order to ensure that nothing is missed. RHAs experiencing this challenge agree they need to ensure they organize themselves internally in order to both appear to be and to be coordinated in their efforts and therefore maximize their impact.
6. **Challenges measuring HBE outputs and outcomes.** There currently is no Performance Measure specifically for HBE work. Some health authorities embed their results in their reporting through the Healthy Communities program, but many suggest that HBE work be highlighted independently vs combined with other areas. Participants cautioned that if no specific HBE Performance Measure exists, this may inadvertently send the signal that HBE lacks priority. Participants indicated that within individual health authorities, HBE teams are in the early stages of identifying appropriate HBE outputs and outcomes that will best describe the value of their work. To-date, most internal reporting has involved tracking the number of meetings attended or number of documents reviewed. Future indicators being explored by some RHAs include items like "Number of planning documents where the HBE program's input was incorporated". All participants indicated that sharing case studies with senior leadership tends to be the most effective way to show the impact of their work.

"Unless you can measure it, it doesn't count and people don't see value in it."

~ Health authority participant

7. **Challenges describing the work and having others understand it.** As one participant said “It takes a long time to define and describe who we are and what we do. The complex concepts of ‘social determinants of health’ and ‘working upstream’ take time to explain. In turn, it takes others a long time to understand them.” Another participant observed “The danger is that we often get pulled into all kinds of random situations when nobody knows where else to send them”. Participants said there is room for improvement in identifying who they are and what they do, especially when it comes to articulating what they do beyond land use referral processes and/or noise, air quality (both outdoor/indoor) and water concerns.
8. **Existing resources and knowledge-bases do not have an Indigenous lens or a small community lens.** Participants suggested that “We need a baseline of knowledge and understanding of how best to engage with First Nations Communities before we go into them,” and that, “We need to ensure we don’t overburden First Nations communities when we start working together because of our lack of understanding.” Another gap identified was that an Indigenous lens has not yet been applied to existing resources and many existing resources are not very applicable to rural/remote/small communities. It would be helpful to apply a small communities lens to existing materials and/or develop new materials where required to support HBE work in smaller municipalities (e.g., populations under 10,000).

Facilitators

Participants were asked to identify some of the facilitators for their work and to provide advice to those who might be embarking on efforts to establish an EHO HBE team. The facilitators are listed in descending order in terms of how frequently they were mentioned and/or how significant they were deemed to be.

1. **Ensure strong and consistent leadership support is in place and communicated.** Success of HBE work revolves around leadership support, both from senior leaders (COO, VP, and Chief MHO) and relevant Managers. It is absolutely essential that organizational leaders provide clear transparent and regular support and encouragement in words and in action.
2. **Choose the right people to do the work.** Having people who will be a good fit in the role is essential (i.e., comfortable with ambiguity, flexible, good at building relationships, and good at seeing the big picture and identifying opportunities). Seek out a complementary mix of skillsets and backgrounds. Recruiting individuals with a mix of HBE content expertise and an EHO regulatory lens in partnership with healthy living content expertise and community engagement and relationship building skills is key to moving forward.
3. **Provide tailored and ongoing training.** An adequately resourced, comprehensive training program tailored to the needs of HBE team members, will start the team out with a solid foundation. Even once the initial training is provided, it is important to recognize the significant time it takes to gain competence to work effectively in this area. Opportunities for ongoing professional development and joint problem-solving among HBE team members are key. The good news is that we have many staff in BC who are keen to do the work. There is still a skill set gap in terms of community engagement and relationship building, but that is a skill set that can be both developed (among existing staff) and acquired (from existing health authority staff in other areas such as Population Health, Community Engagement, Community Development and

Community Health Specialists.) A possibility for future consideration might be the creation of an HBE orientation package that is consistent throughout BC.

4. **Provide mentoring opportunities.** There is no shortcut to HBE EHOs getting out into the community and doing the work, but in order for junior HBE EHOs to thrive, they need active and purposeful mentoring, both in-the-moment and not, in order to make each experience a learning opportunity.

5. **Develop and use process documents to guide your work.** For example, the HBE framework, a process document created by the Health Authority HBE Council, is a tool for any EHO or other health professional to use in reviewing an OCP step-by-step and it outlines some consistent messaging and process. This will be helpful in supporting sustainability of HBE work and will make future training much simpler.

“We have moved from theory to practice. At a recent Chronic Disease Prevention Alliance of Canada conference, the Ontario public health units were struggling with that, but we’ve figured out how to do it. BC is a leader in this regard. They were very keen to take a look at our Framework.”

~ Health authority participant

6. **Do the homework – know the communities.** It is critical for HBE teams to do the research, get to know the community and go in with a few key statistics and key messages. Sharing case studies or examples of other work the team has done is key, because such stories are inspiring – they show people what’s possible. Because many communities do not have the capacity or expertise to seek out and compile community health data, this is one of the biggest values-add that HBE teams can bring. HBE teams should be present, be curious and be willing to help – this is the best way to start.

7. **Work hard to develop relationships and recognize that it takes time.** When HBE teams first start work in a community they are likely going to be providing input into processes that are already quite far along and therefore their ability to influence is minimal. Over time, however, as the team gets to know the community and keep their ears to the ground and build relationships, people will be more likely to share things that are coming down the pipe and involve HBE teams right from the beginning, which greatly enhances the team’s ability to influence.

“Our local government is now seeking out our engagement. This is partly due to personal relationships that have been built with specific people, but it is also becoming systematic in the sense that it has become much more common practice to ensure the health lens is at the table. The tide really turned in this direction once our HBE team went and made presentations to the city managers describing past and current work and suggesting how we could add value to their processes.”

~ Health authority participant

8. **Communicate early and often about who the team is and what it does.** Firstly, as an HBE team, it is very important to clearly identify and articulate the team’s vision, mandate and goals. The next critical step is to develop clear, simple communication pieces about who the team is and what it does, in order to raise awareness and understanding (both internally and externally) about the nature and value of the team’s work. Internally this communication should include highlighting projects that are currently underway within the team so that others are aware of its activities; it is important for the team’s colleagues to understand the team’s role so that they can see the

value in collaborating and so they can help identify other opportunities and where an HBE lens can be applied. External communication should include marketing the value-add of the HBE team to local governments so that adding health to the agenda is seen as a priority. Additionally, by ensuring the community knows the HBE team and what it does, community stakeholders are more likely to want to be part of and to financially support initiatives that are accomplishing good things.

“Our EHO staff are much more likely to raise issues they see in their inspections for consideration by the HBE team, because they have a better understanding of what the HBE team does. They flag potential HBE components.”

~ Health authority participant

“Another important win is that the work is drawing in other money in from other sources to communities.”

~ Health authority participant

Participants stressed that there is no danger in over-communicating, but there is a significant danger in under-communicating (people either don't know the HBE team exists and/or don't understand its role and value). It is essential to have front-line Managers supporting staff right from the very beginning and to also engage Medical Health Officers, as the messages of MHOs carry much weight in the eyes of the public.

9. **Communicate your value.** Senior leadership has to be able to see the value before they can communicate it. They often get negative feedback from communities regarding lack of healthcare services, hospital beds, etc. HBE is an opportunity for health authorities to come in and develop positive relationships. Use case studies and put a human face on the example – Whose life was improved because of the HBE team's work? Provide real-life examples of how being involved sooner rather than later can prevent certain situations from generating negative responses and being very labour intensive for EHOs (e.g., putting a compost site too close to a neighbouring community).
10. **Link your work to organizational priorities.** In BC, it is advantageous to tie HBE work to existing organizations strategic plans that relate to healthy living or healthy communities, and to the provincial Healthy Families BC Policy Framework: A focussed approach to Chronic Disease and Injury Prevention. This could potentially help catch the eye of the Ministry as well as health authority senior leaders, and also leverage resources from others. There is also value in approaching it from the opposite direction. With HBE being a new and emerging area of work, it can be effective for HBE teams to identify their direction and then find ways that organizational priorities can support it.
11. **Create effective mechanisms for communicating and collaborating internally** in order to maximize impact and improve efficiency and effectiveness of communication with local governments. For example, establish an internal group that consists of representatives from all the teams who currently are or should be involved in a particular community process. You might

even consider articulating an internal partnership agreement to guide your work. Some RHAs are starting to create inventories of what's happening in each community in order to track activities and many send coordinated responses to local governments from all relevant health authority representatives (e.g., Senior EHO, HBE team, Drinking Water Officer, MHO, dietitians and Population Health).

12. **Create partnership agreements or sign on to strategic processes.** A formal agreement enables a community to establish deliverables to an HBE team, ensures the team is accountable and provides an opportunity to report on its successes/achievements. One important caution is that the partnership agreement process can sometimes be labour intensive – it is important to consider the unique benefits vs. costs of each opportunity. Once a partnership agreement is signed, it is important for the HBE team to identify, encourage, monitor and measure implementation of activities and priorities in order to report on improvements to the health of the community that occur as a result of the plan being followed.

Next Steps: Opportunities for Consideration

As the interviews and focus groups were being conducted, many suggestions were put forward regarding how to best support HBE work in BC. The following summarizes the challenges and related opportunities identified by consultation participants. They are listed in order of declining priority in terms of how strongly they were recommended by participants, with Challenge # 1 being the highest priority.

Potential next steps could be considered at many levels and by many organizations (e.g., individual health authorities, multiple or all health authorities in partnership).

Not every opportunity will be relevant for each health authority, and, when being considered at a health authority level, should be reviewed for applicability. It is important to consider local community context, community health profiles and local knowledge of relevant community planning and health issues.

The content of this section is intended to be used as a starting point for further discussion. In order to prioritize these next steps and identify who would lead them, further discussion will be required amongst all relevant stakeholders.

CHALLENGE #1: Internal organizational limitations and challenges competing with other priorities.

Opportunities to Consider: **Demonstrate and communicate commitment to and support for HBE work.**

- Communicate clearly, effectively and often (internally and externally) about the value and successes of HBE work. Case studies can be very powerful to increase awareness and understanding about HBE work.
- Health authorities expressed interest in having an opportunity to collaborate with the Ministry to identify and articulate the value and importance of a health authority's HBE work. I.e. revisit the intent behind the Healthy Community Environments model core program and talk about how to continue to move towards best practices.
- Allocate more resources and funding to support health authorities in doing HBE work.
- Make changes to the Local Government Act to make "health" a requirement in legislation.
- Internally, be proactive and selective in choosing what work is to be done. HBE EHOs could spend their entire time reviewing documents, but there are many other ways they can bring value. It is critical to proactively identify opportunities where a HBE team can value-add and educate internal staff (in particular, generalist EHOs) as to the scope of HBE work currently being conducted, so that they can identify additional opportunities to apply an HBE lens.

CHALLENGE #2: Skill set gap and significant time and resources required for training.

Opportunities to Consider: **Continue to support individuals and groups doing HBE work by developing new materials, refining and updating existing materials and exploring training opportunities.**

- Explore ways to share and continue to maximize the use of resources that already exist. Some examples include (but are not limited to) the following: Fraser Health's HBE training framework; Interior Health's HBE Program Logic Model; Island Health's Land Use Referral Process, VCH's HBE response letter templates; Northern Health's Comprehensive engagement Strategy for Reviewing OCPs.
- Develop deeper layers and richer material. Stakeholders could each individually and/or collectively encourage and facilitate supportive research. In particular, investigation could be done describing how best to facilitate collaboration within health authorities, and materials to support that collaboration could be identified and/or developed.
- Enable and support staff to stay up-to-date with current information and research.
- Organize individual or joint training as appropriate for each health authority's mandate, to support HBE teams in doing their work. Joint training could be offered on topics of common interest including, but not necessarily limited to equity, social justice, and social determinants of health or health impact assessments (HIAs). It has been suggested that what might be more beneficial than HIA training itself is the provision of a comprehensive overview of all the types of assessments that projects are often subject to, and some discussion regarding how elements of HIA could be integrated into those assessments most effectively as one piece of the puzzle, given time and capacity challenges.
- Develop and use process documents to guide health authority work. For example, the HBE framework, a process document created by the Health Authority HBE Council, is a tool for any EHO or other health professional to use in reviewing an OCP step-by-step, and it outlines some consistent messaging and processes and provides a glossary of terms. This will be helpful in supporting sustainability of HBE work and will make future training much simpler.
- Develop regional checklists to facilitate the work of HBE EHOs.

CHALLENGE #3: Working in silos and internal/external duplication.

Opportunities to Consider: **Increase role clarity and create opportunities to share information and improve collaboration.**

- Where required - Organize health authorities more effectively internally in order to identify overlaps and provide further role clarity around responsibility
 - Clarify who within the Health Authority can and should be involved in HBE work, and what the role and expectations for each level of involvement should be. For example, if HBE EHOs and Population Health staff are involved at a Level 1 (most sophisticated), perhaps other staff are involved at Level 2, 3 or 4 (to be defined).
 - Create efficient and effective processes within regions for providing input to communities (e.g., by establishing internal working groups, creating an inventory of activities in each community, and/or collectively working on documents so everyone can see feedback being provided).
- Establish a community of practice (COP). A monthly meeting has been initiated for EHOs across BC doing HBE work on the ground. The intent was to create a mechanism for discussing issues, challenges and best practices, and for sharing tools and resources. The COP was expected to be an important sharing opportunity since both the number of HBE EHOs across the province and opportunities for them to come together is quite limited. In order to maximize effectiveness, meetings should continue to be focused on sharing information and resources, joint problem-solving, and active discussion about emerging issues and common topics rather than status reporting alone.
- Create an online national discussion forum/repository of information.
- Support collaborative works across Health Authority HBE EHOs – particularly for cross-boundary work (e.g. submitting joint letters or consistent messaging), but also for sharing experiences and best practices.

CHALLENGE #4: Challenges measuring HBE outputs & outcomes.

Opportunities to Consider: **Review and improve existing data gathering efforts (including qualitative and success stories) to track and articulate the outputs and outcomes of health authorities' HBE work.**

- Establish reporting mechanisms (e.g., by creating a Healthy Communities Performance Measure on HBE). This action was proposed as having great potential to support HBE work across BC. Health authorities suggested it would be beneficial if they had an opportunity to work with the Ministry to articulate a Performance Measure designed specifically around HBE in the Healthy Communities reporting process. Participants felt that an HBE Performance Measure would reinforce HBE as a provincial priority, and would encourage Health authorities to resource HBE teams appropriately in order show progress in this area. Health Authorities are looking at ways to integrate their Healthy Communities work and strongly suggested that those efforts could be better supported if consideration was made towards integrating those two streams of work.
- Create partnership agreements or sign on to strategic processes within communities. A formal agreement enables a community to establish deliverables to the HBE team, ensures the team is accountable and provides an opportunity to report on its successes/achievements". One important caution is that the partnership agreement process can sometimes be labour intensive – it is important to consider the unique benefits vs. costs of each opportunity. Once a partnership agreement is signed it is critical to identify, encourage, monitor and measure the implementation of activities and priorities. An important role HBE teams can play is to assess and report on improvements to the health of the community that occur as a result of the plan being followed.
- Engage in reflection regarding lessons learned following collaborative HBE efforts and data gathering around them, to help improve future feedback collection efforts. It would be helpful to determine what processes are the most effective for collecting meaningful feedback, and where areas appear to be redundant, and/or where additional resources are needed to make the feedback more meaningful.

CHALLENGE #5: Challenges describing the work and others understanding it.

Opportunities to Consider: **Foster increased awareness of HBE work and its value and inspire others to engage in HBE work.**

- Develop a clear vision and mandate for the HBE program.
- Communicate clearly, effectively and often about the value and successes of HBE work. Case studies can be very powerful in that regard. Doing so within relevant organizations will increase awareness and understanding about the value of HBE work. This includes highlighting projects that are currently underway within an organization so that others are aware of the HBE work being done. It also includes marketing the HBE team's value-add to local governments so that adding health to the agenda is seen as a priority.
- Invite generalist or specialist EHOs into HBE processes as appropriate in order to help garner support for HBE work.
- Link HBE work to organizational priorities (or vice-versa). In BC, it is advantageous to tie any HBE work to how it contributes to the Healthy Families BC Policy Framework: A focussed approach to Chronic Disease and Injury Prevention. This could potentially help catch the eye of the Ministry as well as health authority senior leaders, and also leverage resources from others. There is also value in approaching it from the opposite direction. With HBE being a new and emerging area of work, it can be effective for HBE teams to identify their direction and then find ways that organizational priorities can support it.
- Share these report findings within BC. It is strongly recommended that a communications plan be developed and implemented so that key messages and information are shared in a purposeful way with particular target audiences.
- Share these report findings at the CIPHI conference and other national venues. BC could demonstrate how it is making progress in some regions in terms of shifting the energy of some EHOs toward more health education and promotion. Processes could be highlighted (e.g., structure, training, overcoming challenges) and successes (outputs and outcomes) and learnings could be shared.

CHALLENGE #6: Recognizing that existing resources do not have an Indigenous lens or a small communities lens.

Opportunities to Consider: **Refine and updating existing materials and explore training opportunities in order to bring an Indigenous lens and a small communities lens.**

Communicate clearly, effectively and often (internally and externally) about the value and successes of HBE work. Case studies can be very powerful to increase awareness and understanding about HBE work.

- Arrange a dialogue with First Nations Health Authority (FNHA) and Indigenous and Northern Affairs Canada (INAC) regarding learning opportunities to train health authority staff about governance structures, planning and infrastructure processes, and how to engage with First Nations communities effectively.
- Apply an Indigenous lens to existing materials and develop new materials where required.
- Apply a small communities lens to existing materials and develop new materials where required to support HBE work in smaller municipalities (e.g., populations under 10,000).

Conclusion

Through the information gathering process for this project, it became clear that each of the health authorities have approached the challenge of conducting HBE work in their region differently. Those involved have been charting new territory and in doing so, have learned many valuable lessons that others can benefit from.

Participants stressed the importance of upstream prevention efforts within public health as an effective strategy to reduce the growing burden of chronic disease.

Participants also articulated the opportunities that would open up if EHOs shifted towards playing a more health education, promotion and preventative role in addressing chronic disease at an upstream level. Some of these opportunities could be:

- **Improving health outcomes for BC residents.** Participants stressed the importance of Public Health moving upstream to engage in more health promotion and prevention as an effective strategy to reduce the growing burden of chronic disease. This growing trend is also being observed nationally.^e Participants agreed that this is an important and valuable role that EHOs are well-positioned to play.
- **Mitigating potential negative outcomes before they occur.** Participants suggested that EHOs are in a good position to bring a community planning lens and flag potentially negative outcomes before they occur (e.g., in one BC community a public outcry arose when a composting station was positioned too closely to the community. If a local EHO had been able to bring an HBE lens to the table earlier in the process, that negative outcome could have potentially been identified and mitigated).
- **Increasing job satisfaction for EHOs involved in HBE work.** In making this role shift, an additional benefit would be increased morale and job satisfaction for those EHOs involved that would come with job variation, strengthened skill sets and enhanced health promotion competency. These skills would be transferrable to topic areas beyond HBE.
- **Raising the overall profile of the health authority.** More staff working in HBE and establishing positive relationships with communities by offering support will lead to a potentially higher profile for Population and Public Health programs, Community Health/Development/Engagement teams and the entire health authorities as a whole.

“There is buzz in the community and recognition among the public about the importance of working upstream. Enthusiasm regarding this work is testament to the fact that this is the way we need to go.”

~ Health authority participant

^e Rideout, K, Kosatsky, T, Lee, K. (2016). “What role for environmental public health practitioners in promoting healthy built environments?” Can J Public Health, 107(1). This article notes that, “Increasingly, many large Canadian public health departments now include built environment teams, which work with municipalities and land use planners to promote and/or require the development of health encouraging spaces. In many public health agencies, it is environmental health practitioners who have assumed the new HBE role, but at what cost to existing mandates? We argue that reinventing roles to increase HBE capacities within environmental health practice would reinforce health protection mandates while building capacity in chronic disease prevention. Significant expansion into the design of healthier built environments may require some reallocation of resources. However, we anticipate that healthier built environments will reduce threats to health and so lessen the need for conventional health protection, while encouraging activities and behaviours that lead to greater population wellness.”

HBE teams are working effectively with local governments to bring a health lens to planning processes as demonstrated in the myriad of case studies highlighted in this report. Over the years, local and provincial organizations have also produced a robust cache of information, training materials and practice documents to guide, inform and standardize this work.

Participants emphasized that strong internal support from each of the health authorities is required for continued success in their efforts to proactively influence the way our built environments are shaped. Participants see a need for the work of HBE teams to be prioritized, communicated, and resourced adequately.

And, finally, another strong message received was the importance of recognizing that this is work that needs to continuously be developed, strengthened and updated. Participants stressed that material keeps needing to be enriched and deeper layers need to be added in order to stay current and be maximally effective, as well as enabling and supporting staff to stay up-to-date with current information and research.

As BC's local governments gain competency in doing HBE work, they will be asking for more sophisticated lenses to be applied and for greater engagement with health authorities. In order to be prepared for that opportunity, the "value add" of HBE teams to local governments needs to be continually emphasized and communities need to be supported to identify and communicate how the HBE team's involvement contributed to improved community health.

Moving Forward

The rich information gathered in this project can help chart a future direction for HBE, including opportunities for collaboration between organizations and across the province. It is hoped that this report will form the basis of further discussions to prioritize next steps, and develop an action plan for moving forward. In order to do that most effectively, further discussion will be required amongst all relevant stakeholders.

Appendices

Appendix 1: Consultation Participants

Focus Group Participants

Vancouver Coastal Health	Claire Gram, Population Health Policy and Projects Lead
Interior Health	Pam Moore, (former) EHO, HBE Team
Northern Health	Doug Quibell, Manager, Public Health Protection
Fraser Health	Oonagh Tyson, Regional Director, Health Protection Sandra Gill, Manager, Environmental Health Services & HBE Program
First Nations Health Authority	Linda Pillsworth, Manager, Environmental Public Health Services, Community Health and Wellness Services, Policy Planning and Transformation
Island Health	Cole Diplock, Manager, Health Protection & Environmental Health Services was invited but declined
Provincial Health Services Authority/ BC Centre for Disease Control	Charito Gailling, Project Manager, Population & Public Health, BCCDC/ PHSA and Karen Rideout, Environmental Health Policy Analyst, BCCDC/ PHSA sat in on the focus group, but were not active participants.

Individual Interviewees

Vancouver Coastal Health	Claire Gram, Population Health Policy and Projects Lead Jonathan Choi, Senior Environmental Health Officer
Interior Health	Pam Moore, (former) EHO, HBE Team
Northern Health	Doug Quibell, Manager, Public Health Protection
Fraser Health	Oonagh Tyson, Regional Director, Health Protection Sandra Gill, Manager, Environmental Health Services & HBE Program
First Nations Health Authority	Linda Pillsworth, Manager, Environmental Public Health Services, Community Health and Wellness Services, Policy Planning and Transformation
Island Health	Jade Yehia, Regional Built Environment Consultant

Appendix 2: History of HBE Work in BC

In March 2005, BC's Ministry of Health released a document entitled A Framework for Core Functions in Public Health. This document was prepared in consultation with representatives of health authorities and experts in the field of public health. It identifies the core programs that must be provided by health authorities, and the public health strategies that can be used to implement these core programs. Once the Framework was completed, individual papers were produced that provided more detail about each of the core programs. Each health authority was required to develop performance improvement plans to articulate how they were going to align their work with the model core programs.

The list currently contains 20 core public health programs.

In anticipation of the Vancouver 2010 Olympic and Paralympic Winter Games, ActNow BC was announced in Mar, 2006. The BC Healthy Living Alliance received a one-time grant of \$25.2 million to pursue recommendations outlined in their report, "The Winning Legacy – A plan for improving the health of British Columbians by 2010." ActNow BC was the government's health and wellness initiative that promoted healthy living choices to improve quality of life, with the aim of leading North America in healthy living and physical fitness.^f In 2006, ActNow BC received a grant to support the promotion of: 1) physical activity; 2) healthy eating; and, 3) tobacco reduction (2006). Act Now's activities related to HBE centered around physical activity and the link to active transportation, but the early seeds of activities related to the other four physical features of the built environment (highlighted in the HBE Linkages Toolkit) can also be seen.

In 2007, The Healthy Communities Core Program paper introduced the concept of healthy communities and taking a "settings" approach to this work, and articulates the fact that the role of Health authorities is to: "Collaborate with local governments, schools districts, key community organizations and groups in promoting healthy local governments, healthy schools and healthy work environments." (See page 6) A program schematic (logic model) is provided in the Healthy Communities Core Program Paper (see pages 38-39) that articulates outputs, short-term and long-term outcomes expected from pursuing the following three objectives: 1) To support positive "health-promoting" environments for all BC citizens by facilitating healthy local governments, healthy schools, healthy workplaces and healthy health care; 2) To enhance the health of vulnerable community populations that are at high-risk for poor health; and, 3) To provide surveillance, monitoring and evaluation of healthy communities programs.

To support positive "health-promoting" environments for all BC citizens by facilitating healthy local governments, healthy schools, healthy workplaces and healthy health care; to enhance the health of vulnerable community populations that are at high-risk for poor health; to provide surveillance, monitoring and evaluation of healthy communities programs.

^f The initiative was led by the Ministry of Health and involved all provincial ministries as well as key external partners, including 2010 Legacies Now, the Union of BC Municipalities, the BC Recreation and Parks Association, and the BC Healthy Living Alliance. ActNow BC's goals by 2010 were to:

- increase the percentage of the B.C. population that is physically active by 20 per cent;
- increase the percentage of B.C. adults who eat at least five servings of fruits and vegetables daily by 20 per cent;
- reduce the percentage of B.C. adults who are overweight or obese by 20 per cent;
- reduce tobacco use by 10 per cent; and
- increase the number of women who receive counselling about the dangers of alcohol and tobacco use during pregnancy by 50 per cent.

Between 2007 and 2008, two evidence reviews were commissioned by the Ministry:

1. Evidence Review: Healthy Community Environments (2008), by the Ministry of Healthy Living and Sport, Population and Public Health. Prepared by: Patti Dods and Ray Copes (Part 1) – December 2007 Ray Lazanik and Scott Gillespie, CGI Consulting Services (Part 2) – December 2007
2. Evidence Paper: Public Health Agencies' Influence on Planning and Policymaking for the Built Environment (2007), by J. Deby and L. Frank, School of Community and Regional Planning, University of British Columbia.

In 2008, PHAC did an early evaluation of ActNow BC and concluded that “ActNowBC is a clear illustration that intersectoral action is possible, and can be sustained over a number of years. It illustrates how different sectors can define a commonality of interest in health, how an accountable agenda for joint action is arrived at, and how a specific set of resources is invested in the collaboration.” It calls ActNowBC a “promising best practice.” (See page 5)

In 2009 the Ministry published another model core program paper called Healthy Community Environments Core Program Paper that was based on those two evidence reviews.

Section 2.4 (page 10-11) of this paper articulates the role and responsibilities of health authorities as follows:

“The role of health authorities is to identify and assess the health needs in the region, to deliver health services (excluding physician services and BC Pharmacare) to British Columbians in an efficient, appropriate, equitable and effective manner, and to monitor and evaluate the services that it provides. In the area of community environmental health, the health authorities are responsible for:

- Conducting environmental surveillance, monitoring, and health impact assessment to identify unhealthy built environments and environmental risks and to develop health promotion, risk management and risk reduction strategies to protect public health.
- Supporting the development of healthy built environments.
- Leading strategic public health partnerships with multiple sectors, including collaboration and capacity building with local government, community stakeholders and other groups to assess risks and enhance the positive health impacts of land-use plans, local bylaws, built environments and a wide range of community and industrial projects.
- Implementing health protection interventions, including public education and awareness, protective actions and enforcement of standards and legislative requirements.
- Conducting research and evaluation on programs and processes to ensure continuous quality improvement.”

The Goals and Objectives of the Healthy Community Environments Core Program were as follows:

“The overall goal of the program is to improve the health of the public by helping to create healthier built environments, and by preventing, reducing, or eliminating community environmental health hazards.” (See page 12). The specific objectives were:

- To collaborate in creating healthy built environments that supports everyone in leading healthy lives.
- To prevent, reduce or eliminate actual or potential public exposure to chemicals, metals, industrial contaminants, radiation, and environmental noise, which represent a threat to human health.
- To ensure that solid and liquid (sewage) waste is properly managed and does not present a threat to human health.
- To promote community planning and design that prevents potential environmental and social threats to health and contributes to the creation of healthy community environments.”

Between 2008 and 2009 the model core program papers were circulated from the Ministry of the Health authorities.

After the 2010 Olympic and Paralympic Winter Games, ActNow BC, a cross-government health promotion initiative, was discontinued, and its activities rolled into a broader initiative called Healthy Families BC (HFBC), which was launched in May, 2011. (In 2017 the HFBC name was dropped and the program is called Healthy Communities). Some of the programs specific to ActNow BC were discontinued at that time (e.g., the Built Environment Active Transportation or BEAT initiative) but were replaced by initiatives under the HFBC umbrella.

This provincial strategy - the most comprehensive health-promotion program in Canada - is aimed at improving the health and wellbeing of British Columbians at every stage of life. Healthy Families BC helps British Columbians to better manage their own health and reduce chronic disease by focusing on four key areas: healthy eating, healthy lifestyles, resources for parents, and fostering healthy communities.

The HFBC Policy Framework articulates a Healthy Living & Healthy Communities Goal (only 1 of 4 goals however, so in that sense it is more comprehensive than ActNow BC), that happens to contain the same three streams as ActNow BC (i.e., physical activity, healthy eating and tobacco control). On page 15 there is a paragraph within the Physical Activity stream that says “This HFPB Policy Framework directs health authorities to use a combination of strategies aimed at the individual, social-cultural, environmental and policy determinants of physical inactivity. This includes setting standards for physical activity; identifying synergies with other interventions; networking with other sectors so that healthy built environments and opportunities for physical activity can be developed; and developing resources that increase peoples’ awareness of, and tendency to choose active lifestyles in all settings.”

HBE language like “Promote public policy that supports healthy eating – implement a healthy eating/ food environment” is peppered throughout the document under different sections.

On page 27 it says “A strong working relationship between regional health authorities and local governments is critical for both partners to deliver on their mandates and priorities. The HFBC Policy

Framework will be implemented by health authorities through the collaborative mobilization of local governments across a range of activities including, but not limited to, the creation of health-promoting built environments and community environments.”

In 2013, *Promote, Protect, Prevent: Our Health Begins Here*. BC's Guiding Framework for Public Health —the 10-year directional document for the public health system, was released. The Guiding Framework reinforces core functions for public health program and service delivery in the province. The Core Functions Framework diagram outlines the core public health programs within the seven Guiding Framework goal areas that health authorities provide as they seek to improve the overall health of their populations. Goal 1 is Healthy Living & Healthy Communities and this is where Healthy Communities work lives along with Healthy Living (healthy eating, physical activity, tobacco cessation), food security and chronic disease prevention; Goal 6 is Environmental Health and this is where Healthy Community Environments work lives along with air quality, water quality, food safety and health care facilities. Note: in 2017, BC's Guiding Framework for Public Health was updated.

A HFBC Communities Evaluation Progress Report 2014-15 found that since the HFBC Communities initiative began in 2011, a wide variety of supports and resources has been created to increase local actions towards healthier communities. Also, a substantial number of partnership agreements has been developed between regional health authorities and local governments. The more familiar survey respondents were with the HFBC-C initiative, the stronger they said the relationship was between their health authority and local government. They also felt there was greater coordination of healthy community policies and actions. More than half of respondents also felt collaboration with community partners had improved.

The evidence collected within the evaluation of HFBC-C in 2016-17 suggests that the initiative contributed to achieving identified short and medium term outcomes across BC by increasing partnerships between health authorities, local governments and community partners, by enhancing the capacity of health authorities and local governments to develop healthy community actions, and by supporting the coordination of healthy community policies and programs. Gaps in partnership development and capacity have been identified, and recommendations have been made about how to enhance these aspects of the initiative – especially towards increasing the priority of healthy communities work at all levels within health authorities and local governments. Evaluators suggest that, over time, the substantial progress within these short- and medium-term outcomes may lead to the achievement of longer term goals, including improved community health.

The Healthy Communities website provides more detail about what the current initiative entails, including but not necessarily limited to the following programs: Prescription for Health; Informed Dining; Healthy Communities Program, Shopping Sense Grocery Partners; Healthy Start; and, Sodium Reduction in Health Care.

Appendix 3: Key Resources & Processes

Ministry-Led Resources and Processes

- **2005: A Framework for Core Functions in Public Health** – Released by BC's Ministry of Health, it identifies the core programs that must be provided by health authorities, and the public health strategies that can be used to implement these core programs. Between 2005 and 2009, Model Core Program Papers were generated for each of the core programs. Each health authority was required to develop performance improvement plans to articulate how they were going to align their work with the model core programs.
- **2006: ActNow BC** – This cross-government health promotion initiative was established in anticipation of the Vancouver 2010 Olympic and Paralympic Winter Games. It received a grant to support the promotion of: 1) physical activity; 2) healthy eating; and, 3) tobacco reduction. HBE activities centered on physical activity and the link to active transportation.
- **2007: Healthy Communities Core Program Paper** – It introduced the concept of healthy communities and taking a “settings” approach to this work. It included a logic model that identified the role of health authorities to: “Collaborate with local governments, school districts, key community organizations and groups in promoting healthy local governments, healthy schools and healthy work environments.”
- **2007 – 2008: Two Evidence Reviews** – 1) Healthy Community Environments; 2) Public Health Agencies' Influence on Planning and Policymaking for the Built Environment.
- **2009: Healthy Community Environments Core Program Paper** – Based on those two evidence reviews, this paper clearly states that one of the roles of health authorities is to “support the development of healthy built environments and to “lead strategic public health partnerships with multiple sectors, including collaboration and capacity building with local government, community stakeholders and other groups to assess risks and enhance the positive health impacts of land-use plans, local bylaws, built environments and a wide range of community and industrial projects.”
- **2010: ActNow BC** - Discontinued following the 2010 Olympic and Paralympic Winter Games.
- **2011: Healthy Families BC (HFBC)** - This provincial strategy is aimed at improving the health and well-being of British Columbians at every stage of life. It helps British Columbians to better manage their own health and reduce chronic disease by focusing on four key areas: healthy eating, healthy lifestyles, resources for parents, and fostering healthy communities. The HFBC Policy Framework directs health authorities to “network with other sectors so that healthy built environments and opportunities for physical activity can be developed.” The program name was changed to Healthy Communities in 2017.
- **2013: Promote, Protect, Prevent: BC's Guiding Framework for Public Health** - This 10-year directional document for the public health system reinforces core functions as the framework for public health program and service delivery in the province. Goal 1 is Healthy Living & Healthy Communities and this is where Healthy Communities work lives along with Healthy Living (healthy eating, physical activity, tobacco cessation), food security and chronic disease prevention. HFBC-C work aligns closely with this goal. Goal 6 is Environmental Health and this is where Healthy Community Environments work lives along with air quality, water quality, food safety and health care facilities. Environmental health/health protection work as well as the work of the health authority HBE teams fit under this goal. HBE work also aligns closely with the Framework's overarching principles of health promotion and prevention. This Framework was updated in 2017.

Provincial Resources & Processes

What follows next is a list of the key resources and processes that were led provincially by non-Ministry organizations such as the Provincial Health Services Authority (PHSA), BC Healthy Communities Society's PlanH program, the National Collaborating Centre for Environmental Health (NCCEH), and BCIT. Also included are several activities representing collaboration between one or more health authorities.

- **2007: Provincial HBE Forum** – Organized by PHSA, this event brought together all organizations interested in discussing and/or working on moving the HBE agenda forward in BC^g. Participants expressed a strong desire to have a mechanism for ongoing communication and joint action.
- **2007: Foundations for a Healthier Built Environment** - An introductory educational resource that links planning and health. It was created to inform discussion at the HBE Forum.
- **2008: Healthy Built Environment Alliance (HBEA)** - A voluntary alliance of organizations from a wide variety of sectors across BC (public health professions, planning and design professions, local governments and academia) which provides leadership and action for healthier, more livable communities. It was established in follow-up to the provincial HBE forum in 2007 to foster inter-sectoral networks and to provide a venue to coordinate knowledge exchange and key activities around health and the built environment in BC. PHSA provides Secretariat support and it is co-chaired by representatives from the health and planning sectors. All of the HBE resources developed by PHSA from 2008 onwards were developed under the guidance of the HBEA.
- **2008: Introduction to Land Use Planning (Planning 101)** – Developed by the PHSA, this is a comprehensive resource that introduces health professionals to planning terms and processes, and highlights opportunities for their professional involvement in land-use planning.
- **2009-2010: Workshops to Pilot “Introduction to Land Use Planning (Planning 101)”**. The pilot was held in Cranbrook; subsequent workshops were held across the province in 2010 (roughly 1-2 per health authority). In retrospect, these were far beyond where the EHOs were at that time, although some others who attended (Population Health, MHOs etc.) may have been more ready. There were varying degrees of support at this time from EDs, Directors or Managers in terms of committing EHO staff to do HBE work.
- **2009-2012: Healthy Canada by Design CLASP^h** - This initiative involved Fraser Health Authority, Vancouver Coastal Health and Vancouver Island Health Authority. Consultants helped develop, pilot and evaluate a year-long training & technical assistance program to strengthen the capacity of these Health authorities to engage in land use planning processes, and translate health knowledge into policy recommendations and actions that promote healthy built environments.
- **2010: Health 201** – A Knowledge to Action Framework for Creating Healthier Built Environments – A step-by-step guide that aims to assist planners, design professionals and local government decision-makers to take actions towards creating healthier built environments.
- **2012: Health Promotion in the Context of Health Protection Workshop** - This workshop, hosted by the National Collaborating Centre on Environmental Health (NCCEH) brought together public

g Participants included representatives from the following sectors: health (Ministry, health authority, provincial/national non-profit organizations, research); land use planning and development; transportation planning and development local government; design professions (product design, interior design, urban and community planning, architecture, landscape architecture, engineering); community (recreation, parks, community organizations); and academia.

h The Coalitions Linking Action and Science for Prevention (CLASP) project was an initiative of the Canadian Partnership Against Cancer (CPAC). While not a provincial process per se, it did involve three BC Urban Public Health Network (UPHN) Health authorities (Fraser Health Authority, Vancouver Coastal Health and Vancouver Island Health Authority). Through CLASP funding, these Health authorities were given access to a shared Planning Consultant and an Evaluation Specialist to develop, pilot and evaluate a year-long training & technical assistance program. Health authority staff provided comments on the Capital Regional District's Regional Sustainability Strategy, the City of Surrey Official Community Plan and the City of North Vancouver Official Community Plan.

health professionals from across Canada to review the range of health promotion approaches being undertaken in health protection across the country, to generate a list of barriers to incorporating health promotion into day-to-day health protection practice, and to list a variety of solutions to this challenge.

- **2012: PlanH** - Implemented by BC Healthy Communities Society, PlanH works with the health authorities, UBCM and the Ministry of Health to facilitate local government learning, partnership development and planning for healthier communities.
- **2014: Healthy Built Environment Linkages Toolkit** – Under the guidance of the HBEA, PHSA led the development of a ground-breaking evidence-based and expert-informed resource that links planning principles to health outcomes and identifies the behavioural impacts (e.g., walking and transit use) and environmental impacts (e.g., noise and traffic safety) that contribute to those health outcomes.
- **2015: Public Health Guide to Planning with Local Governments** – A resource created by the Health Authority HBE Council (HAHBEC) that is intended to be used as a starting point to provide guidance to health professionals when they are involved in reviewing local government/community planning documents.
- **2015: Introductory HBE Webinar** – PlanH collaborated with members of the HBE Alliance to create a one-hour session describing the foundations for linking health and the built environment.
- **2015: HBE Workshops Open Source Curriculum** – Created by PlanH, these HBE Workshops activate the HBE Linkages Toolkit by leading participants to think about how to apply its concepts to issues that matter to them in their community or region. Individuals can choose from three workshops that are customizable for different projects and areas of audience knowledge. The HBE workshops, curricula, agendas and slide decks are free and open source.
- **2015-2016: Provincial HBE Training** – A series of learning opportunities for health professionals on HBE was initiated by the HAHBEC, supported by all of BC's health authorities as well as the PlanH program, and funded by the Real Estate Foundation.
 - **Workshop #1 (2 days):** to increase knowledge and understanding of HBE concepts and provide inspiration for participants to take action in their communities. Participants learned more about the five physical features of a healthy built environment, municipal planning and how health professionals can play a role in creating healthier communities.
 - **Workshop #2 (3 days):** to build skill and confidence to apply knowledge and take action.
- **2016: Healthy Communities Online Course** – This six-module online course is offered through Continuing Education at BCIT (course # ENVH 4901). It illustrates the connections between the five physical features of the built environment and the incidence of acute and chronic diseases. Students study the relationship that health professionals have with local governments and their ability to affect changes to land uses and land use policies through the planning process.
- **2017: Healthy Built Environment (HBE) Framework** - This framework, created by the HAHBEC, provides resources and articulates a process to support health professionals in responding to local governments, in particular to, land use referrals.
- **2018: HBE Linkages Toolkit: making the links between design, planning and health (Version 2, May 2018).** This living document was updated to include new research on food systems, natural environments, small and medium sized communities, social wellbeing, and economic co-benefits.