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To cite this article: Pam Moore (2011): A model to embed health outcomes into land-use planning, Community Development, 42:4, 525-540

To link to this article: http://dx.doi.org/10.1080/15575330.2011.593265

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A model to embed health outcomes into land-use planning
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Research links public health outcomes to the built environment. What is not clear is how and to what degree public health agencies can partner with local governments to influence development patterns and urban design. Public health programs tend to emphasis mandated responsibilities such as air quality or waste management. Yet the most beneficial long-term outcomes of improving our built environments – reductions in the prevalence of chronic diseases and injuries, improved senior's health, healthier childhood environments – are affected more by non-mandated aspects of a public health agency’s role. British Columbia developed model core programs in public health and the recommendations in the program development resulted in a health authority creating a model for reinventing their role in land-use planning. The Health Authority developed standard approaches for land development using a public health lens based on seven dimensions. The model included developing partnerships with stakeholders – local and provincial governments, agencies and the public – to support the creation of healthier built environments. This paper discusses the initial steps to date and future plans. It includes a summation of two years of practical application of the processes and procedures developed to incorporate health as an explicit expectation of planning and development.

Keywords: capacity-building; health; public policy; Canada

Background

Research indicates that living and working conditions have the greatest influence on health. Therefore, health is as much a result of our physical health and social environment (which includes having clean drinking water, public safety, transportation, green spaces, schools, healthy work/business environments and housing) as it is a product of the health-care system and health services. (Healthy Municipalities and Communities, n.d.)

Health organizations across Canada are currently faced with escalating acute care costs associated with the increasing prevalence of chronic disease. The trend to put more money into the acute care system is no longer sustainable and alternate solutions to reduce chronic disease prevalence need development. One potential approach is to build upon the relationship between public health and civic planning.

Public health and urban planning have many areas in common, including a population-level focus and the need to deal with complex competing factors.

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Identifying and acting on areas in common becomes difficult without a developed process that identifies resources and the capacity to act on opportunities to collaborate with planners and local government.

Historically, local government planning was related to public health through disease prevention, sanitation, and slum eradication. As city centers became densely populated and disease outbreaks increased, people moved out to the suburbs and the beginnings of urban sprawl began. Public health’s role with local government shifted from disease prevention and improved sanitation to sustaining infrastructure for issues such as sewage and drinking water. In the process, consideration of the broader health impacts of the built urban form lost focus.

In recent years, there has been increased recognition that a concerted effort is required to reconnect public health and urban planning – driven in part by growing evidence that the built environment is contributing to more unhealthy choices, increased obesity and reduced levels of physical fitness. Incorporating a health perspective into land-use decisions requires creating space for the perspective that there exists an impact of land use on population health. Such a perspective must compete with an already complex process involving multiple stakeholders and divergent or overlapping interests. It also requires that urban planners develop an understanding of the health outcomes associated with the built environment, including its influence on the determinants of health.

An understanding of the Federal and Provincial healthcare system is necessary to identify barriers and opportunities at a regional level for public health staff and urban planners to develop a working relationship.

The Canadian healthcare system

The Canadian public healthcare system has a very direct role in the organization of healthcare and resource allocation of healthcare services. Canada’s healthcare system is a publicly financed system of public healthcare insurance.

The healthcare system includes the health policies – both for healthcare and other health-related public policies that have a broad scope and encompass healthcare as well as maintaining population health. Canada’s current system focuses on the effects of healthcare access and delivery and not on the determinants of health or those factors outside the healthcare sector that influence health status and population health.

The federal, provincial and territorial governments share the responsibility for healthcare. The federal government pays some of the costs of the provincial healthcare programs and outlines some of the rules for provision of health services for the provinces and territories. The provincial and territorial governments are responsible for the administration and delivery of healthcare.

In recent years, another model for healthcare has emerged. This involves the municipal government as a third level of government responsible for healthcare. All provinces have de-centralized their healthcare services to regional bodies. The creation of this model is rooted in the belief that regional healthcare will be more responsive to local health needs and will operate more effectively. The regional structures have the authorization to perform functions previously the responsibility of provincial or local governments.

In the province of British Columbia, public health programming is incorporated as a program within a larger Health Authority (HA) that provides a wide range of
health services to residents within a geographic area. The province is divided into five geographic regions each of which have a health authority. Certain provincial activities are provided through a Provincial Health Services Authority (PHSA). Policy oversight and legislative responsibilities are overseen by branches of the provincial government (Ministries), of which two relate directly to public health programming.

The HA was established in 2001 and its role was to ensure that publicly funded health services are provided for the residents. The services include clinical care and community care, which includes public health programs. These programs focus on health promotion, prevention of illness and injury, and protection of the environment, to improve the health of the community rather than just the treatment of illness and disability. This HA serves a large geographic area of approximately 215,000 square kilometers with a mixture of remote areas, rural and smaller urban communities with a total population of 735,000.

In 2005/06 the provincial Ministry of Health initiated the development of Model Core Programs in Public Health. Spurred by the need to address the recommendations included in the Model Core Programs, over the past 18 months the HA has undertaken development of a model for reinventing its role in land-use planning. The HA has developed a model for reviewing civic planning documents applying a population health lens. The approach attempts to educate local government and the public about the health outcomes influenced by the built environment, including the relationship between the built environment and the determinants of health. It identifies the key relationships that need to be developed as well as flagging current and future areas for collaboration and partnership.

In 2007 the HA created a Healthy Community Environment (HCE) position to develop a model for linking health outcomes to land use. The following discussion will describe the development of that model.

**Discussion**

**Development of the Health Authority model**

The initial phase of the HA’s HCE initiative was limited to review of development proposals over 100 housing units submitted by local governments. Planning staff responsible for the individual referrals were contacted by the HCE initiative and a preliminary review template or model used by the HCE initiative evolved from those discussions.

During this period, the PHSA was also developing training workshops for health professionals based on two documents it had developed specifically to address the need for education on health and the built environment: *Foundations for a Healthier Built Environment* (PHSA, 2008a) and *Introduction to Land Use Planning for Health Professionals* (PHSA, 2008b).

These documents were developed to provide health professionals with the basic language of community planning and assist them to recognize the opportunities that existed to become active participants in community planning processes. Such opportunities include involvement in the development of Official Community Plans (OCP) or Regional Growth Strategies (RGS) and master plans related to transportation, parks and recreation. While this was helpful for health professionals in understanding healthier built environments, a need was identified for tools that
were usable by public health staff in contributing directly to land-use planning decisions. Previous to the development of this HA model there was limited research on tools and processes used by the public health sector to create healthy community planning.

The HA staff developed standard approaches and templates for land development reviews using a public health lens based on seven dimensions of health. The dimensions are based upon those areas in which health authorities have the expertise and staff to make an informed contribution to discussions on land-use planning. The seven dimensions are as follows:

1. Environment (air, water).
2. Injury prevention.
3. Nutrition and food security.
4. Healthy child development.
5. Physical activity as affected by transportation and recreation choices.
6. Housing and social wellness.
7. Access and inclusion for those with mental illness or disabilities.

Organizing around these dimensions has reframed land-use planning issues using a public health perspective. It allows the HA to communicate the potential health impacts of land-use planning decisions and to promote and advocate for healthier built environments.

Public health professionals can provide an institutional voice whose primary focus is human health, a role not played by any of the other institutional players involved in land use decision-making. Public Health officials can consistently ask whether this (land use) will encourage or discourage healthy behaviours. This does not mean that ‘health’ will become the sole, or necessarily even the primary consideration in all decisions. But it can become a factor that is systematically considered. (Capitol Health Region, 2007)

Public Health’s mandate encompasses a broad range of activities focusing on improving the health of the population. As such, it is well positioned to represent the health sector at the land-use decision-making table. Planning support can include identification of regulatory expectations such as sewerage system setbacks, provision of parkland, or better practice approaches to healthier land-use planning. The gradient of regulatory requirement through to better management approaches can be managed in the single review process.

Central to developing a model to entrench health outcomes systematically into processes within a HA and local government was the identification of key stakeholders and the barriers and opportunities for involvement. During the identification process two competing factors emerged – the Climate Action Charter and the Public Health Act – both of which have begun to refocus the model and will be discussed in greater detail.

**Identification of key stakeholders**

**Health Authority staff**

In 2001 the province of British Columbia amalgamated into the six health authorities. Previously, public health structures were more closely aligned with local
governments and covered smaller geographic areas. The amalgamation resulted in consolidation of services. An unanticipated result of the loss of these local positions was the disruption of, in some cases, very long-term relationships between HA staff and local governments. Interaction between these groups became disjointed and government staff and the public were uncertain of “who to contact” within the HA.

Relationships are being re-established and redefined. Staff currently involved in local government relationships are unfamiliar with historical linkages, and more legislative responsibilities are resulting in staff with a regulator rather than collaborator relationship. The growing body of literature on fostering healthier built environments stresses the key necessity of building strong personal relationships between employees of the health authority and other stakeholders, particularly municipal planning staff and local elected officials. In order to nurture that relationship-building, the HA recognized that it would need to identify the key internal staff involved in planning and delivering public health programs and to clearly articulate their roles in regard to promoting healthier built environments.

An advantage of the integrated HA was a common umbrella that allowed bringing together key staff involved in environmental health, population health, family health, child and youth health, mental health and addictions, and persons with disabilities (including seniors). Each of these professionals utilizes a variety of public engagement and collaborative styles. An Environmental Health Officer’s regulatory role has an outcome evidence-based response. Population health takes an upstream approach and develops partnerships at the community level to foster change. Public Health Nurses and Home/Community Care staff work with individuals, groups, or at the community level. Mental Health and Addictions workers identify key issues, raise awareness of those issues and then identify coalitions to increase system capacity to move those issues forward. Medical Health Officers provide a system wide understanding, community leadership, and leadership amongst healthcare providers.

Once the key professionals were identified and support obtained from their program areas, the HA was able to develop a strategy for linking the disparate foci of each into a coherent model to support efforts to create healthier built environments. The key components of developing this system-wide approach are as follows.

Demonstrating the HCE initiative’s policies and templates relevance to all other programs. (Montreal Network of Health Promoting Hospitals and CSSSs, 2009). Each key health professional has varying levels of knowledge of local government and community planning structure, language and process. Initial groundwork included contacting individual staff within key programs to discuss the built environment and its links to population health outcomes. This helped broaden staff’s understanding both of their program’s mandates and how those mandates were connected to the built environment and community planning.

The HCE initiative engaged management within each key program on issues of the fundamental concepts of land-use planning, and the links between the determinants of health and a healthy built environment. The engagement also included a program description of the HCE initiative. Management of each program area was asked what its members perceived could be their involvement in supporting healthy built environments.
The goal of this component was to ensure that staff in the key program areas were familiar with:

- the concepts of a healthy built environment as it impacts population health;
- the determinants of health;
- the existing programs within the HA that were working in this subject area;
- the appropriate contacts within the HA for the public or local government to contact with questions/comments and/or requests for support regarding planning and health outcomes;
- the HCE initiative information available on the HA public website (PH website, 2009);
- how the guidelines being developed for each of the seven health dimensions (see Discussion section) might affect them in their jobs; and
- how they themselves could use their areas of expertise to actively participate in the review and development of the guidelines for the seven health dimensions.

Ensuring that the consultation process with the stakeholders is viewed as credible and legitimate. (Montreal Network of Health Promoting Hospitals and CSSSs, 2009). It was critical to secure the “buy in” of senior management within each of the key programs in order to gain their support for the involvement of their staff. Medical Health Officers were engaged in the process and helped to filter the message from the top down about the “new direction” the HA was taking in promoting a healthy built environment.

Optimizing communication and consultation activities. (Montreal Network of Health Promoting Hospitals and CSSSs, 2009). The HCE initiative was involved in three workshops with planning staff and health professionals. The format for each of these workshops included the following:

- introductory remarks by a Medical Health Officer emphasizing the importance of the built environment and its impacts on health;
- presentation of empirical evidence of the role of health and the built environment;
- a summary of planning tools and processes from the Introduction to Land Use Planning for Health Professionals (PHSA, 2008b) workshop reader;
- presentation on how the HCE initiative has been involved with local government, including an overview of the development of the template the HA now uses for land-use reviews;
- a sample review of a development proposal using the HA land review template; and
- breakout sessions in which groups rotate through various case studies, allowing them to put into practice the theories that had been presented.

Development of guidance papers, public webpages, information sheets and geographic information system tools. An important element in this program was the development of information that could be made available to the public, local government and HA staff. Background information for many of the seven dimensions included in the HA land-use review template, PowerPoint presentations and PHSA documents are now available on the HA website (PH website, 2009).
The benefits of making information widely available include that this:

- provides consistency of health messaging;
- supports HA and local government staff to inform themselves and others quickly about healthy built environment issues; and
- maintains up-to-date information in one location.

The guideline papers for the seven dimensions provide HA staff with the context within which they can understand and be actively involved in formalizing their own roles within the HCE initiative. In doing so, they help to clarify their own program’s guiding principles and core values as they relate to promoting a healthy built environment.

An example of an internal process that has developed from the HCE initiative model is active transportation initiatives. Many local governments are reviewing active transportation (cycling/walking trails, community walkability, and school walkability) as part of reducing their greenhouse gas (GHG) emissions and reducing community member’s vehicle dependency. The HCE initiative has had the most community involvement with active transportation initiatives and now has an information sheet that is available to the public/local government linking active transportation to health (HA, 2009). The process includes:

- a request by a local government to become involved in a specific active transportation initiative;
- the HA decides who will respond and with what level of involvement (attending every meeting and community event, via email, etc.); and
- completion of the HA involvement results in a detailed localized report based on what issues were identified during the consultation and linking those issues to health outcomes.

A geographic information system-based evaluation tool as part of the toolkit for land-use reviews is under development. This tool will allow staff to review information for a regional district, municipality, or neighborhood in relation to long-range planning or current planning proposals. The information could include the location of amenities, industry, socio-economic mapping, or early development instrument evaluations. This tool would give staff a more complete overview of a location when reviewing proposals.

Currently within a one-kilometer radius the following information about individual development proposals is available:

- population density;
- percentage of homes rented versus owned;
- percentage of children aged zero to four, and aged zero to nine; and
- type of road class (i.e. local road, arterial).

Discussions are underway with some of the local governments, the Public Health Agency of Canada, and the Human Early Learning Partnership (n.d.) with the early development instrument to discuss sharing of data for the following information within a one-kilometer radius:
recreation facilities and food stores;
land use, including green space and walking/biking trails;
current transit routes; and
early development instrument data at the neighborhood level.

The Regional HAs are mandated to provide local governments with health profiles for their geographical area. Within this HA, the local health area profiles provides an overview of residents in the HA and highlights key characteristics in the following areas:

- Health status – mortality, life expectancy, leading cause of death, chronic disease, and health behavior.
- Health system performance – age-standardized day rates, inpatient referral patterns.
- Health services – type of services available in the HA.

The health indicators conceptual framework developed by the Canadian Institute for Health Information reflects the principle that health is determined not only by medical care, but by individual and population level, social and economic factors. The information provided in the local health area profiles is currently of limited use to a local government to be able to affect change within their planning processes. The information, for example, does not allow a planner to identify areas or population groups where obesity rates have increased from previous reporting periods and use that information to create more green space or parks within their community or at the development level to influence recreation programming. The Information Support Services within this HA have recognized that provision of useful information linked to the built environment is invaluable to a local government. Currently discussions are underway to determine the type of health information from various data sources that can be made available to local governments and the depth of geographical scale that health information can be collected.

Local government staff

Planners, council and consultants. Literature abounds on the need for health professional and planners to collaborate and work together towards a common goal of fostering healthy built environments (PHSA, 2008b). Planners have readily identified the effects of the built environment on health, but the literature is currently lacking regarding HA initiatives resulting in improved health outcomes in the built environment, compounding challenges to facilitate change.

To date it has been difficult to determine the effect the HA’s review process has had on planners understanding the broad concepts of health and how this overlaps with land-use planning. For example, planning language typically does not encompass social, mental or physical health, while public health language does not include bricks and mortar. To date, efforts by the HCE initiative to have public health language incorporated into community planning documents have not been effective. Part of the reason for this may lie in the local government process itself. Some of the reasons for this might be as follows:

1. Planners focus on the physical pattern of communities, land-use planning policies relate to form, character and design of communities and related...
infrastructure. Inherent in these policies is the opportunity for communities to be active and maintain healthy weights but it is not explicitly stated.

(2) The relationship developed with planners and the HCE initiative is at the mid-management level. Although there have been discussions with Directors of Planning and higher level staff, the day-to-day working relationship is with mid-level planning staff. Their ability to affect change is minimal as decisions for process change are made at higher management levels in local governments. Attempts to discuss and develop a more in-depth working process with Health and Planning Departments are ongoing.

(3) The Local Government Act (LGA, 2010) governs the processes for local government and details the agencies that must be consulted for their input into an OCP or RGS. A regional HA is not explicitly identified as one of the agencies to be consulted and as a result a HA is not consistently consulted for input into long-range planning processes.

(4) The LGA-established content for an OCP includes social needs, social well-being and social development. A RGS is not as descriptive and requires a comprehensive statement that includes social objectives. “Social” is not defined within the LGA as including health outcomes and it results in local government inconsistently defining social outcomes for their communities (LGA).

(5) Many local governments hire consultants to draft specific land use policies. Typically, a local government drafts a terms of reference document outlining:

- projects goals – what will the project accomplish;
- objectives – may include specific matters to be addressed and scope of the project;
- expected results – description of the information to be included in the report; and
- proposal requirements – expectations by local government for the consultant (e.g. project schedule).

If the TOR does not explicitly include health outcomes in the goals, objectives, or results, there is no impetus for the consultant to broaden their knowledge of the interplay between health and the built environment, or to include health outcomes in their draft policies, or include HA staff in a stakeholders group.

Typically, a consultant will form a stakeholders group of interested parties, including community groups, neighborhood associations and potentially health staff. Ideally, these stakeholders groups should ensure that all commonly held opinions within the group are brought forward and become part of the policies being developed. Unfortunately, in reality the process is seldom so inclusive. Usually, broad vision statements are created and eventually refined to more specific goal statements. To date, there had been no specific inclusion of health outcomes in any of the stakeholders’ draft documents.

(6) HA staff readily distinguish regulatory from collaborative health improvement initiatives; however, local governments confuse the roles and may only perceive HA involvement in association with regulatory requirements that can be barriers to progressive built environment decisions.
Identification of competing factors. During the period of identification of stakeholders and barriers/opportunities for involvement, two competing factors or drivers for change were identified. The Climate Action Charter and the Public Health Act are new provincial legislation and their impact on creating healthy community planning is yet to be defined.

Climate Action Charter. The Climate Action Charter (BC Climate Action Charter, 2007) and Local Government (Green Communities) Legislative Amendments (Bill 27, 2008) are two of the legislative documents designed to encourage local governments to reduce GHG. The legislation establishes local governments’ land-use policies and processes that promote a compact built environment with less vehicle dependency and overall energy use. In 2007 the provincial government and local government shared their commitment to reducing GHGs by voluntarily agreeing to:

- set targets to reduce their GHGs by developing policies and actions to achieve those targets in their Official Community Plan by 31 May 2010 or Regional Growth Strategy by 31 May 2011;
- commit to becoming carbon neutral with their operation by 2012; and
- reduce their GHGs by 33% below the 2007 levels by 2020, and 80% by 2050.

To assist local government, a Community Energy and Emissions Inventory (BC Community Energy and Emissions Inventory Initiative, 2007) was completed for each municipality or regional district to provide a 2007 baseline emission inventory. It is estimated that local governments have control or influence over approximately 45% or more of these emissions. The 2007 Community Energy and Emissions Inventory Reports represent high-level estimated community energy consumption and GHG emissions from on-road transportation, buildings, solid waste and land-use change. Two of those areas targeted for GHG reductions – transportation and land use – directly affect health and are linked to the built environment.

The strategies to reduce community GHGs are an area that a HA can become actively involved. The largest community GHG emission source is the personal vehicle. To encourage residents to change their transportation choice to an alternate mode will require the efforts of many key stakeholders collectively working together to create messaging and actions to make alternate transportation modes an easier choice. Local governments working alone and creating active transportation options is only one part of a strategy for change.

An example of this is the planning department for the largest urban centre within the HA has recently stated that, based on a predicted population growth:

Reducing community greenhouse gases (GHG) is very challenging – especially when the reductions being targeted are as significant as what’s been set out by the Province. In essence, within 10 years, every resident will need to have reduced their GHG footprint by 50%. The associated infrastructure and service delivery implications are significant. It is suggested that the multiple bottom line implications be fully explored and reviewed with stakeholders, through the OCP review and the associated 20 year Servicing Plan and Financing Strategy review to be undertaken in the upcoming months. (Kelowna City Council, 2009, p. 2)

The societal shift away from vehicle dependency that will be required for this municipality to achieve its community GHG target is one of the factors that have been identified on which the HCE initiative could capitalize. From a health perspective
reducing vehicle dependency results in increasing physical activity opportunities and improving individual health outcomes. The results and benefits of reducing personal vehicle use are different from a local government (GHG reduction) and HA (prevalence of chronic disease) perspective but it does highlight how creating partnerships and working together can achieve improved health outcomes.

Local governments will probably struggle in the next 10 years to reduce their GHGs in their own operations and within the community. They will need to make hard decisions that may not be well received by their citizens. Ultimately, the effectiveness of strategies to adapt to climate change will depend on public and professional buy-in. This will require collaboration with HAs, municipalities and other agencies responsible for individual and public health. To achieve success in creating effective policies for adaptation strategies, there will need to be an even greater emphasis placed on developing inclusive planning processes. This HCE model is supporting local governments to identify and describe the multidisciplinary approaches and involvement needed to move a community towards healthier environments:

Engagement is key to moving individuals and community leaders forward in developing adaptive strategies to deal with climate change as it unfolds, because it is only when individuals in communities feel vulnerable to the impacts of climate change and understand that their community livelihood and their health may be threatened, that they will be moved to make individual changes and press their communities for adaptive strategies. (Pacific Institute for Climate Solutions, 2008)

HAs are well placed as an impartial accredited source of information to help support and collaborate with a local government to begin the process of a societal shift toward healthier behaviors. The results of this collaboration will benefit both local government and the HA by reducing GHGs and improving health outcomes. The history of tobacco control is an example of successful cross-sectoral collaboration. As different sectors (health, media, local governments, tax policies, and school programs) sequentially gave the warning signs of tobacco use and its health implications, the smoking rates have dropped significantly in areas where comprehensive policies have been implemented.

Public Health Act. In 2008 a new Public Health Act was enacted that replaced outdated legislation and began the modernization of public health. The Act expanded and redefined public health issues such as communicable disease prevention and control, health promotion and health protection, chronic disease and injury prevention. The Act redefines the term “health hazard” and introduces the term “health impediment” (Appendix 1). The significance of these definitions to identifying health outcomes within the planning and development process is yet to be determined by the HAs.

The Act also sets out a new direction for local governments by defining their role to ensure the health of the community with requirements that include:

- designation of a local government person as a health liaison to a regional health authority; and
- requirement of local government action if it becomes aware of a health hazard or health impediment (Appendix 2, (1) (2) (4)).

Processes for HA involvement have not yet been developed and are dependent upon direction from the provincial government.
The Public Health Act expands the role of the Medical Health Officer to include advising and reporting on public health issues of a much wider scope. (Appendix 3) The impact of these duties by a Medical Health Office has not been determined. The implication of the new direction for the Public Health Act will impact on a HA and local government’s relationship. This HA has determined that as a precursor to establishing a working relationship, the HA will determine what tools they can offer to a local government in the form of data collection and information exchange. It is invaluable for a local government to understand the health of their population with indicators that relate to chronic diseases linked with the built environment. Health information tied to easily understood definitions and their significance to land use is a valuable tool for a local government when developing long-range plans or at the individual development stage.

Conclusion
The HCE initiative has created land-use review templates, established internal processes for informing and mobilizing HA staff and laid out a framework for developing positive working relationships with local government’s staff and elected officials. Planners have been informed of the HCE initiative’s goals and health information has been made available to them. Progress has been made, and several local governments in the region have proactively included public health at stakeholders’ tables. The HCE initiative is currently involved with review of development proposals, OCP and RGS.

In theory, many of the recommendations made on how to undertake support for healthy built environments have been or are in the process of being implemented. However, in practice it is not evident that real change has occurred and that health outcomes have become a standard consideration when making land-use decisions.

The question then becomes:

- What else needs to be done to build the partnership between public health and local government that will ultimately result in healthy built environments?
- What could be added to the existing process to move both local governments and the HA in this direction?

What are the next steps for the Health Authority?
One of the goals of the HA is to:

- Improve the health of the population, prevent communicable and chronic disease, reduce injury and disability, and protect the public from harm caused by environmental factors. (HA, 2009/2010)

The HA is well positioned to offer its support to local governments and their goals of creating healthy and vibrant communities. As described in this paper, there are currently many health professionals that have some role to play in fostering healthy built environments.

The next steps for the HA are as follows:

- Build on the existing capacity internally to increase the knowledge base of staff on their role in fostering healthy built environments;
continue to develop guidance papers and information sheets on key health outcome concepts as they relate to the built environment;
create engagement opportunities with local government to discuss options for adaptation strategies to reduce GHGs;
work with local government to determine the type and scope of data that will help support a local government to embed health outcomes into land-use decisions;
develop an internal strategy for working with local government health liaisons;
clarify at a provincial level the connection of health hazard and health impediment to the built environment;
link with interested outside partners including community groups, researchers and other government agencies to develop working relationships;
develop meaningful working relationships with planners and other government staff to link health outcomes to land-use planning; and
work with elected officials to understand the linkages of health outcomes to the built environment.

The HCE initiative has developed standard approaches and templates for land development reviews using a public health lens and established internal processes for informing and mobilizing HA staff. Planners have been informed of the HCE initiative’s goals and health information has been made available to them. A framework has been established for developing positive working relationships with local government staff and elected officials.

Legislative changes provincially and within local governments have been identified that may impact the future working relationships of health authority staff and local governments.

The HCE initiative has recognized that both within a HA and within local governments, current processes and procedures impact the ability of embedding health outcomes into land-use decisions. The processes and procedures have been identified and can be used in the future as a reference point for further discussions with local governments.

References
Appendix 1. Definitions

“health hazard” means

(a) a condition or thing or an activity that
   (i) endanger, or is likely to endanger public health
   (ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) prescribed condition, thing or activity, including a prescribed condition, thing or activity that
   (i) is associated with injury or illness, or
   (ii) fails to meet a prescribed standard in relationship to health, injury or illness

“health impediment” means a prescribed condition, thing, or activity

(a) the cumulative effects of which, over a period of times, are likely to adversely affect public health
(b) that causes significant chronic disease or disability in the population
(c) that interferes with or is inconsistent with the goals of public health initiatives respecting the prevention of injury or illness in the population, including chronic disease or disability, or
(d) that is associated with poor health within the population

Appendix 2. Section 120: Regulations respecting local governments

120 (1) The Lieutenant Governor in Council may make regulations under this section in respect of local governments for one or more of the following purposes:

(a) to promote or protect the health of the people within the jurisdiction of the local government;
(b) to address a condition, thing or activity that could adversely affect a health promotion or health protection initiative;
(c) to enforce a memorandum of understanding or other arrangement made under this section.

(2) The Lieutenant Governor in Council may make regulations as follows:
(a) requiring or authorizing a local government to take one or more actions for the purposes of
   (i) monitoring its jurisdiction for a health hazard or health impediment, and
   (ii) responding to a health hazard or health impediment;
(b) requiring a local government to deliver a public health function, and, for this purpose, the Lieutenant Governor in Council may do the things described in section 125 (4);
(c) authorizing the minister to order a local government to modify or rescind a bylaw, or an operational or strategic plan or planning process;
(d) establishing processes to resolve disputes between local governments and health authorities in relation to matters under this Act.

(3) For the purposes of a regulation made under subsection (2) (a) or (b), the minister may enter into a memorandum of understanding or other arrangement with a local government establishing alternatives to the obligations that would otherwise be applicable under the regulation.

(4) If, by a regulation or order under this Act, the Lieutenant Governor in Council
   (a) imposes a duty on one or more local governments, or
   (b) authorizes the minister to order one or more local governments to modify or rescind a bylaw, or an operational or strategic plan or planning process, the minister must consult with the affected local governments before the regulation or order is made.

(5) If a regulation or order to which subsection (4) applies affects local governments generally, consultation with the Union of British Columbia Municipalities is effective consultation in respect of municipalities and regional districts.

(6) For the purposes of subsection (4), the minister must
   (a) provide sufficient information respecting the proposed regulation or order, and
   (b) allow sufficient time before the proposed regulation or order is made for the affected local governments or the Union of British Columbia Municipalities, as applicable, to consider the proposed regulation or order and provide comments to the minister.

(7) The minister must consider any comments provided under subsection (6) and, if requested by an affected local government or, if applicable, the Union of British Columbia Municipalities must respond to those comments.

(8) The minister may require an individual to make an oath or affirmation of confidentiality before the individual may participate in consultations under this section.

(9) Nothing in this section prevents a person who has authority to make an order under this Act to make the order in respect of a local government.

Appendix 3. Section 73: Advising and reporting on local public health issues

73  (1) In this section:
   “authority” means a health authority, or a school board or francophone school board under the School Act, that has full or partial jurisdiction over a designated area;
   “designated area” means the geographic area for which a medical health officer has been designated;
   “local government” means a local government that has full or partial jurisdiction over a designated area.

(2) A medical health officer must monitor the health of the population in the designated area and, for this purpose, may conduct an inspection under Division 1 [Inspections] of Part 4.
(3) A medical health officer must advise, in an independent manner, authorities and local governments within the designated area
(a) on public health issues, including health promotion and health protection,
(b) on bylaws, policies and practices respecting those issues, and
(c) on any matter arising from the exercise of the medical health officer’s powers or performance of his or her duties under this or any other enactment.

(4) If a medical health officer believes it would be in the public interest to make a report to the public on a matter described in subsection (2) or (3), the medical health officer must
(a) consult with the provincial health officer and each authority and local government who may reasonably be affected by the intended report, and
(b) after consultation under paragraph (a), make the report to the extent and in the manner that the medical health officer believes will best serve the public interest.

(5) If requested by the provincial health officer, a medical health officer must make a report to the provincial health officer of advice provided under subsection (3).

(6) A health authority must do all of the following:
(a) designate a medical health officer to report, respecting the geographic area for which the health authority is responsible,
   (i) on the health of the population within the geographic area, and
   (ii) on the extent to which population health targets established by the government, if applicable, or by the health authority, if any, have been achieved;
(b) require the medical health officer to report to the health authority at least once each year; publish each report made under this subsection.

(7) A medical health officer who makes a report under subsection (6) may include in the report recommendations relevant to health promotion and health protection in the geographic area for which the health authority is responsible.