# BC Healthy Communities
## People. Place. Potential.

**June 2011**

## BUILDING HEALTHY COMMUNITIES AT THE INTERSECTION OFCHRONIC DISEASE PREVENTION AND CLIMATE CHANGE



By
Kerri Klein &
Stacy Barter

BC Healthy Communities

# TABLE OF CONTENTS

# BUILDING HEALTHY COMMUNITIES AT THE INTERSECTION OF CHRONIC DISEASE PREVENTION AND CLIMATE CHANGE

## Executive Summary

Canadian communities are at a place in time where they must respond to multiple complex issues including chronic disease and climate change.  Action taken in the next decade promises to be crucial in terms of the health of our collective future.   The type of action that is required to address chronic disease and climate change requires attention to personal, social and systemic change.  Both of these issues are heavily influenced by public policy, personal behaviour, social values and structural factors.  Both require particular attention to social inequities.  Both require capacities that result in resilient, engaged and inclusive communities.  And both require leadership, commitment and collaboration from multiple sectors.

This research project is based on a growing interest from multiple sectors on how health, equity and climate change can be addressed in a more integrated way.   We discovered six emerging areas where there is significant potential for integrated approaches to be supported:

1) Research on health impacts of climate change;

2) Greening operations within the health sector;

3) Individual behaviour change for healthy, sustainable living;

4) Health and the built environment;

5) Health equity and environmental justice;

6) A settings based approach to health and climate change; and

7) Capacity building for influencing systemic change.

Based on these findings, we have made recommendations for four strategic directions in which the Healthy Communities networks in Canada may choose to focus in order to support integrated approaches for health, equity and climate change:

I. Draw on the pillars of the Healthy Communities framework to articulate a capacity building approach that explicitly integrates action on health, equity and climate change;

II. Focus on capacity building for collaborative action;

III. Support capacity building that develops the knowledge, skills, and thinking required to effectively deal with complex issues and systemic change; and

IV. Building on the Healthy Communities' pillars of Political Commitment and Healthy Public Policy, work with policy makers to support greater integration of health and climate change in policy, planning and practice.

## Introduction

Across the globe there is increased acknowledgement that public health and the health of the planet are closely interrelated.  Indeed, the links between health and sustainability are well recognized both generally and specifically in relation to natural and built environments (Poland & Dooris, 2010).   One of the key qualities of any healthy community/city is respect for the natural environment and the health of the ecosystems of which it is part (Hancock, 1993). While the interconnections between health and sustainability are increasingly being documented in the public health literature, **all too often there are missed opportunities to explicitly integrate human health and environmental outcomes**.  According to Poland and Dooris (2010) **"**work on sustainability and work on health have tended to happen in parallel rather than as integrated efforts."

In Canada, two critical areas have catalyzed the potential for urgent and integrated action on human and environmental health:  chronic disease and climate change.

Climate Change
According to the World Health Organization, climate change is one of the most serious public health issues of our time (Baum, 2009).   Direct and indirect health, economic and social impacts of climate change are predicted to be substantial and hit the most marginalized and vulnerable populations the hardest (Agyeman & Evans, 2004).  No longer just an issue for climate experts and scientists, communities across Canada are necessarily responding with a surge of planning and innovation at multiple scales.  Taking climate science seriously implies significant transformations of the built environment, transportation habits, energy sources, food sources and local economic development within one generation.  And, while reducing greenhouse gas (GHG) emissions requires infrastructure and policy change, it also requires equal attention to behaviour change and public engagement towards a lower carbon future.  In British Columbia (BC) alone, legislation now requires local governments to develop community-wide greenhouse gas reduction plans as well as carbon neutral public sector organizations, including health authorities.[1] Put simply, action on climate change will significantly influence how communities develop into the foreseeable future.

Chronic Disease
Climate change is not occurring within a vacuum and the response capacity for climate action is closely linked with the ability to address other salient issues of concern such as chronic disease.  In Canada today, more than nine million people suffer from some form of chronic disease  with the potential for this number to increase as populations age (HCC, 2007). More than ever before researchers, practitioners and policy makers are looking at the rising rates of cancer, diabetes, and cardiovascular disease and calling for approaches that focus on chronic disease prevention.  With attention on multiple determinants of health, there are strong interconnections between health and lifestyle, income, equity, the built environment and social engagement, to name a few.  Thus, health is not only the business of health practitioners, but increasingly requires the engagement of planners, local governments, economic developers, and community organizations.   From a healthy communities perspective, addressing chronic disease requires a 'joined-up' approach that can account for and address multiple determinants of health more effectively.

---

[1] Information about the BC Climate Action Charter and the Carbon Neutral Public Sector can be found at www.livesmartbc.ca/government/**neutral**.html

Action taken in the next decade promises to be crucial in terms of the health of our collective future. The type of action that is required to address chronic disease and climate change requires attention to personal, social and systemic change.  Both of these issues are heavily influenced by public policy, personal behaviour, social values and structural factors.  Both require particular attention to social inequities.  Both require capacities that result in resilient, engaged and inclusive communities.  And both require leadership, commitment and collaboration from multiple sectors.  Ostry et. al (2008) suggest that "given the complex way in which climate change will act in concert with other socio-economic and environmental factors it is best to approach the study of climate change and health using a social determinants of health framework".

While the Healthy Communities approach has always recognized healthy environments and ecosystems as important determinants of health, **there is a need to examine the emerging opportunity and potential value of encouraging joined-up thinking and integrated action between health and climate change responses, specifically at the local level**.   We already know that there are natural co-benefits for public health from climate change mitigation and adaptation, especially in relation to key issues such as transportation, food and air quality.  However, much less work has been done to look for shared solutions, approaches and practices to collectively address difficult social policy problems inherent in chronic disease and climate change.  While health-oriented programs may include an environmental component and climate change programs may contain a healthy living component, **the kind of hoped-for synergistic collaboration between sectors of health and environmental sustainability have yet to be realized** (Poland & Dooris, 2010).

While there are many groups working on the links of health and the built environment[2] and the health impacts of a changing climate, there is less of an explicit focus on building capacities for shared practices, policy and planning that can address health and climate change in an integrated way.  This research explored current strengths, challenges and opportunities for the integration of action on health and climate change.  In particular, we discuss what role a Healthy Communities approach could play in supporting future learning and development in this area.

## Research Methodology

This research project is a small component of a larger national project called "Healthy Communities: A Framework for Action on Health Determinants in Canada" that involves Québec Network of Healthy Cities and Towns, and  the Ontario, British Columbia and New Brunswick Healthy Communities networks.  The goal of this national project is to work together to document how a "healthy communities" approach can be an effective tool for the prevention of chronic disease when applied upstream of health determinants and in health promotion policy development.

Building on the work that BC Healthy Communities has done on climate change, this smaller research project asked:
*How can we increase health outcomes while decreasing greenhouse gas emissions?  What processes, capacities and approaches can achieve mutually beneficial goals in addressing chronic disease prevention and climate change?*

---

[2] The built environment generally includes aspects of community design such as land use, transportation infrastructure (i.e. roads, bike lanes), recreation facilities, parks, housing and building codes.

A literature review was conducted from the fields of public health, population health, sustainable development, environmental justice, climate change, and capacity building approaches. A series of key informant interviews were also conducted with representatives from provincial ministries, health authorities, academic institutions, local governments and health practitioners (*see Appendix B for list of interviewees*).

## Key Findings

This research found a number of emerging areas where health and climate change may be addressed in an integrated way: i) research on health impacts of climate change; ii) greening operations within the health sector; iii) individual behaviour change for healthy, sustainable living; iv) health and the built environment; v) health equity and environmental justice; vi) a settings based approach and vii) capacity building for influencing systemic change.

Each of these areas had strengths, challenges and opportunities to enhance effectiveness for integrated approaches between health and climate change. The following section will present an overview of each theme. Opportunities and recommendations for Healthy Communities will be discussed in the following section.

**1) Research on Health Impacts of Climate Change**

There is significant research on the direct and indirect health impacts of climate change, especially at a global level (Baum, 2009; Ostry et al, 2008). At a federal level, Health Canada has a climate change and health office that aims to increase understanding of health effects of climate change and support the health sector to learn how to adapt to these health effects. At a provincial level, the Pacific Institute for Climate Solutions in BC is interested in continued support for research on climate change and health (Ostry, et al. 2008). Generally, health effects of climate change are discussed in terms of direct effects of health and indirect effects that impact determinants of health:

| Direct Health Effects of Climate Change | Indirect Health Effect of Climate Change |
|---|---|
| <ul><li>Increase in temperature related deaths and illnesses;</li><li>Chronic and acute respiratory diseases from increase fires;</li><li>Ultra-violet related cancers and cataracts;</li><li>Intoxication of food and water from severe weather events;</li><li>Increase in vector borne illnesses;</li><li>Mental health effects from increase stress, disaster response, displacement.</li></ul> | <ul><li>Water availability & quality;</li><li>Increase in fires & floods</li><li>Increase in disease patterns in ecosystems (i.e. mountain pine beetle)</li><li>Destabilization of communities;</li><li>Severe social and economic impact on rural, remote, forestry dependent communities, Aboriginal communities and northern communities.</li><li>Changes in employment and working conditions</li></ul> |

Source: Ostry, et al., 2008; Health Canada, 2011

Climate change has the potential to exacerbate many chronic disease conditions directly (i.e. respiratory diseases and cancer) while also putting more stress on the social, economic and institutional systems that influence many determinants of health. Clearly, continued research on health effects of climate change is critical and needed as there are strong interconnections between

climate change adaptation planning and health planning at many levels.   There are also other challenges we found regarding how research is being translated into knowledge on the ground:

- Information on health and climate change is not presented in an integrated way that clearly makes the links for planners, policy-makers and health practitioners.
- There is a lack of learning opportunities both within and between health sectors and other sectors addressing climate change such as planners, environmental organizations and all levels of government.

## 2) Greening Operations within the Health Sector

In many jurisdictions across Canada the health sector has begun to reduce their environmental impact by greening their own operations.  These efforts are motivated by the 'push' of new climate change legislation (as in the case of Carbon Neutral Public Sector in BC) and the 'pull' of saved costs from increased efficiency.   The health sector—by virtue of its scale, assets, purchasing power and institutional practices—has a considerable carbon footprint and offers significant potential to leverage reductions (Poland & Dooris, 2010).

Reducing greenhouse gas emissions within internal operations is an important way that the health sector can begin take leadership on climate change internally.  This type of environmental leadership often includes energy conservation in buildings and hospitals, leading green building standards for new buildings, and integrating sustainable transportation infrastructure and sustainable food procurement.  There also is an emergence of "green team" type activities for staff to encourage lower carbon behaviours in the workplace.  In the case of Vancouver Health Authority, for example, they have a full time manager of energy and environmental sustainability for health authority facilities.

It is encouraging to see environmental leadership being developed to take action within the health sector.  These types of internal policies, standards and systems make practical sense and are becoming the norm for corporate and public operations.  *However, few initiatives have gone beyond facilities management to integrate the values of environmental sustainability and the goals of emission reductions into health promotion strategies.*  This is a missed opportunity. Other identified challenges and opportunities include:

- Discussion on sustainability and reducing GHG emissions need to reach senior staff within health authorities, not only remain in facilities management.
- Learning opportunities for greening activities:  how can learning be deepened to make greater connections with their work?

## 3) Individual Behaviour Change for Healthy, Sustainable Living

Many of the low carbon behaviours that are being promoted in climate change mitigation strategies are also healthy behaviours promoted in chronic disease prevention.   For example, encouraging active transportation (i.e. walking, biking), recreating outdoors in green spaces, and increasing healthy, local eating choices all have co-benefits for achieving health and climate change outcomes.  These co-benefits are easily realized and can be said to be 'low hanging fruit' in terms of opportunities for integrated approaches.  Furthermore, Maibach et. al (2008) state that:

*"Many of the underlying behavioral and economic factors that make chronic diseases so challenging to control in the modern era appear to have direct relevance to climate change control.  For example:*
- o *People have a strong innate tendency to value immediate benefits more than future benefits*
- o *People have a tendency to consume resources in proportion to how available and affordable the resources are (calories and fossil fuels)*
- o *People have a tendency to conserve physical effort expenditure."*

There are some distinct opportunities for greater integration in population interventions targeting low carbon and/or healthy behaviours:

- *Integrated public communications on health and climate change:*  To date, climate change has largely been framed and understood as an "environmental" issue without highlighting the human and cultural dimensions of the issue which clearly link to health.  Where there is significant overlap in behaviours targeted, it is critical that the public is not confused by conflicting or fuzzy messages between health and climate change.  Especially when targeting specific populations (i.e. youth, seniors, ethnic populations, etc.), how can climate change and health messaging achieve greater clarity and impact by working together?

- *Sharing best practices for influencing behaviour change:*  In local climate change strategies there is a growing focus on targeting individual behaviour change, particularly regarding transportation choices.[3]  Dominant approaches for influencing behaviour change largely rely on information-based campaigns and social marketing strategies.  For decades the public health community has been learning about the limitations of this "information deficit" view of behaviours and instead has focused on more on asset-based and settings-based approaches that address population behaviours.   There are significant opportunities for knowledge mobilisation, mutual learning and sharing of best practices for behaviour change between population health practitioners and those leading climate change mitigation programs.

**4) Health and the Built Environment**
A significant amount of work has been done in recent years to bring together city planners, local governments, and public health staff to look at health impacts of community design, community plans, regional growth strategies and development proposals.  This work is often referred to as *health and the built environment* (Barr, 2010).   To date, most of the work on health and the built environment has focused on urban design that promotes active transportation, physical activity, increased access to healthy choices, improved air and water quality and connecting neighbours to each other (Miro and Siu, 2009).  It also points to some of the undesirable health effects of urban sprawl such as social isolation, long commutes and limited for exercise through day-to-day activities. The emphasis of health and the built environment tends to be on achieving health outcomes via changes in urban design such as land use, recreation, transportation and building codes (Barr, 2010).

---

[3] In BC, 45% of per capita emissions come from transportation.  Consequently, many municipalities are setting ambitious targets at reducing emissions from transportation by encouraging cycling, walking, transit and car-pooling.

Clearly, there are many opportunities to intentionally integrate health and climate change strategies into planning for the built environment. However, it does not appear that climate change has been an explicit point of collaboration between local governments, planners and health professionals. Some reasons this may be the case include:

- Local governments are overwhelmed by all of the sustainability issues on their plate. Often, they need to focus on the 'bricks and mortar' performance measures for meeting sustainability goals. Increasingly, these performance measures include reductions in GHG emissions. *It would be strategic to explicitly demonstrate how built environment strategies achieve health outcomes <u>and </u>reduce GHG emissions*.

- There is a need for a greater evidence base on health impacts of the built environment, healthy (low carbon) behaviours and health impacts of a changing climate. While planners understand the links between health and planning, they need quantitative data to justify the investment in health outcomes. They need to see the business case for integrating health and climate change.

- In many cases, there seems to be structural issues with the capacity of health authority staff being able to participate in planning processes. For example, if there is a demand to bring health expertise to the table, would health authorities have staff to support this? Do they see this as a relevant part of their role and their work?

- Overall, there is a lack of capacity for collaborative planning and action across sectors. For example, some local governments have started consulting the health sector and other sectors as part of their planning processes, but do not have the capacity or support to engage in ongoing collaborative relationships for joint action. This is "new territory" for many sectors and goes against the traditional silo-ed approach of many organizations and sectors.

Another critical opportunity for health and the built environment work is to expand the discussion to include the social, political, economic and historic processes that strongly influence how, why and for whom poor health develops (Barr, 2010). Similarly, there is a strong call for action around climate change to broaden the discussion beyond technical change in the built environment to include the underlying socio-economic development path of a given society and community (Burch & Robinson, 2007; CCPA, 2010). **Discussing health and climate change within the context of broader social policy change has the potential for much further reaching and longer term shared agendas to emerge**.

**5) Health Equity and Environmental Justice**
Over the last ten years there has been a rapid increase in research on health inequities from the local to global level. Barr (2010) states that "those that are disadvantaged in some way– the unemployed and working poor, children and families living in poverty, Aboriginal people, new immigrants, people with mental illness, and others – experience significantly worse health than the average British Columbia." The evidence also shows that the lower a person is on the socio-economic hierarchy, the greater their risk for developing chronic diseases.

At the same time, there is growing interest and research in how equity intersects with responses to climate change. This movement for climate justice examines the social and economic implications of our collective effort to reduce GHGs and adapt to climate change. It acknowledges that meeting our climate change obligations will involve significant economic, social and industrial transitions that will have disproportionate impacts on already vulnerable populations. Most importantly, climate justice supports climate change policy strategies that build in principles of social justice, with a focus on the needs of vulnerable populations, as well as improved well-being of communities more broadly (CCPA, 2010).

**There are significant opportunities for approaches that integrate the areas of equity, chronic disease prevention and climate change.** At a global level, it is commonplace to discuss climate change responses within the context of health impacts, development, and equity. However, in Canada, we have yet to seriously investigate opportunities for responding to climate change in ways that actually reduce health inequities. Throughout the research of this project, it became apparent that while more links are being made between health and the built environment, **equity** is not often part of the discussions.

Practically, there are a number of areas that climate change, health and equity intersect:
- Impacts of climate change will be most significant in vulnerable communities such as those already being affected by the mountain pine beetle, northern and remote communities and resource based communities.
- People living in poverty will be relatively more impacted by rising costs of heat, electricity, fuel and food.
- Changes in the built environment that improve the walk-ability of communities, active transportation options, and/or the efficiency of public transit, could have relatively greater benefits for individuals who live on low incomes (PHLP).
- The development of the 'green economy' has the potential to intentionally target opportunities for those that are already economically vulnerable. For example, the US based organization 'Green for All' has based their programming on developing *"an inclusive green economy strong enough to life people out of poverty."[4]*

**6) Settings-Based Approach to address Health and Climate Change**
According to the World Health Organization (1998), a setting can be defined as "the place or social context in which people engage in daily activities in which environmental, organizational and personal factors interact to affect health and well-being." Central to the *Healthy Communities approach[5]* is the commitment to work at the local level where many determinants of health and sustainability intersect with individual and community life. Working at this level allows one to design strategies that build on unique culture, history, knowledge, assets, and challenges of a particular community. Moreover, a settings-based approach works simultaneously on the setting and the people in the setting by inviting engaged participation of citizens and key stakeholders.

Currently, all levels of government are grappling with the challenge of social mobilization, public engagement and personal behaviour change around climate change goals. Many of the approaches to date have focused on 'greening settings' via technical improvements in the built environment and

---

[4] www.greenforall.org
[5] See Appendix A

broad awareness raising campaigns.  Moreover, community greening projects have tended to happen in parallel, rather than in integration with health promotion projects in same settings (Poland & Dooris, 2010).

While 'greening settings' is critical to a less carbon-intensive future, local governments will also need to adopt strategies that can support the complex 'people change' side of climate change strategies.  Beyond simple behaviour changes (i.e. changing light bulbs) communities will increasingly need to make more profound changes in how they conceptualize, organize and plan their future.  For example, to meet the current BC targets for GHG reductions (80% reduction from 2007 levels by 2050), significant individual and collective capacities will need to be developed locally to facilitate personal, social and structural change.   One of the biggest capacity gaps right now is the lack of public understanding and engagement in how climate change policy will impact our lives now and in the future.  Without concerted efforts to build this understanding and engagement, it is unlikely that citizens will be willing to support the type strong public policy that the climate science is calling for (CCPA, 2010).

Decades of health promotion and community development work tell us that this type of capacity building is not best served by linear models that can be copied and replicated across communities.  Rather, a settings-based approach that draws on best practices of asset-based community development, appreciative inquiry and community empowerment has something distinctive and timely to offer those that are looking to more effectively enhance efforts to integrate health, sustainability and place.

**7) Capacity Building for Influencing Systemic Change**
Climate change and chronic disease are two of the most complex issues we face today.  Both of these issues are inextricably linked to historical, social, cultural, political and economic trends that have shaped the society we live in.  As GHG emissions and rates of chronic disease continue to increase, we know that is not enough to 'prune the problems' by only addressing risk factors and adapting to rising temperatures.  We must also build capacities to 'strike at the root' and begin to address systemic issues that continue to perpetuate inequities and ecological degradation.

Connecting the dots between health and climate change within a system requires different capacities than changing the system itself.  Ultimately, there is a need to support the development of key capacities to influence systemic change:

- **'Whole systems' perspective:**  Collaboration between multiple sectors requires a move away from a reductionist focus on single issues and linear causality.  We must develop a comfort with complexity and the ability to draw out interconnections and synergies between different components.  We must be able to 'connect the dots', but also make sense of the patterns that emerge.

- **Holistic vision:** We must be able to imagine integrated visions of the future that include a wider spectrum of possible conditions for healthy people, healthy communities and healthy environments.  Our future visions must acknowledge that public health is both a pre-condition and an outcome of sustainability (PHAC, 2010). We must also be able to 'think outside the box'

to consider future scenarios that represent different development paths than we have traditionally experienced.

- **Multi-sector collaboration:** There is a need to identify how different sectors might already be supporting integrated strategies for addressing climate change and increasing health outcomes.  As planning moves ahead, we need to develop capacities to identify the knowledge and assets each sector brings to the table and how mutually beneficial outcomes for health, equity and climate change can be achieved.  Equally as important, we will need to support learning across disciplines, development of new relationships and shared commitment towards a common agenda.

- **Deepened socio-political analysis:**  We must develop capacity to have multi-sector dialogue about the practices and policies that create and sustain inequity and environmental degradation.  Inherent in this discussion is a broader context of shared social values, power, governance and public participation in decisions that impact our lives.  Ideally, we will also have the capacity to facilitate this dialogue with communities to include their lived experiences and perspectives in policy analysis.

- **Transformational Leadership**:  There is increasing evidence that unique leadership capacities are required to influence change on complex issues.[6] Transformational leadership is a leadership approach that is able to catalyze change in individuals, organizations and systems.  These type of leadership capacities not only focus on solving problems and maintaining the stability of a system, but also focus on tapping into the potential of the system or what the system can become.  We need to develop champions within multiple sectors who hold these types of leadership capacities.

## Recommendations for Healthy Communities

The Healthy Communities movement, with an explicit focus on capacity building in community settings, is well positioned to facilitate the development of integrated strategies for addressing chronic disease and climate change.  This research suggests 4 strategic directions for Healthy Communities networks to focus on:

**1) Draw on the pillars of the Healthy Communities framework (Appendix A) to articulate a capacity building approach that explicitly integrates action on health, equity and climate change.**
Specifically,
- Show how community and  citizen engagement play a critical role in building the trust, relationships, personal agency and social capital  that are important for achieving mutually beneficial outcomes for health and environmental sustainability.
- Demonstrate how asset-based approaches to community development can build foundations for more effective leadership, community commitment and action over the long term.
- Use the multiple determinants of health as a starting place to develop a shared agenda for equity, chronic disease prevention and climate change.

---

[6] W.K. Kellogg Foundation. 2004. *Building Leadership Capacity for the 21st Century.* Report from the Global Leadership Scans. http://www.wkkf.org

- Show how health and sustainability intersect in individual, organizational, and community-based settings.

**2) Focus on capacity building for collaborative action.**
Overall, there is a lack of capacity for collaborative planning and action across sectors. For example, some local governments have started consulting the health sector and other sectors as part of their official community planning processes, but do not have the capacity or support to engage in ongoing collaborative relationships for joint action. This research has indicated that in addition to understanding the links between health and climate change, there is a need to focus on *how* to collaborate in a meaningful way.  It is unlikely that effective cross-sector action will happen without attention to thoughtful process, translation of disciplinary knowledge and a compelling agenda with shared goals.  The Healthy Communities network is well placed to play the role of convenor and facilitator for this collaborative work to begin.

As a starting place, there is a need to identify assets, knowledge and relationships that exist with communities from multiple sectors including health authorities, local governments, regional districts, school districts, universities and colleges, community economic developers, food security groups, community based organizations, and environmental organizations.

**3) Support capacity building that develops the knowledge, skills, and thinking required to effectively deal with complex issues and systemic change.**
This research has shown that there is a need to deepen the learning and training opportunities from basic planning and information sharing workshops (i.e. health planning 101) towards more nuanced approaches to influencing change on complex issues such as chronic disease and climate change. There is a 'hunger' for opportunities to learn how to more skilfully address root causes, develop systems thinking and work across sectors and disciplines.  It would be worthwhile for Healthy Communities networks to consider how they can work together on developing curriculum or potentially a community of practice on integrated approaches to health and climate change.

**4) Building on the Healthy Communities' pillars of Political Commitment and Healthy Public Policy, work with policy makers to support greater integration of health and climate change in policy, planning and practice.**

Across Canada provinces, regional districts and municipalities are amending policies and plans to reflect their commitments and strategies towards climate change mitigation and adaptation.  The commitments being made today have enormous implications for how economies and communities will develop in the future.  From a narrow perspective this transition is about moving towards a less carbon-intensive future.  However, a broader perspective sees the emergence of a post-carbon society as perhaps the most important health promotion project of modern human history (Poland & Dooris, 2010).This is also a timely opportunity to make this a transition towards a future that intentionally increases quality life, ecological sustainability and human health.  Currently there is a window of opportunity to expand the discussion on climate change policy to explicitly integrate a lens of health and equity.  Some specific recommendations are to:

- Partner with academic institutions for community-university research on policy development that integrates health, equity and climate change.  Finding case studies of such policies would be useful.

- Articulate a health-based climate change strategy that improves health outcomes *and* reduces greenhouse gas emissions.

## Potential Workshops and Learning Opportunities

One of the key strengths of the Healthy Communities network is its focus on capacity building and learning. In order to build capacity for a more integrated approach on health and climate change, there is a wide range of learning which could be supported by the network. Some examples include:

1. Convening learning events ( workshops, webinars, etc) which bring together government, health sector representatives, climate change advocates, planners and other stakeholders to engage in joint learning around the links between health, equity and climate change, and identify needs and next steps to support a more integrated approach to health & climate change across sectors.

2. Facilitating collaborative processes to support local governments, health authorities and others to plan and take action together to achieve mutual goals.

3. Facilitating learning sessions for policy makers to support policy development around the links between health, equity and climate change

4. Designing and facilitating sustainability leadership development education which supports the development of change-making capacities focused on systems thinking and addressing root causes of complex issues such as climate change and chronic disease prevention.
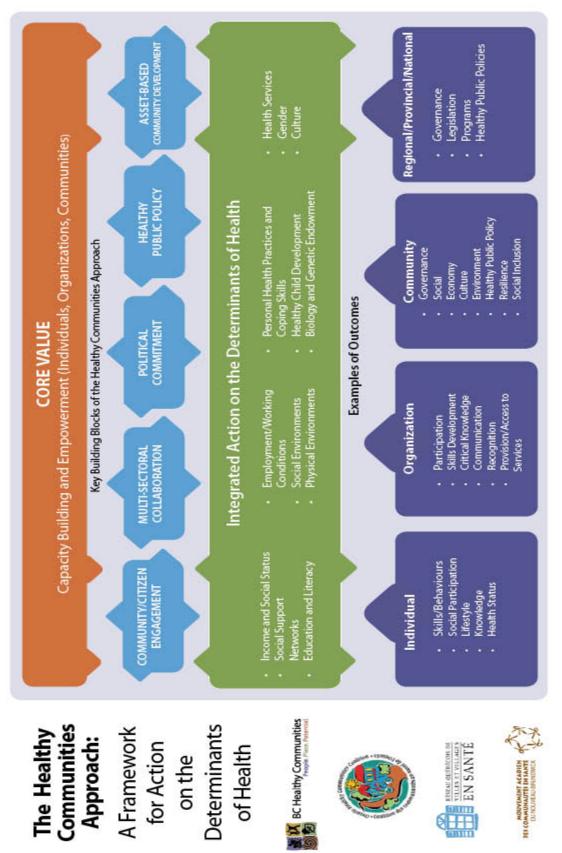
## Conclusion:

In times of change and transition there are windows of opportunity for learning, innovation and developing new ways of thinking and doing. This project sought to identify some of these important opportunities by examining how interconnected issues related to health, equity and climate change can be addressed in a more integrated way. We identify six emerging areas where there is significant potential for integrated approaches to be supported, and based on these findings, suggest recommendations for four strategic directions in which the Healthy Communities networks in Canada are well positioned to play a leadership role in this work. Given the implications of the issues at hand, there is a great deal to be done and we cannot afford to be addressing complex issues as isolated events. With the significant work being done to address climate change, it is important to ensure that climate change strategies are enabling strategies for other quality of life goals. Now more than ever, we need to ask what types of approaches, capacities can support a transition to a healthier, more equitable and sustainable future.

# Reference List

Agyeman, J., & Evans, B. (2004). Just sustainability': The emerging discourse of environmental justice in Britain? *The Geographical Journal, 170*(2), 155-164.

Ashe, M., & Salsburg, R. (2011). *An action plan for public health: Initial recommendations for involving public health in climate change policy.* Oakland, CA: Public Health Law & Policy.

Barr, V. (2010). Building Healthy and Equitable Communities in British Columbia: A Review of the Literature. Unpublished paper.

Baum, F. (2009). Envisioning a healthy and sustainable future: essential to closing the gap in a generation. *Global Health Promotion, 16(1), 72-80.*

Bizikova, L., Robinson, J. & Cohen, S. (2007). Linking Climate Change and Sustainable Development at the Local Level. Climate Policy (7) 271–277.

Burch, S., & Robinson, J. (2007). A framework for explaining the links between capacity and action in response to global climate change. *Climate Policy (Earthscan), 7*(4), 304-316.

Canadian Centre for Policy Alternatives (2010). Searching for the good life in carbon neutral BC: meeting BC's greenhouse gas reduction targets with fairness and equity. Retrieved from *www.policyalternatives.ca/bc/searching-good-life-carbon-neutral-bc*

Canadian Institute for Health Information. (2006). Urban Physical Environments and Health Inequalities.

Cohen, S., Rothman, D., Demeritt, D., & Robinson, J. (1998). Climate change and sustainable development: Towards dialogue. *Global Environmental Change Part A: Human & Policy Dimensions, 8*(4), 341.

Frumkin, H., Hess, J., Luber, G., Malilay, J., & McGeehin, M. (2008). Climate change: The public health response. *American Journal of Public Health, 98*(3), 435-445.

Hancock, T. (1993). Evolution, impact, and significance of the healthy cities/communities movement, *Journal of Public Health Policy, Spring,* 5-18.

Hancock, T. (2009). Act Locally: Community Based Population Health Promotion. A report to the Senate Sub-Committee on Population Health.

Health Council of Canada. (2007). *Schémas de population- Maladies chroniques au Canada: Supplément de données à Importance du renouvellement des soins de santé: à l'écoute des canadiens atteints de maladies chroniques.* Toronto: Retrieved from www.conseilcanadiendelasante.ca

Health Canada (2011). Climate change and health. Retrieved from http://www.hc-sc.gc.ca/ewh semt/climat/index-eng.php

Lundy, T. (2009). Communities that Can. Growing Health and Well-Being in People, Place and Planet: Integral Approaches to Leading Change. (In Press)

Maibach, E. W., Chadwick, A., McBride, D., Chuk, M., Ebi, K. L., & Balbus, J. (2008). Climate change and local public health in the united states: Preparedness, programs and perceptions of local public health department directors. *Plos One, 3*(7), e2838-e2838.

Maibach, E. W., Roser-Renouf, C., & Leiserowitz, A. (2008). Communication and marketing as climate change-intervention assets a public health perspective. *American Journal of Preventive Medicine, 35*(5), 488-500.

 Maibach *et al. (2010). Reframing Climate Change as a Public Health Issue. BMC Public Health* 2010, 10:299 http://www.biomedcentral.com/1471-2458/10/299

Maibach et al. (2011).Conveying the Human Implications of Climate Change: A Climate Change Primer for Public Health Professionals. George Mason University Center for Climate Change Communication

Miro, A., & Siu, J. (2009). *Creating Healthy Communities: Tools and Actions to Foster Environments for Healthy Living.* Vancouver: Smart Growth BC. On-line: http://www.smartgrowth.bc.ca/Portals/0/Downloads/CreatingHealthyCommunitiesGuide.pdf.

Ontario Clean Air Partnership. (April 2011). *Public health and land use planning: Highlights.*

Ostry, A., Ogborn, M., Takaro, T. Basil, K. & Allen, D. (2008). Climate Change and Health in British Columbia. Pacific Institute for Climate Solutions. Retrieved from www.pics.uvic.ca

Poland, B. & Dooris, M. (2010). A green and healthy future: the settings approach to building health, equity and sustainability. *Critical Public Health*, *20*(3), 281-298. doi:10.1080/09581596.2010.502931

Provincial Health Services Authority. (March 2010). *Health 201: A knowledge-to-action framework for creating healthier built environments.*

Public Health Agency of Canada (2010). Sustainable Development in Public Health: A Long Term Journey Begins. Sustainable Development Strategy 2007-2010.

World Health Organization (WHO). 1998. Settings for health – WHO health promotion glossary. Retrieved from: http://www.who.int/hpr/NPH/docs/ hp_glossary_en.pdf

W.K. Kellogg Foundation. 2004. *Building Leadership Capacity for the 21st Century.* Report from the Global Leadership Scans. http://www.wkkf.org

# APPENDIX A:
# The Healthy Communities Approach



The Healthy Communities Approach: A Framework for Action on the Determinants of Health

**CORE VALUE**
Capacity Building and Empowerment (Individuals, Organizations, Communities)

**Key Building Blocks of the Healthy Communities Approach**

- COMMUNITY/CITIZEN ENGAGEMENT
- MULTI-SECTORAL COLLABORATION
- POLITICAL COMMITMENT
- HEALTHY PUBLIC POLICY
- ASSET-BASED COMMUNITY DEVELOPMENT

**Integrated Action on the Determinants of Health**

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

**Examples of Outcomes**

**Individual**
- Skills/Behaviours
- Social Participation
- Lifestyle
- Knowledge
- Health Status

**Organization**
- Participation
- Skills Development
- Critical Knowledge
- Communication
- Recognition
- Provision/Access to Services

**Community**
- Governance
- Social
- Economy
- Culture
- Environment
- Healthy Public Policy
- Resilience
- Social Inclusion

**Regional/Provincial/National**
- Governance
- Legislation
- Programs
- Healthy Public Policies

Developed collaboratively by Ontario Healthy Communities Coalition, BC Healthy Communities, Reseau Quebecois De Villes Et Villages En Sante, Mouvement Acadien Des Communautes En Sante Du Nouveau-Brunswick

BC Healthy Communities — People Place Potential

# APPENDIX B - List of Interviewees:

**Winnie Yu:**        Manager of Healthy Environments, Chronic Disease/Injury Prevention and Built Environment, Province of BC

**Narissa Chadwick:**    Senior Planner, Intergovernmental Relations and Planning, , Ministry of Community Sport and Cultural Development

**Pam Moore:**       Manager, Health Community Environments, Interior Health Authority

**Jami Brown:**       Manager Healthier Communities, Fraser Health Authority

**Sarah Webb:**       Climate Action Program  Coordinator, Capital Regional District

**Tanis Cheadle:**     Provincial Manager, Population & Public Health Initiatives, Provincial Health Services Authority, British Columbia

**Victoria Barr:**      Public Health Consultant and PhD Candidate, University of British Columbia

**Tim Takaro:**        Associate Professor of Health Sciences, Simon Fraser University