



**Healthy  
Communities  
Practice Guide**



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**This guide** is designed for planning practitioners to help them in their work towards healthier communities, and to increase the understanding of the supporting role that health practitioners can play in reaching our common goals. It provides a framework for considering the interconnected aspects of a healthy community, and includes practical examples of how others are accomplishing their goals.

## Acknowledgements

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The Canadian Institute of Planners is an active partner in the Healthy Canada by Design CLASP initiative (Coalitions Linking Action and Science for Prevention), which is led by the Heart and Stroke Foundation and largely funded by Health Canada via the Canadian Partnership Against Cancer. Under this initiative, in early 2010, CIP Council approved a partnership with the Heart and Stroke Foundation of Canada to help mobilize CIP membership, provide input, monitor research, and help guide changes to planning practices. The Healthy Communities Practice Guide is part of this initiative.



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## 1. Introduction

If you ask someone to envision their ideal healthy community, they might describe a scenario similar to the following. Birds chirp overhead, perched in the limbs of a tree. You stop and take a moment to enjoy your surroundings, feeling calm and connected: native plants and perennial herbs that line the boulevards; the last of the previous day's rain percolates back into the earth through the bioswale beside the path. You are on your way to work, and during the 10 minute walk between your home and office you encounter several neighbours at the local coffee shop. They are trading stories about meals made with the delicious vegetables they picked up at the farmers' market on the weekend. At your office, you greet a co-worker as he locks up his bicycle in the building's bike parking, and once settled at your desk you open the window to let in the morning's cool, natural air.

This is not an unattainable romantic vision. It is one picture of a healthy community and it is a picture that has existed in the past and still exists in some communities today and it is a picture that we, as planners, can help make come true. Its component principles—liveability, sustainability, and equity—are as applicable in a rural village as a metropolitan downtown. And while the form and scale of how these principles play out will differ across a variety of community sizes, the intention remains the same: we all deserve to live in places that support our physical, social, mental and spiritual well-being.

The CIP Healthy Communities Practice Guide was created to help planners discover opportunities and methods for collaborating with health professionals, as well as various other professionals, stakeholders

and community members, towards common goals for healthy communities.

These goals have become more urgent in the context of many of the alarming trends in public health. Obesity levels and chronic disease rates have been climbing steadily for the past 30 years and these rates have direct links to the lack of physical activity among Canadians—over half the population 12 years and over are not physically active.<sup>1</sup> Diseases associated with obesity and low rates of physical activity - heart disease, stroke, high blood pressure, Type 2 diabetes—are currently among the leading causes of death.<sup>2</sup> And the proportion of Canadian youth that are overweight or obese has tripled in the last 25 years, to a current 26% of youth between the ages of 2–17.<sup>3</sup> Air pollution further compounds these problems; data

indicate that hospital admissions for heart disease and stroke increase when there are higher levels of air pollution.<sup>4</sup> In addition to these largely physical health problems, Canadians are also experiencing high rates of mental health problems,<sup>5</sup> including high rates of problem substance use.<sup>6</sup> Our social wellbeing is harmed by the social isolation and alienation that some people and communities experience, leading to a fraying of our social fabric.<sup>7</sup>

**Obesity levels have been climbing steadily for the past 30 years and these rates have direct links to the lack of physical activity among Canadians—over half the population 12 years and over are not physically active.**

annually for the treatment of chronic diseases that are largely preventable, and carries an estimated annual economic burden of \$5.3 billion.<sup>14</sup> The economic benefit of physical activity is not just seen at the municipal level - the World Health Organization reports that employees who are physically active miss fewer days due to illness, lower turnover rates, lower healthcare costs and increased productivity which can result in a benefit to the employer of \$513 per worker per year.<sup>15</sup>

The health of our ecosystems are faring no better—climate change is impacting communities throughout the world and will continue to do so at an increasingly accelerated rate under current human practices, bringing anticipated sea level rises, higher temperatures, an increase in extreme weather events, and changes in patterns and levels of precipitation.<sup>8</sup> Overuse of the world’s natural resources such as fisheries, forests, fresh water, fossil fuels, and quality topsoil for farming are depleting these life-sustaining systems at a rate faster than they can naturally be replaced, and threatening biodiversity.<sup>9</sup> Since human health is ultimately dependent on ecosystem health, these declines in ecosystem health will threaten human health.

Fortunately, addressing these trends can provide opportunities for multiple benefits. For example, increasing physical activity levels by encouraging walking rather than driving can be effective in reducing obesity levels,<sup>10</sup> but it can also reduce greenhouse gas emissions and improve air quality,<sup>11</sup> contribute to a more liveable and sociable environment,<sup>12</sup> and reduce the strain on ecosystem health.<sup>13</sup>

While transitioning towards healthier communities may require upfront costs, the costs of not addressing the outcomes of an unhealthy community are enormous in comparison. The Federation of Canadian Municipalities estimates that physical inactivity costs more than \$2.1 billion in direct health care costs

The relationship between planning and health is well-documented. There are a multitude of existing resources that present research findings on this relationship, making the case for the planner’s role in creating healthier communities.<sup>i</sup> British Columbia’s Provincial Health Services Authority summarizes these connections as follows:

- walkable neighbourhoods are associated with changes towards more active travel behaviour;
- walkable neighbourhoods are associated with lower body weights;
- increased density is associated with less pollution;
- pedestrian-friendly streetscapes encourage physical activity;
- pedestrian-friendly streetscapes are associated with fewer traffic accidents and less crime;
- public transit encourages physical activity;
- the built environment influences nutrition; and
- improving the food environment can improve nutrition.<sup>16</sup>

This Practice Guide is intended to help planners transition from “why” plan for healthy communities to “how” to effectively do so. A survey of over 800 CIP members<sup>17</sup> showed that almost 90% of respondents were aware of the impacts of the built environment on health in their communities. One of the main barriers listed to transitioning this knowledge into action

<sup>i</sup> Some of these are provided in the Resources section at the end of this document.

was overcoming the disciplinary “silos” and multiple disconnected jurisdictions that are all-too-often present in both the planning and health sectors. Members stressed a need for inter-sectoral collaborations to implement community health strategies with regard to planning, but indicated that it was a challenge to make this happen. What is needed is assistance to build long-term alliances between disciplines and between organizations.

The Practice Guide contains the following elements to support planners in their work:

- A framework expressing the underlying principles of healthy communities
- Background context on each topic, including emerging evidence and trends
- Methods for using existing planning tools as well as new measurement tools
- Opportunities for collaborating with other disciplines
- Practical examples of healthy community initiatives from a variety of community scales

The Healthy Communities Practice Guide is one contribution in a much wider state of practice of creating Healthy Communities (see box, below).<sup>ii</sup> It relates to previous and emerging work in this field, including linkages to more specific initiatives to create age-friendly communities,<sup>18</sup> communities connected to nature,<sup>19</sup> post-carbon “transition town” communities,<sup>20</sup> child-friendly communities,<sup>21</sup> and inclusive communities;<sup>22</sup> as well as broader movements to create green and sustainable communities. A healthy community is all of these; rather than being exclusive of each other, they all are needed for a truly healthy place.

ii The Healthy Cities movement started in Canada between 1914 and 1920 when provincial and municipal planning legislation started to acknowledge public health. In the mid 1980s, the more modern Healthy Cities movement launched in Canada and Europe with the World Health Organization’s Healthy Cities Project with a focus on primary health care and health promotion. Initiated in Europe, this project grew to involve over 500 cities in Europe and over 300 towns in Australia, Canada, the United States; in recent years it has also included hundreds of cities and towns in Latin America, Asia and Africa and has resulted in the development of a broad range of strategies to address the social, environmental and economic determinants of health.

### **ELEMENTS OF A HEALTHY CITY IDENTIFIED AS PART OF THE WORLD HEALTH ORGANIZATION’S 1986 HEALTHY CITIES PROJECT**

1. A clean, safe, high quality physical environment (including housing quality).
2. An ecosystem which is stable now and sustainable in the long term.
3. A strong, mutually-supportive and non-exploitative community.
4. A high degree of public participation in and control over the decisions affecting one’s life, health and well-being.
5. The meeting of basic needs (food, water, shelter, income, safety, work) for all the City’s people.
6. Access to a wide variety of experiences and resources with the possibility of multiple contacts, interaction and communication.
7. A diverse, vital and innovative city economy.
8. Encouragement of connectedness with the past, with the cultural and biological heritage and with other groups and individuals.
9. A city form that is compatible with and enhances the above parameters and behaviours.
10. An optimum level of appropriate public health and sick care services accessible to all.
11. High health status (both high positive health status and low disease status).<sup>23</sup>



## 2. Framework

### SUMMARY

We begin with an understanding that healthy communities are complex, adaptive systems and that our research, understanding and practice needs to reflect this reality. This demands a principled community planning framework that adequately captures the dimensions of healthy communities from the everyday interactive perspective—the “who” and the “what,” the temporal, process-oriented perspective—the “when,” and at different scales—relative size and intensity. The topics addressed in this guide are organized according to these three primary frameworks.

The guide places a strong focus on the built environment because of its powerful influence on many factors affecting human and ecological health. These topics are addressed primarily within the process oriented perspective which organizes the bulk of the “traditional” land use planning activities covered in the guide. This section is entitled “Innovations in Planning and Design” and addresses the four broad stages of the planning process.

**The focus on innovation is significant—there is a need to rethink planning in all contexts, including the legislative frameworks in which planning functions at all governmental levels, and the way in which we collaborate between disciplines.**

The focus on innovation is significant—there is a need to rethink planning in all contexts, including the legislative frameworks in which planning functions at all governmental levels, and the way in which we collaborate between disciplines. We are in the midst of a changing paradigm: whereas the earlier application of public health sciences in municipal planning involved the prevention of infectious diseases, the current focus is on the prevention and control of chronic diseases that relate to the built environment and are slower to develop throughout populations. This shift is so fundamentally important that it is discussed early on and featured heavily throughout the guide.

The wide range of topics and the disciplines which work within them is reflected throughout the guide, but three topics receive special treatment: social development, mental health, and spiritual well-being. These comprise the section entitled “Going Beyond Land Use Planning.”

Finally, the guide seeks to reflect a diversity of community scales across Canada which is best reflected through the interviews and examples represented.

## HEALTHY COMMUNITY AS A COMPLEX ADAPTIVE SYSTEM

Health is a broad concept, encompassing physical, mental and social wellbeing, quality of life and human development; it is as much about a process as it is a status, about *becoming* as much as being.<sup>iii</sup> The health of a community is not just about the health of the people, but about the healthfulness of their environmental, social and economic conditions and of the community, social and political processes that lead to the shaping of those conditions. A Healthy Community is therefore a complex adaptive system, constantly changing, flexing and evolving. It will emerge from the contributions of professions and disciplines across the board, each recognizing their ability to collaborate and contribute. Progress is made when disciplinary “silos” become more flexible—even fluid—allowing specialized knowledge to be shared between municipal departments, government jurisdictions, and stakeholders.

## EVIDENCE AND EXPERIENCE

The planning profession relies on legislative framework, policy and regulations as its primary tools, much of which is determined by planning theories, politics, qualitative research, design influence, community aspirations, or available technology. Within the health professions, there has increasingly been a strong reliance on evidence-based (or evidence-informed)<sup>iv</sup> decision-making that highlights rigorous quantitative and qualitative research.<sup>24</sup> In order to increase collaboration opportunities and the integration of perspectives, these frameworks need to become more closely aligned. This will require planners to

iii The World Health Organization adopted the definition of health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” in 1948, and it has not been amended since.

iv There is a transition by some in the health field towards the terminology “evidence-informed” rather than “evidence-based” practice. This is in acknowledgment of the role of other aspects such as ideology or stakeholder interest in decision-making. We have chosen to use the more widely-used terminology of evidence-based.

examine the science behind their recommendations and decisions, and will mean health professionals and planners may need to both “meet halfway” with the evidence and experience they typically bring to the table. A common language will increase the respect, cooperation and dialogue between the disciplines.

**It’s the details that have great payoff: community design and its effects on creating a high quality of life, with the resulting benefits for physical, mental and social well-being.**

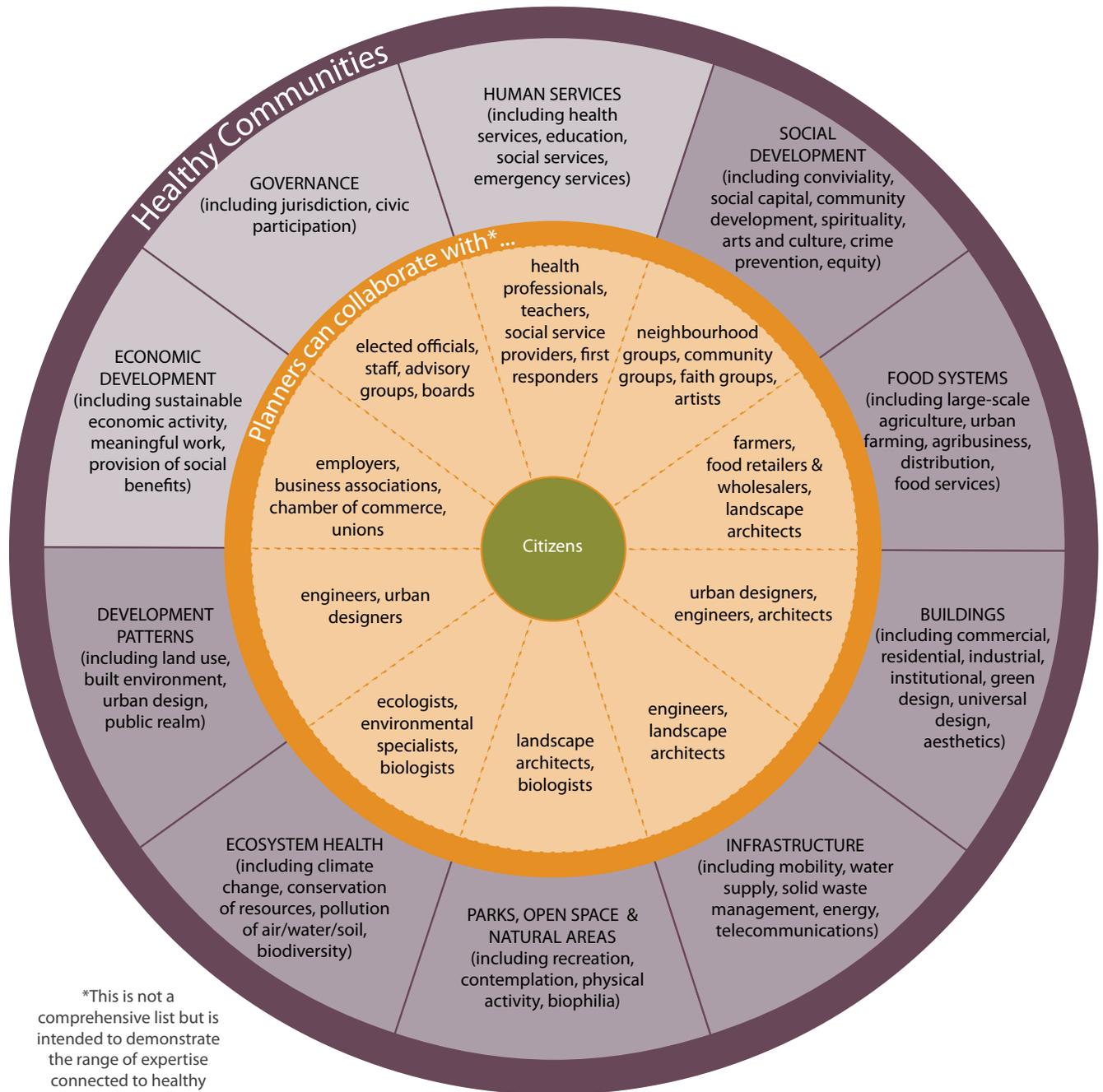
In the everyday world, decisions are not only based on information, but on reflection grounded in the planner’s experience and the available models, tools, and community interests. Even the understanding of evidence itself varies: what we choose to measure, using what metrics, and attaching what significance to the results is more a factor of philosophy, values and politics than science.<sup>25</sup> This context needs to be taken

into account when applying evidence in practice. The “back-and forth” relationship between context and evidence forms the basis for a successful partnership between planners and researchers. Public health researchers are challenged to define and measure built environment variables in such a way that their analyses make sense; this challenge is compounded when results must be interpreted, especially where determination of causation is involved. One of the most useful skills a planner possesses is the ability to synthesize a wide variety of information, and to frame this in a way that the intended audience will understand; whether that be audience is a city council, staff, community members, or stakeholders. Planners can help frame the questions, and researchers can work on finding data that will help answer them. Both fields can work in tandem to report the research findings and interpret their applicability in the field within specific contexts.

To this end, the Healthy Communities Practice Guide has attempted to bring together evidence, experience, and the communicative processes in which a planner engages, with the recognition that every community will have a distinct context that requires a suite of tools from which to select.

**Figure 1: Who + What: Points of Modern Disciplinary Convergence**

This diagram presents a visual depiction of the wide range of topic areas and disciplines that can be drawn on in the creation of healthy communities. The darker shaded sections are those focused on in this guide.



\*This is not a comprehensive list but is intended to demonstrate the range of expertise connected to healthy communities

## A FOCUS ON THE BUILT ENVIRONMENT

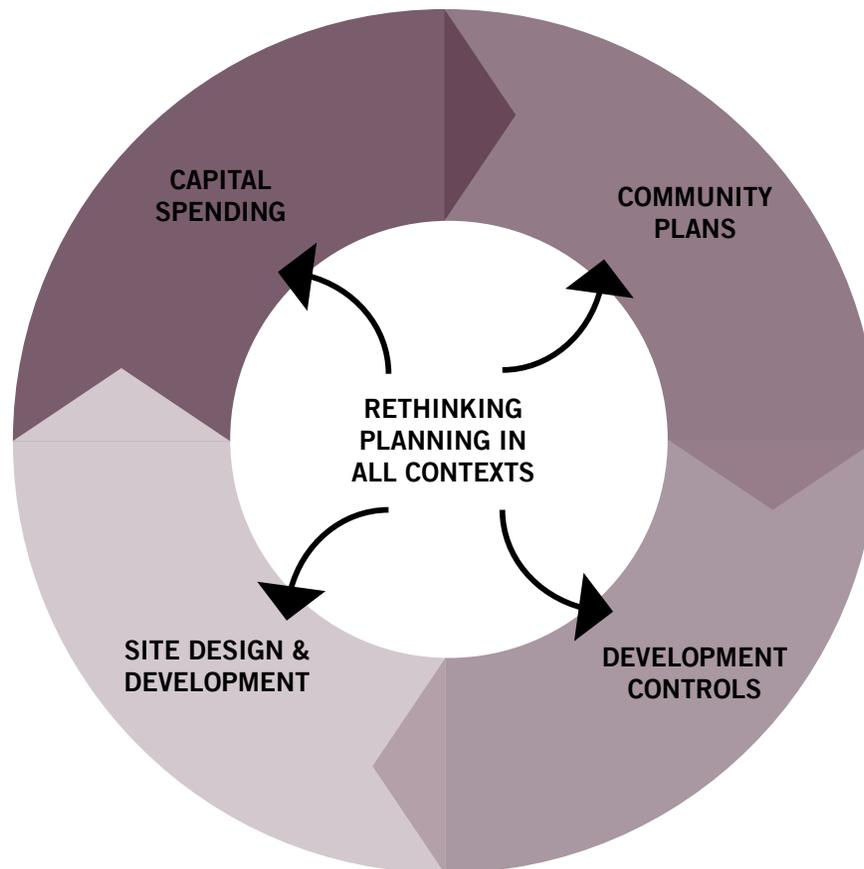
A Healthy Community provides multiple benefits across numerous topic areas. There are very few topics that can't relate in some way to the health of a community. To cover a truly comprehensive analysis of its entire component parts could be an endless - though enlightening - pursuit. In this Practice Guide, the focus is on the elements that are the most impacted by the built environment, where the “details of everyday life” are shaped. Consider, for instance, the auditory environment: the excited shouts of

children playing in a park, the happy exchange while buying bread at the market, the low-level hum of conversations present in cafes. This “soundscape” is possible partly because of the attention to detail in the creation of a community. It's the details that have great payoff: community design and its effects on creating a high quality of life, with the resulting benefits for physical, mental and social well-being.<sup>v</sup>

<sup>v</sup> The Public Health Agency of Canada, Canada Mortgage and Housing Corporation, Infrastructure Canada, Transport Canada, Heart and Stroke Foundation of Canada, and the National Collaborating Centres for Public Health, among many other organizations, have all committed to promoting healthy built environments (Public Health Agency of Canada website, 2011)

**Figure 2: When: Points of Strategic Collaboration in the Planning Process.**

This diagram indicates the potential planning phases for implementing strategies for healthy communities.



This includes more familiar topics such as development patterns, ecosystem health, parks and natural areas, and infrastructure. But it also includes social development: our built environment can encourage conviviality and community connectedness, arts and culture, even spiritual connections. It can impact the way we grow, distribute, and celebrate our food: the entire “food system.” However, though economic development, governance, and human services are recognized as integral components of a healthy community, they are impacted by the built environment to a lesser degree and thus this terrain is left for another initiative to explore.

### SUPPORTING HEALTH THROUGHOUT THE PLANNING AND DEVELOPMENT PROCESS

There are opportunities to address and support community health strategically throughout the planning and development process:

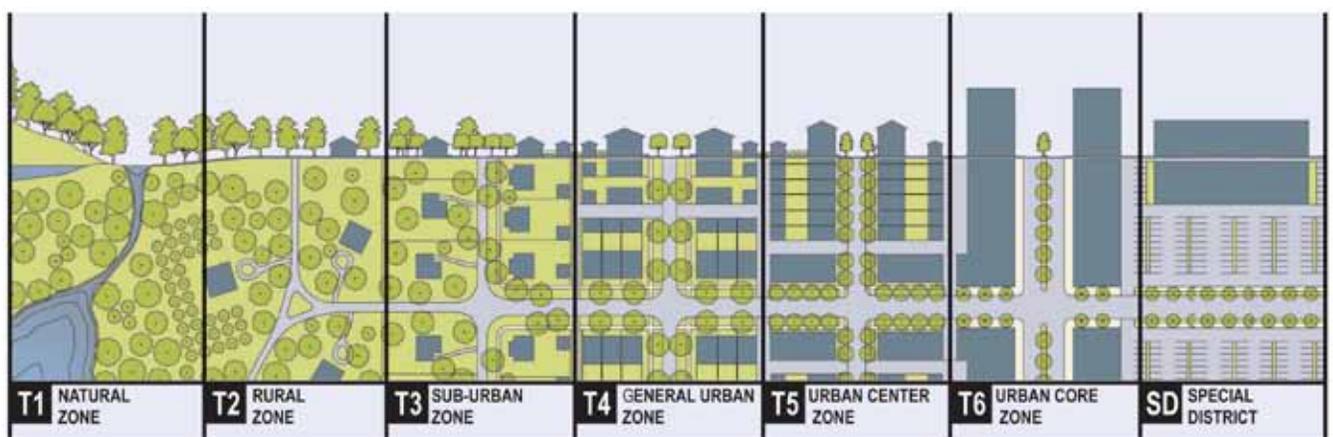
- visioning, goal setting and plan making;
- crafting land use development controls;
- site design & development; and
- siting public facilities and capital spending.

Public health practitioners, researchers and planners, as well as other professionals and advocates, that represent the full spectrum of healthy communities

should be invited to participate at all points in the process, as planning and advisory committee members; as researchers for background studies; as technical advisors for the writing of development controls (zoning, subdivision, design guidelines); as referral responders for specific development proposals; as widely-respected, neutral messengers to help communicate to community stakeholders the health benefits and costs of various planning policy options;; to provide information on best practices; as participants in community engagement exercises such as design charrettes; as advisors for crafting capital improvement plans and for decisions in locating public facilities such as schools, libraries and hospitals. Planning can be seen as an iterative and ongoing process that never really begins or ends, thus, these opportunities should not be seen as one-time fixes. A durable approach is to hard-wire the collaborative participation at all levels of the process, with variations in the approach based upon local community context and Provincial legislative frameworks.

In addition, there is an opportunity to re-think the legislative and organizational framework in which planning is done in all contexts. For example, at the national level we can review, advocate and work to reform laws, commitments and programs such as those pertaining to the environment, agriculture and food policy, energy, transportation and housing. At the provincial level we can rethink matters such

**Figure 3: Where: The Rural-to-Urban Transect<sup>27</sup>**



as land use legislation, health services, environmental protection regulations, roadway, pedestrian, and cycling standards, and funding allocation priorities for transportation infrastructure. At the regional level we can focus on matters such as growth management strategies, sustainability plans, resource recovery, and transportation planning. At the local level we can rethink and reform zoning bylaws, subdivision bylaws, and parking and street standards; we can recast all of our planning processes, from community plans to capital improvement plans, with a healthy community lens.

## HEALTH AND WELLNESS AT A VARIETY OF SCALES

The context of a place has a large influence on the appropriate tools and strategies available for building healthy communities. For example, population densities can affect the level and type of transit service provision, traffic levels, or the number and type of retail services. A bicycle route in a rural environment will have different considerations than one leading through an urban centre. A 20 storey condominium with a mix of retail and services at its base may fit fine within a metropolitan downtown, but would be inappropriate and out of scale in a smaller, rural or resource-based community.

A useful frame for considering the different approaches at different scales is the rural-to-urban transect. The SmartCode<sup>vi</sup> is an example of a

**While specific approaches will need to differ depending on scale, the fundamental role of the neighbourhood in building community and providing the essential services for daily life cannot be overstated.**

transect model that uses different zones based on a variation in the ratio and level of intensity of their built, natural and social components to develop zoning systems. Each zone's context is defined through multiple factors, including land use, density and design features. An example of the transect's application to creating healthy communities at different scales is the Institute of Transportation Engineers' use of this transect model in their Context Zone

approach to urban thoroughfare design.<sup>26</sup>

As in the SmartCode scheme, the neighbourhood is generally accepted as a central organizing principle for planning healthy communities. Whether in a rural village or a metropolitan city, neighbourhoods are where people live their daily lives. While specific approaches will need to differ depending on scale, the fundamental role of the neighbourhood in building community and providing the essential services for daily life cannot be overstated. Yet we recognize that the neighbourhood is limited in scale and that many aspects of creating healthy communities are city-wide or regional; for example watersheds, commuter-sheds and food-sheds. Planning healthy communities will require an understanding of the appropriate application of planning techniques at the different scales of intensity as depicted in the rural to urban transect, but also different scales in terms of overall population size. In the Practice Guide, we have provided examples from a range of community sizes and characteristics (rural, remote, town, medium sized city, large city, metropolitan region).

vi The SmartCode was first released in 2003 by Duany Plater-Zyberk & Company; it is available for download from the Center for Applied Transect Studies at <http://www.transect.org/codes.html>



### 3. Collaboration in Practice

Planners and health professionals are key players in strengthening the health-promoting features of the built environment. In addition to liaising with Environmental Health Officers, who can assist with the implementation and enforcement of policy, and Medical Health Officers, who can apply scientific evidence to design and monitoring efforts, we can look at Occupational Therapists to assist in redesigning spaces to better meet the needs of the disabled, the elderly, or those suffering from illnesses. We can recruit doctors to write “prescriptions” for patients to encourage them to walk to work. We can invite health officials to present at public open houses or Council meetings about the health benefits and costs of various policy options.<sup>vii</sup>

Many collaborations arise from grant-funded initiatives: for instance, a new bicycle route, an assessment tool, a one-year job posting, a “walking school bus” program, or a physical activity campaign. While these

vii Formal “park prescriptions” are already being written by many doctors. A family physician in San Francisco, Dr. Daphne Miller, includes the location of a local green space, the name of a specific trail, and even exact mileage in her prescriptions to patients. A cardiologist in Little Rock helped create a downtown “Medical Mile” with the support of local funders and the National Park Service. The City of Santa Fe launched a “Prescription Trails” program in response to the high rate of diabetes in the community.

opportunities are vital and should continue to be pursued, there is also a need to transition to more structural and systemic partnerships. This requires a long-term investment in time, energy and intellect, but not necessarily money. It is about learning to work across disciplines, to listen and learn, change the culture and work better and smarter. The response to CIP members’ survey on planning for healthier communities indicated a desire for professional development and cross-sectoral training. One survey respondent wrote:

*[We need] professional development opportunities for planners to upgrade their ability to effectively work with others. This includes learning opportunities that are for planners AND OTHERS at the same time. We need to integrate with others rather than keep ourselves separate. We think we do this; but we don't. It will take courage to do this—it's like asking the other kids if we can join in on the playground.<sup>28</sup>*

In the creation of this Practice Guide, interviews were undertaken with different planning and health professionals on their experience with cross-discipline collaboration. A theme in all of their stories was

the need to provide a common language. Planners and health professionals have much to offer each other, but without an understanding of how to frame the relevant information so that it resonates with the intended audience, this assistance can be limited in its effectiveness. In addition, discipline-specific terminology and extensive use of acronyms can confuse even easily-understood concepts.<sup>viii</sup>

viii To support the development of a common language, the Planning Active Communities Across Ontario (PACAO) Committee has developed a joint glossary of over 130 terms for land use planners and public health professionals, based on commonly used terms in provincial documents. Over time, documents from municipal, district and non-governmental organization sources will be reviewed and incorporated. This resource is available at [www.planningactivecommunities.com](http://www.planningactivecommunities.com)

### **LEARNING FROM EXPERIENCE: PLANNING ACTIVE COMMUNITY ENVIRONMENTS (PLACE)**

PLACE is jointly sponsored by the Regional Institute of Health & Environmental Leadership (University of Denver) and Colorado's Department of Public Health and the Environment. This program provides interactive training and regional dialogue on planning active and healthy community environments. The program seeks the following outcomes:

1. increased knowledge and skills with regard to planning healthy communities;

2. increased interdisciplinary and inter-jurisdictional collaboration; and
3. systemic changes in the way organizations work internally and inter-jurisdictionally.

Trainers and participants come from state, county, and municipal governments,—including elected and appointed officials-- health authorities, schools, universities, foundations, neighbourhood associations, and the program has a special emphasis on local municipal collaboration. Government departments represented include planning, public health, transportation engineering, parks and recreation, economic development.

# In their own words

## Project Description:

Initiated in 2010, the Chatham-Kent Public Health Unit (a municipal department) embarked on a series of projects to support healthy communities planning. They hired consultants to assist in an Official Plan (OP) review, which supported the development of a local *Community Picture* to give a ‘snap-shot’ of the current state of health of the residents. The OP was reviewed for policies that relate to the Ontario Ministry of Health Promotion and Sport (MHPS)’s six public health priorities: physical activity, sport and recreation, healthy eating, mental health promotion, tobacco use/exposure, substance and alcohol misuse, and injury prevention. A set of recommendations was made based on this review, including policy amendments to the municipal Official plan. Multiple policies were developed through a review of the evidence, and they were evaluated against the health status data available and potential policy gaps.

This initiative exposed the Public Health Unit and the Planning Department to each other in a more comprehensive way than had previously been undertaken, and set the stage for future collaboration. Public Health also heard from community leaders across twelve sectors and communities that identified a need for actions. Community leaders told the Healthy Communities

**Interviewee:** Sari Liem, project consultant, Dillon Consulting

**Community name:** Chatham-Kent, ON

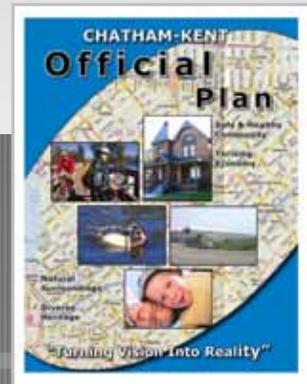
**Approximate population size:** 108,000 (2006), 74% in urban centers, the rest in rural communities

**Key Collaborators:** Public Health Unit, Planning Department, CAO Corporate Services, Active Communities Steering Committee (Committee of Council) and Community Services Department

**Relevant Planning Process:** Community Plans; Rethinking Planning

## PURPOSE OF AN OFFICIAL PLAN

- The Official Plan for the Municipality of Chatham-Kent is a long range policy document which guides decisions involving land use and the management of natural resources within the Municipality.
- It manages growth, protects natural and cultural heritage features and addresses the Municipality's needs for community level planning.
- The Official Plan provides guidance to Council and the community for achieving the *Community Strategic Plan*.
- It plays a critical role in achieving Council's Strategic Directions.



Chatham-Kent Healthy and Active Communities Official Plan Amendment  
October 17, 2011

Presented by Dillon Consulting Limited



Partnership that there is also a need for a strategic coordinated approach that engages the whole community, to make health the easy choice.

At this point, the Planning Department took the lead, and had the consultants do a similar exercise—taking the initial public health recommendations and developing Official Plan amendments. These were adopted in the fall of 2011. As part of this initiative, other municipal plans were reviewed for policy consistency against health goals, including the Parks and Recreation Master Plan, the Trails Master Plan and the Transportation Master Plan.

**Community leaders told the Healthy Communities Partnership that there is also a need for a strategic coordinated approach that engages the whole community, to make health the easy choice.**

In 2011, The Chatham-Kent Board of Health recognized the need for a municipal framework for decision-making. They wanted something to assist them with putting the health lens front and centre among all departments. Currently, there is no comprehensive health strategy for Chatham-Kent. It was recommended that a Health Strategy be developed based on a “Health in All Policies (HiAP)” approach, which promotes healthy public policy, encourages diverse sectors to work together, and considers the health impacts of all policies and practices.

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

Start small and build support through collaboration and dialogue. The work in Chatham-Kent has consisted of five relatively small initiatives that built on each other. This also means you won’t burn people out at the beginning of a project. In addition, relationships between collaborators get stronger over time, and maintaining the momentum with a series of smaller initiatives can help build on these.

Conducting a similar exercise with various departments means a common understanding is established. The Public Health Unit, Planning Department and the Active Communities Steering Committee used a review of the Official Plan to gain a better understanding of how planning and health were interrelated.

**HEALTHY COMMUNITIES PICTURE**

The purpose of the Community Picture Report is to work towards a culture where the healthy choice is the easy choice. The process included:

- an assessment of community assets and gaps, including a review of the Official Plan
- consultation with community members
- the selection of policy and program priorities
- the identification of action steps
- the development of a partnership to steward the recommendations of the Community Picture process



Chatham-Kent Healthy and Active Communities Official Plan Amendment  
Presented by Dillon Consulting Limited

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## 4. Innovations in Land Use Planning and Design

Land use and design decisions at all levels have a profound and lasting impact on our health because of the ways those decisions shape the built environment. Planning and design choices can mean the difference between a community where people turn to their walking shoes and one in which they reach for their car keys. Adults who live in more walkable neighbourhoods drive less. In the most walkable neighbourhoods in the region, adults drive, on average, 58% less than those living in the least walkable neighbourhoods.<sup>29</sup>

Not surprisingly, more time spent in a car is associated with obesity: each additional hour spent in a car per day is associated with a 6% increase in the likelihood of obesity.<sup>30</sup> People living in moderate-to-high density neighbourhoods with a mix of services within walking distance are 2.4 times more likely to meet their 30 minutes of daily recommended activity requirements and thus contribute to better health.<sup>31</sup>

There are opportunities present at each stage of the planning and development process to assist with the transition to a healthier community. From plan making, development controls, site design and development, and capital spending and siting of public facilities, planners can work with others towards common goals.

### 4.1. Creating Visions, Setting Goals, and Making Plans

In any plan creation or revision process, the standard of practice is to engage a broad mix of stakeholders to provide input for the plan's vision, goals, and strategies. A plan without community buy-in is unlikely to succeed, and many stakeholders provide unique perspectives and considerations that go beyond the expertise of the planner, creating a better end product.

**In the most walkable neighbourhoods in the region, adults drive, on average, 58% less than those living in the least walkable neighbourhoods.**

Involving public health professionals early in this process allows them to comment on protecting and enhancing quality of life—a value that inevitably arises in any visioning session. For health professionals, quality of life relates directly to the physical, mental and social well-being of individuals. This perspective will complement the planner's perspective which generally includes factors like traffic issues,

housing affordability, open space, community safety, and local services. Without the health profession in attendance, the effect of the built environment on either enhancing or hindering the public's health is not likely to get addressed in any detail. In addition to formal partnerships for specific visioning, goal setting, and planning initiatives, planners and public health professionals should look for opportunities to

collaborate routinely on areas of overlap. Building these relationships will make it easier to bring health professionals to the table once a planning process begins.

There are additional benefits associated with bringing engagement of health officials to the next level and making them full partners in the development of planning policy and documents, or even “co-authors” of major plans. In doing so, planners lay the groundwork necessary to facilitate participation of health stakeholders not only in policy development but also in policy implementation and in shepherding the direction set by the planning documents in the short, medium and long-term. A strong health presence in foundational planning documents sets the stage to allow health agencies to justify continued participating beyond policy adoption, and assists the community in meeting its planning goals that align with health objectives.

Health professionals can assist in educating the public on development patterns and:

1. the ability to be physically active in their daily routines, such as walking to work;
2. effects on air quality;
3. effects on stormwater runoff, which affects groundwater and drinking water quality;
4. potential impacts of local industry or hazardous waste transportation corridors;
5. the relationship between access to green space, exposure to nature and mental and social well-being; and
6. impact of neighbourhood design on factors such as access to food, crime and mental health.<sup>32</sup>

They can also provide education and information on health equity issues, injury and death rates due to traffic accidents, causes of death due to physical inactivity, and a variety of other environmental and public health data.

#### 4.1.1. Engagement, Participation and Communication

Engagement and participation is vital in creating effective policy and programs for community health that are inclusive and holistic. The ways in which information is gained, shared, and diffused among community members and stakeholders can vary widely; however, the end goal remains the same—to involve people in the processes and decisions that affect their lives. Empowered people and communities can be more resilient in the face of adversity.

Engagement activities provide a forum for citizens and other stakeholders to voice their opinions and ideas, share local knowledge, learn from others, and obtain pertinent information. Governments and health authorities are recognizing that they cannot and should not create policy on their own, and that meaningful engagement from

**As Knevitt and Wates write, “the environment works best when those who live or work in it are involved in designing it.”**

communities is needed to address community issues. As Knevitt and Wates write, “the environment works best when those who live or work in it are involved in designing it.”<sup>33</sup> These processes of engagement and participation can also contribute positive benefits to community health through enhancing knowledge about local issues, providing a sense of belonging and stewardship, and empowering individuals to help themselves and others.<sup>34</sup>

Since the 1990s, evolutions in technology and communication techniques have led to changes in public participation, engagement strategies and knowledge sharing. From relaying important information to providing new means of social connection and cohesion, the ways in which we share ideas, interact, and connect are rapidly changing. Generally, these involve a switch away from mass media and broad-brush solutions to personalized services and more targeted marketing techniques. In addition, social media and web-based engagement tools can provide new ways of connecting individuals

and communities by providing a base for storytelling and opinion sharing.<sup>35</sup> For all types of engagement, the ways in which issues or messages are framed influences the type of participation and the results of engagement strategies.

As new technologies open doors for some, they also represent challenges for others. A lack of access to digital resources represents a challenge for

communication and social equity. In addition, the ability to learn new technologies or access appropriate training can be a limiting factor for certain individuals. Income and education play a significant role in access to information and resources, a fact that must be taken into account for new communication strategies.

Strategies for engagement include<sup>36</sup>:

**Table 1: Engagement Strategies**

<p><b>Community-based Champions or Community-Based Social Marketing</b></p>	<ul style="list-style-type: none"> <li>• Active participants from the community who can influence or inspire their peers and neighbours.</li> </ul>
<p><b>Stakeholder Involvement</b></p>	<ul style="list-style-type: none"> <li>• Traditional engagement strategies (surveys, interviews, focus groups, charrettes, public open houses and workshops, etc.)</li> <li>• Digital engagement strategies (online surveys, forums, blogs, workshops and charrettes, advertising and general information provision, multimedia presentations, photo contests, and the use of digital tools such as I-pads to collect information at traditional engagement events, etc.)</li> </ul>
<p><b>Knowledge Sharing</b></p>	<ul style="list-style-type: none"> <li>• Word of mouth</li> <li>• Door-to-door promotion</li> <li>• Group commitments and peer support</li> <li>• Mass media or local advertising</li> <li>• School programs</li> <li>• Employment programs</li> <li>• Household/family targeted programs</li> <li>• Incentive programs</li> </ul>



### LEARNING FROM EXPERIENCE: TALK GREEN VANCOUVER, BC

In early 2009 Mayor Gregor Robertson brought together a group of independent experts, the Greenest City Action Team (GCAT), to imagine what Vancouver should do to become the greenest city worldwide by 2020. As part of the “Greenest City 2020” initiative, the City of Vancouver used brainstorming, online discussions, social media, and in-person meetings to gather ideas for its sustainability action plan. Called “Talk Green Vancouver,” this public engagement component was intended to assist the City in finalizing the Greenest City 2020 Action Plan through consultation. The TalkGreenToUs.ca website drew on UserVoice, a crowd brainstorming tool, to encourage participants to submit an idea for achieving a green goal, comment on an existing idea, and vote for ideas they most

support. A moderator managed the discussion and, importantly, updated the implementation status of ideas as ‘in progress’ or ‘completed’ as appropriate. This instant feedback loop increased the City’s credibility and demonstrated commitment to the effort.<sup>37</sup>

#### Digital Engagement Tools

- **UserVoice** – crowd brainstorming
- **Drupal website** – information & feedback on plans
- **Facebook** – ongoing discussion
- **Twitter** – information sharing
- **YouTube** – video sharing
- **Flickr** – images sharing
- **Email** – participant updates
- **Google analytics** – web traffic

Photo Credit: Talk Green to Us

### 4.1.2. Community Plans

Community Plans are the cornerstone of comprehensive policy and direction at the community scale. In Canada, the Provinces and Territories delegate planning authority to local and regional governments, which, to varying degrees, are required to have some form of comprehensive plan with high level policy to address topics such as land use, transportation, recreation, infrastructure, and housing. In some areas, there are additional requirements to address sustainability issues such as greenhouse gas reductions; there may also be requirements for a community plan to comply with and complement regional plans.

Specific goals for public health that may be developed in a visioning process can be included in a Community Plan in a number of ways, but one of the most effective methods is to make health one of the plan's overarching goals. Including a narrative on the relationship between planning and health, informed by evidence, can explain why there is a focus on this goal as part of the plan. To support the high level health-related goal, more targeted objectives and policies can

be included in relevant plan elements, with associated implementation strategies. For example, a broad goal to increase opportunities for daily physical activity as part of people's routine could be supported by policies in the transportation section to require developers to install sidewalks on both sides of the street.<sup>38</sup>

**Incorporating explicit language referencing health provides a platform for health professionals to take a more active role in the [planning] process.**

In many Community Plans, elements that support "smart growth" principles are already present, which implicitly support healthy communities with their attention to complete, compact, walkable communities. However, incorporating explicit language referencing health provides a platform for health professionals to take a more active role in the process.

# In their own words

## Project Description:

The City of Kelowna began a review of their Official Community Plan (OCP) in 2007. Gary Stephen, Long Range Planning Manager, became aware that health issues were not on the table in the existing OCP review process—there is currently no legislation in place in BC mandating planners to include this consideration. Fortunately, Pam Moore, an Environmental Health Officer for Interior Health, had been working on healthy built environment issues and approached Gary as part of the OCP review and offered to assist. It became apparent from this early collaboration that the two organizations were speaking different languages; neither was wrong, but the health authority and the municipality had different ways of speaking. Interior Health offered high-level statements about the importance of topics such as healthy housing, while municipal planners needed policy language that was more detailed and specific.

To overcome this “language barrier,” Moore and Stephen looked through the OCP policy by policy, and Stephen explained what types of things the planning department wanted to see, allowing Moore to offer feedback accordingly. This process allowed Stephen to elaborate on how the detailed policy language addressed each of Moore’s

**Interviewee:** Pam Moore, Environmental Health Officer, Healthy Community Environments, Interior Health Authority; and Gary Stephen, Long Range Planning Manager, Policy and Planning Department, City of Kelowna

**Community name:** City of Kelowna, BC

**Approximate population size:** 107,000 (2006)

**Key Collaborators:** Interior Health; Municipal Planner

**Phase of the Planning Process/Stage of Engagement:** Community Plans



concerns and to assure Interior Health that the OCP was moving in the direction they wanted to see.

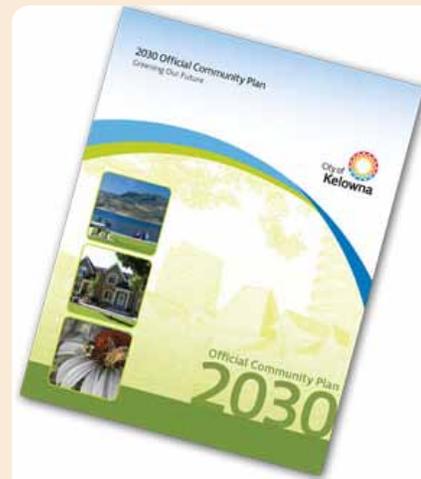
Moving forward from the successful collaboration for the OCP review, Interior Health is continuing to work with municipalities in the region to transform policy into action. Traditionally, health authorities have created local health area profiles that highlight key characteristics in health status, health system performance, and health services. Many of these are not in the scope for a local government to act on. A new health model is being developed by Interior Health that will identify key land use variables correlated from the literature on land use and health. In the long-term, these may act as useful indicators to measure progress towards OCP implementation.

**You will discover that many different organizations are on the same page, with the same goals, they just didn't know it.**

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

Get started! You can learn as you go along. Start by inviting health authorities to the table. Planners need to understand that health authorities should be part of the game, and that they have information that will really help. You will discover that many different organizations are on the same page, with the same goals, they just didn't know it. A good first step is beginning the conversation to figure out common language to satisfy both organizations' goals. Public health has a wealth of data and information that can support planners as they move forward with action items. This information can also be used to gain support from Council. It may be as simple as redefining how public health information is presented.

Chronic disease change isn't resolved overnight. But there is a need to start addressing it now. With a limited budget for both municipalities and health authorities, there is an economic argument that supports partnerships, and looking for ways to streamline towards common goals. Collaboratively, it is possible to demonstrate and justify that positive change is happening and it's working. This can help build a case to approach upper levels of government to provide grant money from the costs saved through prevention.



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# In their own words

## Project Description:

Interest in forming a partnership between the District of North Vancouver (DNV) and the regional health authority, Vancouver Coastal Health (VCH) began in 2007. The two organizations recognized their shared interest in improving overall health of the community through a healthy built environment. As the DNV began to initiate a review of their Official Community Plan (OCP), they saw a partnership with VCH as an opportunity to reach a new audience—one that would pay attention to the topic of health, though they may not initially see the relevance of a community plan.

The municipality and the health authority created a Memorandum of Understanding (MOU) to formalize their partnership, signed by the DNV Planning Director and the regional Medical Health Officer. The MOU outlined the following objectives:

1. enhance planning policies to reflect social determinants of health;
2. raise awareness of the importance of the OCP and its relationship with a healthy built environment;
3. include an evaluation component; and
4. build on the partnership to continue to work together on implementation of the OCP.

**Interviewee:** Annie Mauboules, Social Planner, District of North Vancouver

**Community name:** District of North Vancouver, BC

**Approximate population size:** 82,500 (2006), contains two town centres and six village centres

**Key Collaborators:** Vancouver Coastal Health - health authority (both regional and local), District of North Vancouver social planners and policy planners, City of North Vancouver policy planners (for some follow-up work)

**Phase of the Planning Process/Stage of Engagement:** Community Plans



Throughout the resulting OCP process, VCH staff participated in public engagement events. They prepared policy briefs in the form of facts sheets, which increased understanding of the kind of information useful to the municipality that the health authority had at their fingertips. The local Medical Health Officer was also a valuable resource, writing Op Ed pieces in the local paper and presenting as a keynote speaker at OCP events about the connections between health and the built environment.

Following the adoption of the OCP in the summer of 2011, the partnership between DNV and VCH has continued. In collaboration with the Heart and Stroke Foundation and local municipalities, the health authority delivered a “Walkability Audit” workshop

**In hindsight, a regularly scheduled reoccurring meeting would have been very helpful in providing the much needed time for discussion related to developing healthy built environment language within the policy work being undertaken by the municipal planners**



to over 100 people. Groups of ten, led by planners from both the District and the City of North Vancouver, walked around the Lynn Valley town centre and looked at land use mix, development types, public realm, pedestrian and cycle opportunities in order to complete a scorecard on neighbourhood walkability. Plans are underway to provide a follow up meeting with those residents who were interested in learning more and getting involved in community planning, to do further work on suggesting 'healthy built environment' improvements to the town centre. There are also plans to do more walkability audits in the other town and village centres across the District of North Vancouver as part of the ongoing partnership between health and planning.

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

Setting up the Memorandum of Understanding was quite a long process. While everyone agreed in principle, it was challenging to decide on the

actual logistics and organizational structure of the partnership. There has been some thought as to whether deeper participation by the health authority in the process would have been better enabled if the MOU was signed by Council, making it more formal. This might have provided more support for VCH staff to be part of the OCP team, and attend regular meetings. As it was, there were challenges in providing material (such as draft policies) to VCH with sufficient time for review within the project timeline. In hindsight, a regularly scheduled reoccurring meeting between VCH and the DNV would have been very helpful in providing the much needed time for discussion related to developing healthy built environment language within the policy work being undertaken by the municipal planners. It would have also provided time to think through the best way to leverage the participation of health staff in the public consultation process

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### 4.1.3. Functional Plans: Active Transportation, Open Space, Food Systems

Functional Plans relate to specific topic areas, and provide more targeted policy direction and strategies. Common Functional Plans include those related to recreation (such as Recreation, Parks and Open Space); active transportation (such as Cycling and Pedestrian Master Plans); food systems (such as Food and Agriculture Strategies); housing (such as Affordable Housing Master Plans); climate change and energy (such as Community Energy and Emissions Plans); or utilities (such as a Stormwater Management Plan. Typically, Functional Plans relate to the overarching goals of the Community Plan, but allow for a more detailed approach.

It is noteworthy how many of these plans are focused on issues that are of immediate relevance and concern to public health: recreation, active transportation, food security, housing, climate change and air pollution, water management and pollution. So, similarly to a Community Plan, a Functional Plan should have a clear narrative relating the topic area to health, and, where possible, should reference related health goals in the Community Plan.

#### PLANS RELATED TO ACTIVE TRANSPORTATION

Active Transportation refers to all human-powered forms of travel, such as walking, cycling, in-line skating, skateboarding, skiing, canoeing, etc.<sup>39</sup> Walking and cycling are the most popular modes, and can be combined with other modes such as public transit. Many communities are beginning to recognize the importance of promoting walking and cycling to achieve their goals for public health, greenhouse gas emissions reduction and climate

protection, and reducing traffic congestion, and are creating Active Transportation Plans or mode-specific Pedestrian or Cycling Master Plans. These may involve a combination of “hard” and “soft” infrastructure. Hard infrastructure elements typically include network design, end-of-trip facilities, and design standards for different route or trail types, while soft infrastructure may include promotion, education, encouragement and enforcement strategies.

In addition to the increased benefits from physical activity with active transportation, there are a myriad

of other contributions it can make. As Todd Litman of the Victoria Transport Policy Institute states, “Environments that are conducive to walking are conducive to people.”<sup>40</sup> Places with high levels of people traveling by foot and by bicycle can encourage more opportunities for

daily social interaction.<sup>41</sup> In the case of seniors, active living can prolong independent functioning by compressing the impairment period and diseases typically associated with aging. Physically active older adults tend to be one or two decades younger physiologically than their sedentary counterparts.<sup>42</sup> There are also equity benefits: in a car-dependent community, anybody who is unwilling or unable to use an automobile is less able to access health services, jobs and other basic necessities, which further increases their sense of isolation and day-to-day stress.<sup>43</sup> Active transportation is no or low-cost, and accessible to anyone regardless of gender, class, or cultural background.

**“Environments that are conducive to walking are conducive to people.”**



### LEARNING FROM EXPERIENCE: GREEN COMMUNITIES ACTIVE AND SAFE ROUTES TO SCHOOL

Beginning in 1996, the Active and Safer Routes to School (ASRTS) program was implemented in the Toronto School District. Due to the success of the pilot program, the initiative has expanded throughout the region, province, and country.

The program addresses multiple issues relating to community health by focusing on reducing greenhouse gas emissions and increasing pedestrian safety, community integration, and youth physical activity. Based on research findings relating automobile ownership to air pollution, respiratory issues, children's fitness levels, and traffic injuries, the program was first presented to Toronto school communities as a healthier and safer alternative driving kids to school. Initial concerns over weather, bullying, and time were overcome through trials of the ASRTS program initiatives.

Program components included:

- **The Walking School Bus:** elementary school kids walked or

biked to school with supervision from parents (or older students) encouraging physical activity, family and community integration, and group safety. In rural areas or other communities where children lived far from the school, the program encouraged parents to park within walking distance and "Walk a Block".

- **Blazing Trails Through the Urban Jungle:** children actively mapped their communities and identified safe places and routes to schools which were used for Walking School Bus routes.
- **No-Idling at School:** students raised awareness of idling issues around their schools with posters and campaigns to reduce emissions and enhance air quality
- **The Neighbourhood Walkabout:** students and parents performed a neighbourhood walkabout to identify health and safety concerns within their community and school area. This information was included in the Blazing Trails Through the Urban Jungle mapping initiative to increase awareness among students and school officials as well as parents.
- **International Walk to School Day:** encouraged families to walk their kids to school and raised awareness of issues relating to physical activity, vehicle emissions and air quality, and community enjoyment.<sup>44</sup>

Photo Credit: Safe Routes to School

# In their own words

## Project Description:

The citizens of Hamilton, Ontario have a history of civic engagement and a desire for community improvement. In recent years, neighbourhood groups recognized a need to improve pedestrian safety, and frequently contacted the City with suggestions for improvements such as new cross-walks or mid-block crossings. City staff would refer to the applicable street standards and discover that, though the community felt the situation was dangerous, there was no legal requirement to make changes as they were in compliance with the appropriate standards. This created mounting tension between the elected officials, citizens, and City staff.

In an attempt to reconcile the discrepancies between existing standards and perceived community safety, the City of Hamilton signed Walk21's International Charter for Walking, containing a number of different goals for pedestrian movement. The City hired a multi-disciplinary consultant team to assist in the creation of the Step Forward: Hamilton Pedestrian Mobility Plan<sup>ix</sup> in order to help reach the goals of the Charter.

ix The Pedestrian Mobility Plan was originally intended to be a Master Plan, but was re-visioned as a specific Mobility Plan once the process began. The draft plan is currently being reviewed, and will be refined before being passed on to Council for approval.

**Interviewee:** George McKibbon, Project Consultant, McKibbon Wakefield Inc.

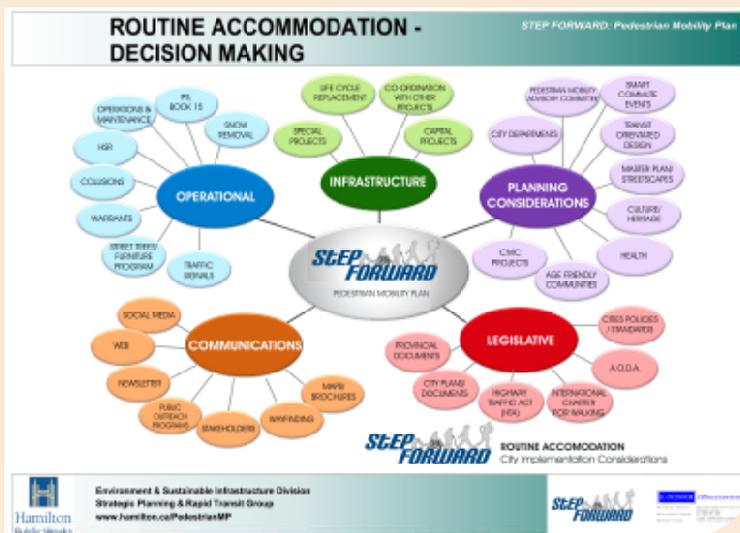
**Community name:** Hamilton, ON

**Approximate population size:** 504,500 (2006)

**Key Collaborators:** The consultant team was led by landscape architects, and included engineers, an environmental planner, lighting specialist

and transportation planners. Public health professionals were involved in the staff team review, and were also part of a Pedestrian Advisory Committee which included representatives from a wide spectrum of the community, including advocates for the elderly and the disabled.

**Phase of the Planning Process/Stage of Engagement:** Functional Plans



The development of the plan included an analysis of relevant public health evidence in order to establish basic principles to increase pedestrian activity. The team looked at data from accident reports supplied by the police department to determine where collisions were happening, and complemented this with an online mapping-based survey asking participants to identify areas where they liked to walk as well as where they had difficulties

**the groups were taken out for a walk-about to actually experience the pedestrian environment in a variety of locations. This exercise opened a lot of eyes, providing an opportunity for end-users of all abilities to comment on the effectiveness of some of the designs**

An urban transect model was adapted in order to characterize the street environments across the city. Several new transect zones were added, and ones that were not applicable were removed. These zones were then mapped across the city in order to determine which policies and standards would best apply where. Following this analysis, the team realized the need to create new standards for three main pedestrian situations: walking along the street; walking across the street; and walking to and from transit stops. A collection of around 40 “counter measures” were created as a result, consisting of design details to address the three types of experiences.

In order to make it as easy as possible for the City to implement the recommendations, the consultant team considered how the City made decisions and then catered the recommendations to fit within this framework. This involved embedding a process to enable staff to use the counter measures and other policies and programs to create safe and interesting pedestrian environments as part of “routine accommodation.” For instance, whenever capital improvements need to be made to the street for maintenance, capital works, or renewals, part of the standard procedure will be to include improvements to the pedestrian realm as part of this work. For only a small percentage increase in cost, this will build incremental improvements to the pedestrian environment throughout the city.

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

Everyone on the team was committed to solving the problem at hand, and recognized the need to collaborate with many players in order to make this work. To get a sense of the challenges they faced, several workshops were held with Council, staff, and community representatives, including public health officials, staff from engineering and public works, staff community planners, designers, and social planners, staff responsible for public transit, and advocates for elderly people and people with disabilities. In addition, the groups were taken out for a walk-about to actually experience the pedestrian environment in a variety of locations. This exercise opened a lot of eyes, providing an opportunity for end-users of all abilities to comment on the effectiveness of some of the designs that had been considered for this group.

The process also highlighted the need to question existing street standards and regulations - why are these here in the first place? Are they created for people, or for cars, trucks, and other automobiles? In many instances, the standards were out of scale for the particular context and for the intended goals of prioritizing pedestrian activity. It is important to critically question the rules to see if they are actually intended for the right audience.

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## PLANS RELATED TO PARKS, OPEN SPACE AND NATURAL AREAS

The long-term health and well-being of human communities is determined by the healthy operation of the world's ecosystems. As globalization and economic development continue to increase the standard of living in communities around the world, we must be aware of the associated impacts to our air, water, and soil and to the living systems of which we are part, and ensure we are not trading our long-term future for short-term gains. Functional Plans related to Parks and Recreation, or to Open Space and Natural Areas look at opportunities for outdoor recreation as well as ecosystem health. Parks and Recreation Plans typically analyze existing resources available to the community, and identify new assets needed to keep pace with community growth and change. This may involve different types of parks (such as Athletic Parks, Community Parks, or Dog Parks), greenways and trails, and recreation facilities. Plans for Open Space and Natural Areas focus more on spaces designated for ecological conservation, wildlife habitat protection, watercourse protection, management of hazardous areas, and view protection.

Healthy ecosystems provide a multitude of basic ecosystem services<sup>x</sup> to us, not least of which is a sense of connection to nature. This phenomenon has been termed “biophilia,” and written about extensively by authors such as E.O. Wilson, Richard Louv, and Timothy Beatley.<sup>xi</sup> Parks, open space and natural areas

**The availability of green space is associated with increased levels of social capital,<sup>45</sup> and exposure to nature reduces stress levels, anger and anxiety, and replaces these with feelings of pleasure.**

provide opportunities for recreation, contemplation and socializing. A community with nature present at a variety of scales contributes to the spirit of a place. This can include everything from treetop lichens and invertebrates to larger natural features that may help define a community. The availability of green space is associated with increased levels of social capital,<sup>45</sup> and exposure to nature reduces stress levels, anger and anxiety, and replaces these with feelings of pleasure.<sup>46</sup> Higher measures of green cover are also associated with increased frequency of walking to school, increased frequency of general walking trips, and lower body mass index (BMI).<sup>47</sup> <sup>48</sup> A recent study done for the BC Recreation and Parks Association found that parks and open space are strong predictors of active transportation in the region: “Adults residing in neighbourhoods with the highest number of parks and open space were between 1.5 and 2.5 times more likely to report a walk trip for a home-based discretionary trip, like shopping, recreation or dining out.”<sup>49</sup>

Exposing children to nature and play is an important element of childhood development. In 2010, a US survey across the country found that children between 8 – 18 years of age were spending an average of 7.5 hours a day using media: television, video games, music, and the Internet. Heavy media use was found to be correlated to poor grades and lower personal contentment.<sup>50</sup> Community design should support “free range kids” with places where children can climb trees, explore on the way to school, or dip their toes in a creek.

Exposure to nature is not limited to its visual qualities. The smells, sounds and tactile sensations of our surroundings can also connect us to place. For instance, the “smellscape” of a community imparts a unique signature: cherry blossoms or ponderosa pine, fallen leaves or the freshness following a rainfall.<sup>51</sup> Sounds can mark the change in seasons - there is something absolutely riveting about standing beneath a tree in blossom and hearing it literally buzz with pollinating bees. While limiting the impacts from incremental weather can help make the outdoors

x Ecosystem services are the benefits provided to humans from resources and processes supplied by the ecosystem. These include clean drinking water, the decomposition of wastes, crop pollination, greenhouse gas mitigation, and clean air. It also includes cultural benefits, such as aesthetically pleasing landscapes and opportunities for recreation.

xi E.O. Wilson originally introduced the term “biophilia” in his book by the same name in 1984. Richard Louv wrote “Last Child in the Woods: Saving our Children from Nature-Deficit Disorder” in 2005. In this book, Louv calls for the need to develop opportunities for children to play in natural settings, reporting that by the 1990s, the radius around the home where children were allowed to roam alone had shrunk to a ninth of what it had been in 1970. He coined the term Nature Deficit Disorder, referring to the human costs of alienation from nature. Timothy Beatley expanded on his ideas of Green Urbanism in his book “Biophilic Cities: Integrating Nature into Urban Design and Planning,” (2010) where he describes the essential elements of a city connected to nature.



### LEARNING FROM EXPERIENCE: BIRD-FRIENDLY TORONTO, ON

An estimated one million migratory birds die each year in Toronto from collisions with buildings. In an attempt to prevent the needless deaths of migratory birds in the city, Toronto released a set of bird-friendly development guidelines in 2007, which form a component of the City's Green Development Standards. The voluntary guidelines include a number of ways that new buildings can be designed to reduce collisions, including visual markers on the glass, reducing reflections through

the use of awnings and sunshades, and encouraging task lighting rather than overhead lighting in the evening. To support the guidelines, the City has also developed a "bird-friendly rating system" for new buildings, where buildings can gather points for different bird-friendly design elements. Once certified as Minimum, Preferred, or Excellent, buildings can be marketed as "bird-friendly." An extensive "lights-out" advertising campaign on subways, bus stops and recycling bins used the tagline "Kill the lights, save the birds."<sup>53</sup>

### LEARNING FROM EXPERIENCE: LA VILLE EN VERT, MONTREAL, QC

La Ville en Vert project is a coordinated effort between the Montreal Urban Ecology Centre and the Office municipal d'habitation de Montreal (OMHM) to create vegetative islands in low-income housing complexes throughout Montreal. This project is funded by the Government of Quebec's Green Fund as part of the 2006 - 2012 Climate Change Action Plan. The project will increase surface and accessibility of near-by green spaces in target neighbourhoods, increase Montreal's biodiversity, create alternative methods of greening and urban agriculture, reduce negative

health impacts of urban heat islands, and fulfill renters' needs while prioritizing the creation of networks of solidarity.

La Ville en Vert has two streams of projects, participatory and technical interventions. Currently there are 10 participatory projects in practice, which engage renters, facilities managers and other professionals through training, participatory design, and awareness activities. The thirty technical interventions completed to date include the installation of white roofs and the planting of trees, shrubs and climbing plants.<sup>54</sup>

**BEFORE**



**AFTER**



Photo Credit: La Ville en Vert

more comfortable, a certain amount of exposure can connect us to climate variations, from a fresh breeze on the face to the first strong rays of sun in early summer.

## PLANS RELATED TO FOOD SYSTEMS

Food systems are a crucial component of community health. Whether through traditional or non-traditional means, the ways in which food is produced, processed, transported, distributed, celebrated, and disposed of plays a key role in the health of community members. While agricultural planning has been a common local government practice for many years (with a focus primarily on roads, infrastructure, water, waste, and land use), the pressing concerns of sustainability are causing many municipalities to take a more proactive and creative approach to food security issues that address community resilience and liveability. Whether it be promoting a region’s artisanal food reputation in order to draw visitors, addressing crisis resilience through a more self-sufficient food system, bringing healthier food options to “food deserts” in low-income neighbourhoods, or drawing on the significant economic power of farming, planning for the success of the food and agriculture in a community is an important aspect of its health.<sup>55</sup>

Food security is defined as occurring when “all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.”<sup>xii</sup> Although food security is often taken for granted in developed urban communities, access to affordable and nutritious foods is not always available to all community members. In 2007 – 2008, 1.92 million people in Canada aged 12 or over lived in food-insecure households.<sup>56</sup> Nor is access to food always provided with geographic equity within communities. Lower-income neighbourhoods are often more likely to have low-nutrition food: in Edmonton, AB, a study reported that the city’s lowest income neighbourhoods are more than two times as likely to have a fast food

**In 2007 – 2008, 1.92 million people in Canada aged 12 or over lived in food-insecure households.**



Credit: HB Lanarc-Golder, 2012

outlet within a 5 or 10 minute walk when compared with the highest-income neighbourhoods. Emerging research suggests that introducing supermarkets into urban, low-income communities can improve dietary behaviours.<sup>57</sup>

With increasing globalization, many communities now rely on imported foods as they move away from traditional food systems in which local rural areas produce food for local consumption. Current global food systems are raising serious concerns over transportation emissions, loss of local employment, loss of genetic diversity, environmental degradation (soil, air, and water quality), human rights and safety, food safety, and the cost of food.<sup>58</sup> At the same time, local agricultural lands are being lost to urban development and sprawl which makes it more challenging for communities to become resilient and self-sufficient. The 2010 UN report on *The Right to Food* acknowledges the environmental and human toll associated with subsidizing large-scale food production yet identifies the need for a 70% increase in food production by 2050 to meet projected population growth.<sup>59</sup>

xii This definition was adopted by the World Health Organization at the World Food Summit in 1996. Food security rests on food availability; food access; and food use.

Managing growth and protecting agricultural land is emerging as a priority response to this trend. Possible approaches at the local level include:

- Creating urban containment boundaries to limit the expansion of the urban area onto undeveloped lands;
- Building new communities that are higher density, transit oriented, mixed-use, walkable and liveable;
- Defining areas where infill and intensification are possible and desirable and encourage new growth in these existing areas;
- Protecting agricultural land specifically for agriculture through local zoning regulations (in the case of British Columbia’s Agricultural Land Reserve , this is supported by provincial legislation); and
- Integrating urban residential and farm uses at the urban/peri-urban interface.<sup>60</sup>

Providing residents with an opportunity to produce their own food, whether in a backyard, rooftop, allotment, or community garden, is a relatively

simple and effective way to promote community building, physical activity and nutrition. Community gardens facilitate social networks and friendships;<sup>61</sup> they create a sense of belonging, friendship, and generosity among gardeners and a sense of community in the area.<sup>62</sup> Gardens increase physical activity levels, and provide improved access to healthy food.<sup>63</sup> In one study, 35% of gardeners self-reported improved diets from their involvement in gardening; 31% reported more socializing, while 29% reported helping others. Overall, 13% reported an improved neighbourhood from gardening.<sup>64</sup> In addition, community gardens can also reduce crime. Turning an under-developed lot into a community garden reduced crime inside surrounding buildings by 30% immediately, and then 49% and 56% in the subsequent two years.<sup>65</sup>

**Turning an under-developed lot into a community garden reduced crime inside surrounding buildings by 30% immediately, and then 49% and 56% in the subsequent two years.**

### LEARNING FROM EXPERIENCE: ROOFTOP GARDEN PROJECT, MONTREAL, QC

The Rooftop Garden Project is run as a partnership between two Montreal organizations, Alternatives, an international development organization; and a local food distribution organization, Santropol Roulant. The project aims to “make widespread rooftop gardening a reality in Montreal and around the world.” It has increased food security and urban greening by creating a network of roof top and balcony gardens throughout Montreal in partnership with local organizations and institutions, such as Entre Maman and Concordia University.



Gardens use a combination of hydroponic cultivation, permaculture, organic agriculture and collective gardening to grow fruits and vegetables. Other services that the Rooftop Garden Project offers are community education, training, “ready-to-grow” kits, and space to host public events in the gardens.<sup>67</sup>

## LEARNING FROM EXPERIENCE: FOOD HUB, TORONTO, ON

Food hubs and precincts are centrally-located facilities that bring together the full spectrum of land uses and programs to support sustainable urban and regional food systems. In any food hub or precinct, storage and processing space would need to be built to meet the needs and demands of the local agriculture, resident, and food industry needs.



In Toronto, The Stop Community Food Centre is a good example of a functioning Food Hub. The Stop is a community operated facility that has urban agriculture, education, social services, waste recovery, and farmer direct marketing functions. Specific program areas include:

- community gardens;
- permanent indoor farmers market;
- high quality teaching facilities including a community kitchen and outdoor wood fired oven;
- artist live work studios;
- multiple education programs for learners of all ages;
- food Bank and drop-in centre; and
- community advocacy and civic engagement resources.<sup>66</sup>

# In their own words

## Project Description:

Vancouver Coastal Health (VCH) introduced its Community Food Action Initiative (CFAI) in 2005 with a focus on improving food security in VCH communities, particularly for vulnerable populations. Using a supported community-led approach, VCH divided their service region geographically, and asked each of eight communities how they would like to target this topic. Each community undertook an environmental scan, a food system assessment and gap analysis, and a three-year action plan. Structural supports and linkages are provided by a VCH Regional Coordinator to localized community coordinators and each community is provided with a modest annual allotment of funding of \$15,000 – \$45,000, depending on the size of the community.

Regionally, the projects are linked through bi-monthly meetings where issues, needs and opportunities for collaboration are identified and coordinated. This approach has worked well to reach project goals to increase access to local healthy food, build community capacity, increase the development and use of relevant policy, and increase food knowledge and skills. An evaluation of the project found 86% of survey respondents reported increased food skills have helped them to eat better and/or live a healthier lifestyle. With each year, interest in food

**Interviewee:** Claire Gram, Population Health Policy Consultant, Vancouver Coastal Health

**Community name:** Eight communities within Vancouver Coastal Health's service region: Vancouver, Richmond, Sea-to-Sky, Sunshine Coast, Powell River, Bella Coola, Bella Bella, and North Shore.

**Approximate population size:** The communities involved are a mix of community sizes and types, from metropolitan to rural and remote.

**Key Collaborators:** Community organizations, municipalities, First Nations, community groups, individuals, funders, schools, nutritionists, community developers, farmers, media

**Phase of the Planning Process/Stage of Engagement:** Food Systems/Functional Plan

**Exploring alternative approaches to delivering fresh food in remote communities such as Bella Coola can add much needed variety to community food resources.**

security-related policy went up, as did the amount of money leveraged by the initiatives. From the original \$1.2 million in funding, the CFAI projects leveraged \$1.13 million in funds (including grants, fundraising, donations and membership fees, volunteer work, and in-kind and other contributions).

One of the communities, Bella Coola, undertook a fruit tree project initiative, resulting in approximately one tonne of fruit from otherwise under- or un-picked fruit trees distributed annually to vulnerable populations.

**One of the communities, Bella Coola, undertook a fruit tree project initiative, resulting in approximately one tonne of fruit from otherwise under- or un-picked fruit trees distributed annually to vulnerable populations.**



Exploring alternative approaches to delivering fresh food in remote communities such as Bella Coola can add much needed variety to community food resources. The community coordinator in Bella Coola also connected with other communities and presented on the need to make changes to BC's Meat Inspection Regulation (2004), which prevented small scale livestock farmers from slaughtering their own animals. A new graduated licensing approach was subsequently introduced in 2010 which now includes two new levels of slaughter operation for direct producer sales to local consumers of between one and 25 animals (Retail Sales) or between one and 10 animals (Direct Sales). Bella Coola was eligible for the new licensing, resulting in opportunities for a source of local meat through pig farming.<sup>68</sup>

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

Although it is a good start to invite health authorities into planning processes at a draft review stage, it's a bit late to be entirely effective. It is far better to get the health authority in more proactively. If health can get defined as one of the issues earlier on in the process, such as in the scoping of OCP topics,

it creates a platform to allow the health authority to speak. Otherwise, health authorities are often just one of a large number of stakeholders, with nothing to distinguish them from any other stakeholder in terms of the process. Through developing a MOU as a formal partner, and getting in early, there is more weight given to the perspective of the health element. This also allows for more connections with other parts of the health profession, such as General Practitioners. Of course we [VCH] want to influence policy, but we also want to build more collaborative relationships, so that people know each other and can just pick up the phone and make a call.

Many local governments are using a sustainability lens in their planning and approach. We would like to see that extended to a sustainability and explicit health lens. Though many of the interventions that support sustainability are similar to those that support health, and many sustainability frameworks implicitly include health, the leveraging effect using both frameworks explicitly in terms of public engagement and understanding the cost implications of a failure to act, can add considerable weight to the change agenda.

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## 4.2. Using Land Use Development Controls

The patterns of modern built environments are to a large extent shaped and maintained by land use development controls. Zoning bylaws, off-street parking regulations and street standards play a very significant role in influencing the extent to which the built environment promotes or inhibits mobility and accessibility, particularly with respect to physical activity.

Achieving health oriented goals of the Community Plan may require communities to re-align their land development regulations. Preparing and revising land use controls is historically a technical exercise that has been left to planners, engineers and lawyers. That may, in part, account for the fact that human and ecological health impacts have often not been considered. There is now an opportunity to bring the public health and environmental disciplines to the table in reviewing and preparing land use controls. For example, traffic accident statistics can be interpreted by public health professionals with regard to creating safer streets for pedestrians; parking standards can be reviewed by health professionals with regard to their impact on active mobility choices; and zoning standards can be reviewed with regard to how they may indirectly promote physical activity by increasing density, reducing building setbacks, and mixing uses.

### 4.2.1. Zoning

The relevance of land use zoning<sup>xiii</sup> to public health lies in the genesis of zoning as a tool to promote public health, safety, and welfare and also to the numerous - though unintended - negative health effects caused, at least in part, by the low density, segregated use urban patterns it has created. Car- dependent communities

xiii The term “zoning” is intended to include subdivision, development permit guidelines, landscaping, and any related “urban form” influencing bylaws.

created by extensive single-use, low-density land use have important implications for health: people are less active because they walk less, vehicle exhaust degrades air quality, motor vehicle injuries increase, and mental health and social capital are adversely affected.<sup>69</sup>

In 1926 in *Village of Euclid vs. Ambler Realty Company* (1926) the U.S. Supreme Court upheld the validity of an ordinance to separate land uses into zone districts, specifying permitted and excluded uses, prescribing minimum lot, area, and bulk requirements for all permitted uses. Land uses are separated and sorted into groups based upon their perceived compatibility

**Car-dependent communities created by extensive single-use, low-density land use have important implications for health: people are less active because they walk less, vehicle exhaust degrades air quality, motor vehicle injuries increase, and mental health and social capital are adversely affected.**

in order to promote public “health, safety, and welfare.” This approach to regulating land use, referred to as “Euclidian” zoning, was widely adopted in Canada and today remains the default base zoning approach in most cities, towns, and counties in the US<sup>70</sup> and Canada.<sup>71</sup> The focus of Euclidian based codes on density maximums, separation of uses and building setbacks has often resulted in the creation of relatively low density urban environments with widely scattered and segregated land uses, which are designed to be conveniently served by the automobile.

Alternative zoning frameworks have evolved to address shortcomings inherent in the Euclidian scheme: for example, Comprehensive Development Plans in British Columbia, typically associated with large scale, unified land development proposals, have afforded communities more flexibility and control in land use patterns, providing the opportunity for a greater mix of land uses.<sup>72</sup> Performance Zoning draws on an environmental carrying capacity model whereby the type and level of development must fit the unique characteristics of the individual property.<sup>73</sup> Form-based development ordinances, popularly represented by the SmartCode<sup>xiv</sup> and advanced by leaders within the New Urbanist movement, focus heavily on the public realm and the

xiv The SmartCode is a unified development ordinance originally developed by Andres Duany and Elizabeth Plater—Zyberk. Retrieved January 6, 2012 from SmartCode Central Web site: <http://www.smartcodecentral.org>

type of urban form necessary to create welcoming public spaces and walkable neighbourhoods. The zoning bylaws of many Canadian communities today represent a hybrid approach that has evolved over time in response to changing social demands and environmental constraints.

Housing diversity and accessibility is influenced by zoning bylaws to the extent that zoning is inherently exclusionary. Significant portions of any Canadian town or City are dominated by single-family residential uses, which frequently are the only major type of principal use permitted. Many communities still restrict accessory dwellings or secondary suites in many of their zone districts. This creates an artificial restriction on the supply and availability of housing, which reduces affordability and access. Multi-unit zoning can be limited and rezoning applications for new multi unit zoning is often met with fierce resistance.

Zoning can also be used to limit the proliferation of food that can be harmful, such as fast foods. This can be accomplished in various ways, including:

- banning fast food outlets and/or drive-through service (Concord, MA);
- banning “formula” restaurants (Calistoga, CA);
- regulating the placement of fast food or formula restaurants in certain areas or districts (San Francisco, CA);
- regulating the number of fast food restaurants using quotas (Berkeley, CA);
- regulating the density of fast food outlets (Warner, NH); and
- regulating the distances from fast food restaurants from other uses, such as schools, churches, and hospitals (Detroit, MI).<sup>74</sup>



#### **LEARNING FROM EXPERIENCE: URBAN FARM ZONING, PARKSVILLE, BC**

The City of Parksville, BC, passed an amendment to the zoning bylaw to permit commercial urban food gardens and wholesale marketing of goods grown within the town boundaries. The definition of “urban

food garden” means the use of land on a limited scale (up to 20% of the parcel area) for the growing, harvesting and wholesaling of fruits, vegetables and edible plants. Urban food gardens allow the use of non-agricultural lands, such as residential yards and vacant lots for the growing and harvesting of fruits and vegetables that may be exchanged or sold for profit. Under previous regulations, residents were allowed to have a fruit and vegetable garden for their own consumption but did not permit or encourage the redistribution of the harvest. The intention of this bylaw is to encourage and permit entrepreneurial urban agriculture.<sup>77</sup>

### **LEARNING FROM EXPERIENCE: DENSITY BONUSING, PORT ALBERNI, BC**

In 2008, the City of Port Alberni undertook a community assessment to analyze the city's interests, priorities, and long term strategies. The assessment revealed active interest in community health, local food production, renewable energy, and long-term sustainability planning among the city's 18,000 inhabitants. This resulted in a Memorandum of Understanding between the City and the International Centre for Sustainable Cities regarding Port Alberni's role in becoming a member of the PLUS Network (Partners for Long Term Urban Sustainability).<sup>75</sup> The city has since held a sustainability forum, participated in the World Healthy Living Challenge with ActNow BC, and continued to hold annual Health and Wellness Fairs.

In terms of the built environment, the City has drawn on density

bonus and mixed-use zoning in the Northport Downtown Core Commercial District in order to support more sustainable development.<sup>76</sup> This bylaw allows increased density under the following conditions:

- development contains mixed uses (residential and commercial);
- a minimum of 75% of parking requirements are provided underground to limit above ground sprawl;
- a minimum of 10% of residential units are accessible suites to provide for those with physical disabilities;
- elevator access is provided to all floors to ensure accessibility;
- a minimum of 10% of residential units are affordable suites to provide for mixed tenures; and
- a common/amenity room is provided for residents.

### 4.2.2. Parking

The separated land use patterns created and enforced by Euclidian-oriented zoning bylaws have been reinforced by the development of minimum off-street parking requirements, which communities started to require in the 1930s in response to rising automobile ownership.<sup>78</sup> City planners have used “peak parking” demand observations summarized in the ITE’s “Parking Generation” manual,<sup>xv</sup> as well as borrowed minimum parking standards from neighbouring jurisdictions as a basis for local standards. The use of these observations has been criticized because of the underlying assumptions that parking will be “free” for the user; that no other modes of transportation -such as cycling, walking and public transit—will be used; that there must be sufficient free parking to meet peak demand; and that published “universal” data can be applied to unique local conditions.<sup>79</sup> As a result, as much as 30 to 40% of urban land is consumed by parking spaces.<sup>80</sup> These spaces proliferate because they are for the most part “free,” meaning we generally

don’t pay for them as users, but rather have this cost hidden within all our other roles – as consumers, investors, workers, residents, and taxpayers.<sup>81</sup> This, in turn, decreases urban densities while increasing sprawl, creates longer driving distances between destinations, and reinforces the belief that trips must be made by private automobile.

The uncritical and widely spread use of off-street parking minimums have served to increase the percentage of land devoted to urban “dead space,” decrease urban densities, promote single or limited land use precincts, deprive the urban realm with automobile focused parking facilities (typically located between streets and buildings) and generally promote automobile use over active forms of transportation.<sup>82</sup> In contrast, eliminating parking minimums and charging market pricing for parking allows for increased density, reduced development and housing costs, opportunities for car-free housing and developments, and encourages developers to supply spaces only where revenue will cover costs.<sup>83</sup>

xv These ubiquitous requirements have their support and apparent legitimacy in the widely used and cited Institute of Transportation Engineer’s “Parking Generation” manual (Institute of Transportation Engineers, 2010), now in its fourth edition.

#### **LEARNING FROM EXPERIENCE: INTEGRATED PARKING STRATEGY, CALGARY, AB**

As part of its 2006 Land Use Bylaw review, the City of Calgary adopted an integrated parking strategy designed to employ transportation demand management and encourage more efficient use of land and transportation services. The strategy includes a variety of parking management approaches, including:

- reduced on-street parking during peak traffic hours;
- increased on-street parking rates;
- reserved parking permits for peripheral C-Train stations;
- re-chargeable SmartPay parking card system for meters; and
- decreased maximum parking time limits in the downtown core.<sup>84</sup>

### LEARNING FROM EXPERIENCE: REDUCED PARKING REQUIREMENTS, VICTORIA, BC

Dockside Green is a mixed-use residential and commercial development which has been awarded two residential LEED Platinum ratings. The project was innovative from the outset, with an overall objective to embrace energy efficiency and place emphasis on transit.

While Dockside Green has delivered numerous environmental features, including a biomass gasification District Energy System and exhaust

air energy (heat) recovery, of significance here is its approach to minimizing the use of the private vehicle. Minimum parking standards were reduced to one space per dwelling unit across the entire development with no spaces required for affordable units. The reduced parking standards have worked effectively and are complemented by close proximity to public transit, a car share scheme and secure bike storage. In the future, this provision will be strengthened by a ‘mini-transit’ vehicle that will connect downtown and Dockside Green.<sup>85</sup>

#### 4.2.3. Street Standards

The design of streets and their network patterns has an impact on quality of life and health. Typical suburban development patterns feature curvilinear streets and cul-de-sacs. This pattern is sized and scaled for moving vehicles and offers limited connectivity, and many streets frequently do not have sidewalks.<sup>86</sup> Suburban dwellers spend considerable time in their cars; as distances between their daily activities increase, so does travelling time. Active forms of transportation are used less frequently and overall human health declines.

Highway standards developed by Provincial transportation ministries or departments have typically been used as a template for municipal street standards, with a primary focus being the

**Narrow streets are more pedestrian friendly than their wider counterparts, cost less to build and maintain, reduce storm water runoff, decrease utility infrastructure costs, reduce traffic speed and provide more room for shade trees. They also increase the likelihood of neighbours getting to know each other.**

convenience and “safe” movement of automobiles. Residential street standards originating in the 1960s typically called for a 50 to 60 foot right-of-way with 34 to 36 feet of curb to curb pavement.<sup>87</sup> In addition to consuming lots of land and adding excessive amounts of impervious surfaces, these street standards also encourage unsafe speeds.<sup>88</sup> Communities are responding to these problems by adopting new standards for skinnier streets, as narrow as 22 feet wide if they serve neighbourhoods that produce low traffic volumes (fewer than fifty homes or five hundred daily trips.)<sup>89</sup> Narrower streets have also proved to be safer: a study showed that a typical 36-foot wide residential street had 1.21 collisions per

mile per year, whereas a 24-foot side street had 0.32 collisions per mile per year.<sup>90</sup>

Narrow streets are more pedestrian friendly than their wider counterparts, cost less to build and

maintain, reduce storm water runoff, decrease utility infrastructure costs, reduce traffic speed and provide more room for shade trees. They also increase the likelihood of neighbours getting to know each other.<sup>91</sup> However, there are some barriers related to narrow roads: they can cause impacts to municipal services such as increased costs for snow removal, reduce street parking options, and conflict with minimum access requirements for fire protection vehicles.

Many communities across Canada today still have local street standards of as wide as 36 feet, sufficient width for the passage of two way traffic plus parking on both sides. These standards serve to further separate land uses and reduce density. In many communities sidewalks were either not constructed at all or constructed on only one side of a local street. In Ontario, for example, local street standards must be consistent with Provincial standards, which remain automobile-oriented.

#### **LEARNING FROM EXPERIENCE: SKINNY STREETS, OTTAWA, ON**

The Pineglade Project in suburban Ottawa, ON is an example where planners and developers were able to collaborate with engineers and emergency services to create a subdivision designed with alternative design standards while still meeting the needs for all municipal services.

When compared to conventional subdivision development projects, the Pineglade Project has a 20% reduction in right of way width, 30% reduction in boulevard width, and a 6% reduction in pavement width. The road reductions paired with other property related design standards resulted in \$8,500 reduction in cost per property, savings that we passed on to the home buyers.<sup>92</sup>



Photo Credit: healthiermi on Flickr

#### **LEARNING FROM EXPERIENCE: GREEN ALLEYS, CHICAGO, IL**

The City of Chicago has prepared a “Green Alley Handbook,” to help support the retrofit of its 1900 miles of alleys. Tools include permeable paving, rain gardens and rain barrels, use of lighter paving materials to reduce the albedo effect arising from heat absorption of dark pavement, recycled materials such as concrete aggregate and recycled tire rubber, and dark sky-friendly lighting fixtures. The program began as a pilot in 2006, with more than 100 green alleys installed by 2010.<sup>93</sup>

# In their own words

## Project Description:

The Montreal Public Health and Social Agency has developed a Walkability Audit tool (audit de potentiel piétonnier actif et sécuritaire—PPAS) to improve the walkability of built up urban areas. A need was identified to refine urban walkability indices to address mature cities, looking at specific parameters for: infrastructure supportive of active transportation; street lights and crime prevention street design; secure and safe mid-block crossings and intersection crosswalks; good neighbourhood design and accessible open spaces; green infrastructure; easy access to public transit; and supportive and comfortable pedestrian street furniture and environments.

It takes several years to see on-the-ground results and transformations in medium/high residential density and mixed-use neighbourhoods. Cities can change their zoning bylaws, but without redevelopment, the expected improvements in walkability and ultimately improved population health take time to be achieved. Information obtained through application of the Walkability Audit (PPAS) identifies on-street deficiencies in the built environment that can be remedied in short and medium-term action plans and helps mobilize municipal decision-makers and community groups to implement actions.

**Interviewee:** Sophie Paquin, Planning and Public Health Advisor, Public Health Agency of Montreal

**Community name:** Metropolitan Montreal (City of Montreal and satellite cities on the island of Montreal).

**Approximate population size:** City of Montreal 1.6 million (2006); Metropolitan Montreal: 3.6 million (2006)

**Key Collaborators:** Montreal Public Health and Social Agency (Direction de santé publique de l'agence de la santé et des services sociaux de Montréal)

**Phase of the Planning Process/Stage of Engagement:** Community Plans, Development Controls, Site Design & Development, Capital Spending



## The Walkability Audit (PPS) is an incredibly useful tool to assess street and intersection walkability in mature metropolitan built environments.

Montreal Public Health and Social Agency have tested the tool in several Montreal neighbourhoods to ensure it works and to encourage its use in the future.

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

The Walkability Audit (PPS) is an incredibly useful tool to assess street and intersection walkability in mature metropolitan built environments. It addresses the uniqueness of surrounding neighbourhoods while being user-friendly, providing accurate information for NGOs and other community-based organization to initiate a dialogue with professionals and politicians of the municipality. In addition, local administration can use the audit tool and understand the active transportation problems in the area. Often, active transportation assets and weaknesses (SWOT analysis) are not integrated as part of a preliminary study while developing municipal/official development plans.

“Evidence based decision” resources are frequently required by municipal decision-makers. The Walkability Audit (PPS) is a standardized, scientifically proven tool which aligns data collection for a broad range of variables. The audit parameters may be transferred into a Geographic Information System (GIS) as cartography layers. The accuracy of these indicators allows for developing design guidelines, zoning provisions, plan criteria, and specifications responding to particular needs.

The Walkability Audit (PPAS) addresses detailed street characteristics using measures from the following six broad categories within street segments:

- Distribution of urban land uses and type of buildings;
- Quality of infrastructure for active transportation and conditions of walking surfaces and connectivity for pedestrians;
- Characteristics of traffic lanes and the design of intersections;
- Traffic management, traffic calming and crossing conditions at intersections;
- Types of infrastructure and equipment available for public transport and cycling;
- Safety and aesthetics of public space and buildings, such as trees.

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### 4.3. Site Design and Development

Design at the site level—from a single lot commercial use to a large mixed-use town centre—is the physical manifestation of a community’s vision, plan policies, zoning bylaws, parking requirements, street standards, and related standards regulations and guidelines.

Most communities require some level of professional planning review to ensure that the design proposal is consistent with regulations and guidelines. In many cases an opportunity exists through a referral process or a technical or design committee review for public health professional input and advice. Choices made in site design can create places where people will want to walk or ride their bikes, where it is safe and easy for people of all ages and mobility levels to cross the street or explore new areas, where design features provide weather protection, and where interactions between people are facilitated. Environmental health related concerns such as stormwater runoff can be addressed with low impact development approaches that reduce impervious surfaces and maintain water balance.<sup>94</sup> Site design that enhances the many dimensions of human health and community well-being is both an art and a science; it is about more than merely satisfying the minimum requirements;—it is the art of pulling apparently disparate elements together into a unified whole. Design professionals can best achieve this through working in tandem with experts in the health and environmental disciplines.

#### 4.3.1. Development Patterns

The application of development standards over time and across a city and region creates a particular development pattern that may range from a dispersed, low density, single use oriented pattern to a multi-nodal, high density, mixed use pattern, with all variations in between. Development patterns, urban design and community health are integrally linked. The ways in which communities are physically organized and designed directly and indirectly impacts the health of community members.

**One study found net density thresholds of 53+ residential units per hectare associated with a higher likelihood of walking than in neighbourhoods with lower density.**

Communities with wide-spread sprawling development encourage vehicle use and vehicle-oriented design which have a multitude of negative impacts on community health:

- increased greenhouse gas emissions and air pollution;
- increased stormwater runoff and water and soil pollution;
- increased risk of danger to pedestrians, cyclists, and drivers;
- decreased options for active or alternative transportation;
- decreased opportunities and safety for outdoor physical activity;
- limited accessibility and mobility for non-drivers and a decrease in social inequity;
- reduced amounts of affordable accommodations close to community resources;
- decreased opportunities for social interaction and a detraction from overall social well-being;
- increased commuting time; and
- reduced neighbourhood safety as a result of limiting the amount of eyes on the street.<sup>95</sup>

To the contrary, communities that are well designed in terms of land use mix, density, and connectivity can contribute to positive community health benefits. Areas with a high density of housing and employment can better support the location of a variety of services and other destinations within walking and/or cycling distance of residents and so encourage active transportation. Residential density (units/area) generally has significant positive associations with walking frequency, walking distance, and moderate physical activity. One study found net density thresholds of 53+ residential units per hectare associated with a higher likelihood of walking than in neighbourhoods with lower density.<sup>96</sup> Another study reported distance thresholds of proximity of < 440m to a grocery store or market, and < 262m to eating or drinking establishments as

being significantly associated with walking sufficiently to meet health recommendations.<sup>97</sup>

In addition to density and land use mix, high street connectivity provides directness and many alternative routes between destinations, thereby reducing route distance, increasing non-motorized route options, and dispersing vehicle traffic throughout the travel network. Intersection density (intersections per area) has significant positive associations with both walking frequency and distance walked;<sup>98</sup> studies suggest that intersection density needs to reach about 50 intersections per km<sup>2</sup> before pedestrian travel becomes more commonplace.<sup>99</sup>

A study performed by the Canada Mortgage and Housing Corporation in eight neighbourhoods across Calgary, Toronto, and Montreal concluded that the built form of communities influenced the number of vehicle kilometres travelled as well as the amount of active transportation.<sup>100</sup> Design features such as compact and mixed land use, high quality public realms, pedestrian and cyclist connectivity, residential density, and a variety of housing options were shown to influence healthy behaviours such as reduced car use, increased walking and cycling, increased transit use, resident satisfaction and community attachment, use of public open/green spaces, and social interaction among community members and neighbours.

At the regional and community levels, land use and design features for greater community health can include<sup>101</sup> (but are by no means limited to):

- zoning for mixed-use, high density nodes of residential, commercial, office, and community resources/amenities that are easily accessible by pedestrians, cyclists, and transit users;
- regional greenways and interconnected urban green spaces that provide safe and connected routes for pedestrian/cyclists while preserving

ecosystem health and wildlife habitat;

- policies to encourage infill or brownfield development in existing communities and discourage sprawling or greenfield development in undeveloped areas;
- policies to protect agricultural lands, watersheds, and urban/non-urban forests;
- policies for affordable housing options within higher density, mixed-use areas;
- narrower streets and enhanced public realms (i.e., street furniture, landscaping and street trees, public spaces, interesting and active street fronts);
- connected and integrated regional transit systems and cycling networks; and
- implementation of CPTED (Crime Prevention Through Environmental Design) design principles.

#### 4.3.2. Buildings

The overall health and wellness of a community is influenced by major external factors, but also on the health of its individual members. This can include individuals' physical, emotional, spiritual, social, economic, cultural, intellectual, occupational, climate, and environmental wellness.<sup>102</sup> In terms of environmental wellness, health can be influenced by

the resilience of ecosystems, sustainable land use planning, and the design of buildings themselves. While often taken for granted, buildings can have a strong influence on personal health, given that we spend a large portion of our time inside: on average, Canadians spend about 90% of their time indoors (of the remaining 10%, half is spent in vehicles).<sup>103</sup> Indoor levels of air pollutants may be two to five times higher, and occasionally more than 100 times higher, than outdoor levels; much of this is attributed to off-gassing from materials and products within the building, as well as poor ventilation.<sup>104</sup>

In addition to direct relationships with human health, the way we design and build our structures have

**A study performed by the Canada Mortgage and Housing Corporation in eight neighbourhoods across Calgary, Toronto, and Montreal concluded that the built form of communities influenced the number of vehicle kilometres travelled as well as the amount of active transportation.**

# In their own words

## Project Description:

As one of the fastest growing municipalities in Canada, Brampton has been experiencing enormous growth in recent years. In 2004 alone, there were roughly 12,000 building permit applications. Attention has started to shift from “greenfield” development, to infill and intensification and transit-oriented development. Greenfield projects are also improving in their quality; there are alternatives to subdivision projects, where new developments have more definition with edges, town centres, and other design elements that contribute to a sense of place and liveability.

Collaborations between different departments—such as policy planning, development, heritage, and urban design—have become more commonplace, resulting in a more comprehensive examination of policy and development process improvements, including development permit applications.

Working with the Region of Peel Public Health unit has furthered these collaborations, bringing the credibility that is associated with the medical profession into the planning and design world. Peel Health has contributed useful public health evidence that supports planning goals such as more walkable, complete communities. They have provided feedback on plans such as those for Mt. Pleasant Village, a new “urban transit village” in Brampton based on transit

**Interviewee:** Alex Taranu, Manager, Urban Design, City of Brampton

**Community name:** Brampton, ON

**Approximate population size:** 434, 000 (2006)

**Key Collaborators:** Region of Peel Public Health, municipal planners, urban designers, heritage planners

**Phase of the Planning Process/Stage of Engagement:** Community Plans; Development Controls; Site Design & Development



and active transportation. The Village includes an elementary school, public library, public square and intermodal transit connection to the Mount Pleasant GO transit station, making it easier for residents to walk, bicycle or use transit to get around. Alternative design standards have allowed for narrow streets, reduced setbacks and laneways.

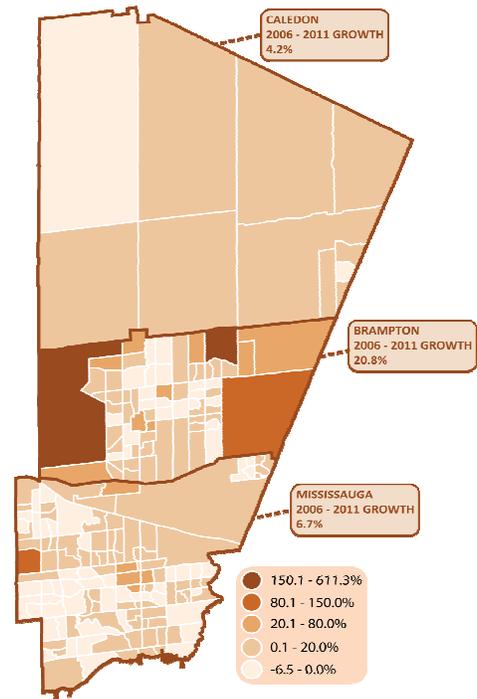
What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?

Design influences have changed over the last decade, from being motivated by “good” design, to “sustainable” design, and most recently, “healthy” design. All of these motivators are important, and compatible. Good urban design should be both healthy for the planet and healthy for people.

**Wide roads facilitate high traffic speeds that act as both fast and slow killers—from accidents and pollution, respectively.**

Brampton's streetscape is far from a desirable "complete streets" status. Wide roads facilitate high traffic speeds that act as both fast and slow killers—from accidents and pollution, respectively. One of the challenges to changing this is provincial legislation, such as bylaws on required intersection width. Gaining top-down support from upper levels of government as well as municipal Council can help push through changes necessary to create healthier communities.

### PEEL POPULATION GROWTH BY CENSUS TRACT 2006-2011



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impacts on ecosystem health. Construction debris contributes to the amount of municipal solid waste requiring appropriate disposal (some of which can be recycled or reused). Impervious surfaces such as pavement or roofs prohibit rainwater from soaking into the ground, and channel pollutants and sediments into surface water. The construction and operation of buildings consumes over a third of the world's energy and 40% of all the mined resources;<sup>105</sup> buildings account for nearly 27% of GHG emissions in Canada.<sup>106</sup> Buildings also contribute to the heat island effect, an increase in the mean temperature of a built up area beyond that of its surroundings.

**The construction and operation of buildings consumes over a third of the world's energy and 40% of all the mined resources**

Heat islands can increase summertime peak energy demand, air conditioning costs, air pollution and greenhouse gas emissions, and an increase in heat-related illness and mortality.<sup>107</sup>

Green and healthy building can mean:

- Consideration of building siting in order to avoid damaging natural resources or environmentally sensitive areas, and to encourage active living through close proximity to nearby amenities and transit;
- including methods for reducing water use and improving water quality, such as water efficient fixtures and pesticide-free landscaping;
- using non-toxic finishes and materials to improve air quality, coupled with natural ventilation;
- switching to renewable energy sources, using geothermal heating, solar electric or solar thermal, and using lighting systems and HVAC systems that are energy efficient;
- providing daylight and views of the outdoors, reducing electricity use, eye strain, headaches, seasonal affective disorder, and general stress;
- sourcing construction products locally and/or using sustainable materials, with consideration given to how the materials can be re-used, recycled or safely disposed of in the event of

renovation or demolition; and

- providing appropriate recycling and composting facilities or storage areas in the design to make it easy for building occupants to make better choices for waste disposal.<sup>108</sup>

#### 4.4. Capital Spending and Public Facility Siting

Ultimately, the extent to which we achieve our plans for healthy communities is about our ability and willingness to pay the financial costs: how much of the public purse is spent on infrastructure such as active transportation facilities that support active living and healthy ecosystems; on building and maintaining public places that foster community and social development; and in acquiring and developing parks and trail systems. It is often at the point of budget decisions that plan objectives fail to be implemented. It is here that planners can harness the collaborative power of the alliances they have created across disciplines and throughout the planning process to assert influence on capital spending budgets to fully achieve the potential of creating healthy communities. In addition to projects funded at the municipal level, there are also opportunities for leveraging municipal funding with senior level funding, in cost-sharing initiatives.

It is important to note that communities have increasingly forgone the responsibility to create great public realms. A number of the new public realms today are created via private development schemes, whereby the local government role is left to setting minimum standards and reviewing proposals. Too often, design of the most critical elements of the public realm, streets, for example, are left to technicians who are following rules established or influenced by Provincial standards (such as those of the Ontario Municipal Act) or U.S. based Federal Highway Administration highway standards that have crept over the border as an easy reference source. Municipalities can have greater success in using the public realm in the form of parks and streetscapes to create or recreate great public realms. These improvements can act as catalysts for private sector development.

## LEARNING FROM EXPERIENCE: SIMON FRASER UNIVERCITY CHILDCARE, BURNABY, BC

The UniverCity Childcare Building takes an exemplary approach to green building methods. It is the first building in Canada to meet the Living Building Challenge (LBC), a tool created by the Cascadia Green Building Council. The LBC analyzes six categories: site, materials, energy, water, indoor quality, beauty and inspiration, which make the tool both objective and subjective in its assessment.

The building is located within the Simon Fraser University 'UniverCity' sustainable community on Burnaby Mountain and harnesses technology and design features which achieve net zero energy, net zero water and the use of locally sourced materials. Net zero energy has been largely achieved through connection to the district energy utility and by renting the roof for a solar installation. The outdoor play space has been designed to provide a wide range of play opportunities encouraging



UniverCity Childcare Centre

physical, cognitive, emotional and social development in the children who use it. The building is free from toxic materials and costs less to construct than typical childcare facilities. This makes the development simultaneously environmentally and economically sustainable. The project was led by the Simon Fraser University (SFU) Community Trust in partnership with the SFU Faculty of Early Childhood education and the SFU Childcare Society.<sup>109</sup>

Photo Credit: Simon Fraser UniverCity

In collaboration with innovators in other disciplines, of health, transportation, landscape architecture, and environmental science, planners can bring back the art of creating great public spaces that benefit from thoughtful design with careful attention to detail.

The second component of this section, public facility siting, is emphasized in recognition of the frequent “hit and miss” nature of siting public facilities that fails to consider ways to maximize their positive influence on

creating healthy communities with easily accessible public facilities for the entire citizenry. The landscape is littered with town halls sited beyond accessible transit facilities, schools on large tracts of land on the outskirts of town to which no teenager can safely ride a bicycle, and service centers that fail to enhance the public realm. School boards, library districts and provincial governments will need to be brought into the collaborative enterprise of creating healthy communities in order to address this challenge.



### **LEARNING FROM EXPERIENCE: ACTIVE TRANSPORTATION FUNDING, EDMONTON, AB**

The City of Edmonton has taken a robust approach to driving forward the City's Active Transportation Policy and has committed to an increase in spending on projects that support active modes. In 2009, Council endorsed a plan to spend \$22 million over the next three years on projects that encourage active transportation. The amount works out to about 1.5% of the

transportation department's capital budget. Councillors also recommended increasing this percentage to 5% of the department's budget between 2012 and 2022.<sup>xvi</sup> As of 2012, the amount had been increased to \$30 million. Projects include dedicated bike lanes, the installation of bike racks and the increase of multi-use trails. The increase in budget demonstrates a commitment on behalf of the City of Edmonton to emphasize active modes of transport. The increased funding will support the Curb Ramp Program along with the Sidewalk Strategy which aims to complete critical connections for pedestrians.<sup>110, 111</sup>

Photo Credit: marceloilers on Flickr

xvi Go for Green recommends a minimum of 7% of transportation-related infrastructure funding should be allocated to active transportation infrastructure. The Heart and Stroke Foundation of Canada use this recommendation in their position statement on Health and the Built Environment.



### **LEARNING FROM EXPERIENCE: NEW CITY HALL, SURREY, BC**

The City of Surrey is embarking on the construction of a new City Hall in order to address barriers to transit accessibility at the current location. The existing City Hall was built in the 1960s in an area isolated

from urbanized areas. The new City Hall will be located within Surrey City Centre, the location of various other major civic facilities such as a recreation centre, library, and university, as well as a mixed-use retail and office complex. The new facility will have convenient access to various modes of transport including a Skytrain station, and pedestrian and cycling infrastructure. Along with improving accessibility to the services provided by the City Hall, the development is also anticipated to act as a catalyst for increased investment in the area.<sup>112</sup>

Photo Credit: waferboard on Flickr



## 5. Beyond Land Use Planning



As already emphasized, land use planning has enormous impacts on human health and well-being. However, a healthy community must draw on other elements of the planner's skill set in order to truly address all the elements of a healthy place. This involves a consideration of topics often in the realm of social planning, such as social development and mental health. It can also involve

broadening the definition of well-being to include a truly holistic perspective on what makes us happy, successful, connected and healthy as human beings. This could involve exposure to a sense of wonder and awe, openness, authenticity, or spiritual contemplation. It is the stuff that makes us grow as a community and as individuals, and connects us to our neighbours and to the world around us. Timothy Beatley recounts a story of a teacher taking his high school class on a nature walk, where the students were unable to name or recognize even the most common native plants. The teacher connected recognition to a love that connects us to one another and to the environments that make up our home. "Can you imagine a satisfactory love relationship with someone whose name you do not know?" the teacher asks his students. "I can't. It is perhaps the quintessential human characteristic that we cannot know or love what we have not named. Names are passwords to our hearts, and it is there, in the end, that we will find the room for a whole world."<sup>113</sup> It is health and healing of the mind, body and soul.

### 5.1. Social Development

During the 20th century, it came to be believed that an individual's health depended simply on "good genes" and the skill of doctors. As has been shown in this guide, extensive research has indicated that health is greatly affected by the environment in which we live, but it is also influenced by a combination of social factors. Social determinants of health (SDH) include factors such as income, education, employment, food security, early child development, housing, social status, social exclusion, social safety network, and health services.<sup>xvii</sup> Clearly, the planning and design professions can influence many of these determinants of health.

**Communities with a high level of social capital experience increased prosperity, lower levels of crime, a greater sense of community cohesion, and are more likely to have their needs met by government. To top it off, those with strong social networks have higher life expectancies.**

Health inequities across population segments tend to reflect a social gradient: the lower the socio-economic position, the worse the health.<sup>114</sup> This is demonstrated in the spatial distribution of poverty in any community, and this too is an issue that the design and planning professions can take into account in their work and seek to reduce or eliminate.

Social development is described as a means of promoting people's welfare that focuses, in the broadest sense, on supporting people to become more capable of making their own decisions and acting on them.<sup>115</sup> A socially sustainable society

xvii For more information about the determinants of health, see the Public Health Agency of Canada at <http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php#determinants>

is one that satisfies an extended set of human needs and preserves social justice, human dignity, and participation in society over a long period of time.<sup>116</sup> It relates to inter-generational equity and well-being. Social development includes meeting basic needs but also the ability of individuals to reach their full potential.<sup>xviii</sup>

Social capital, defined by Robert Putnam as “the collective value of all ‘social networks’ and the inclinations that arise from these networks to do things for each other,”<sup>117</sup> can contribute to community health in numerous ways. Communities with a high level of social capital experience increased prosperity, lower levels of crime, a greater sense of community cohesion, and are more likely to have their needs met by government. To top it off, those with strong social networks have higher life expectancies.<sup>118</sup>

Convivial communities provide opportunities for informal social connections between people. This may be interacting with fellow dog walkers in a park, or comparing freshly-harvested vegetables dug from a

xviii The achievement of human potential was in fact the end-point in the definition of a healthy city first proposed in 1986 and adopted by WHO (Hancock and Duhl)

community garden plot. Conviviality can be facilitated through “third spaces:”<sup>xix</sup> those besides work or home such as coffee shops and neighbourhood pubs that give a place for these sorts of casual interactions. These places promote a sense of community and shared experiences between strangers.

Consider the neuropeptide oxytocin, the “cuddle chemical” behind feelings of trust, generosity and empathy. Among the stimuli for its release in the body, including sex and breastfeeding, is human eye contact and exercise, neither of which are easy to accomplish while travelling in an automobile. IBM conducted a survey of over 8000 adult drivers in 20 major cities around the world. If their commuting time could be significantly reduced, 53% of survey respondents said they would spend more time with friends or family, 44% would devote themselves to more recreation, and 42% would spend more time exercising (multiple answers were allowed).<sup>119</sup>

xix The concept of “third space” was introduced by Ray Oldenburg in his book “The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through The Day” (2nd ed. 1997). Oldenburg suggests that people need a place to go and feel part of a community away from their home (the “first” place) or their workplace (the “second” place).



### LEARNING FROM EXPERIENCE: JANE'S WALK

Jane's Walk is a series of free neighbourhood walks inspired by the work of urbanist and activist Jane Jacobs. Volunteer tour guides take groups of people to the area where they live, work or play in, and allow people to share personal experiences

of place. Jane Jacobs believed strongly that local residents understood best how their neighbourhood works, and what is needed to strengthen and improve them; these walks build on this belief by using local residents to choose the route and what stories, buildings and history they will share. Though originating in Toronto, the idea of Jane's Walk has spread to cities across North America. The walks connect participants to their surroundings and help build bridges between neighbours and communities, all while discovering their city on foot.<sup>120</sup>

Photo Credit: BriYYZ on Flickr

## LEARNING FROM EXPERIENCE: SOCIAL DEVELOPMENT IN LA RONGE, SK

The community of La Ronge in Northern Saskatchewan includes the three smaller communities of the Town of La Ronge, the Northern Village of Air Ronge, and the Lac La Ronge First Nation. Together, the population is around 6,000 with over 75% of residents with Aboriginal lineage. The community faces challenges of isolation, boom and bust cycles of resource extraction, a shortage of skilled labour, housing shortages and issues of affordability, and social divisions of race, class, and gender. Despite these obstacles, the community has addressed economic leakages, developed local organizations and resources, promoted education and skill development, focused on quality of life issues, and supported traditional culture and diversity.

To strengthen the local economy, co-operatives, non-profits, credit unions, and the La Ronge Chamber of Commerce strategized ways to support local businesses and re-invest in the community. These included 'shop locally' campaigns, the provision of affordable goods through locally owned and operated co-operatives, and the development

of a locally owned movie theatre with support from provincial grant funding. Skill development was promoted through regular and fast-tracked training programs from local post-secondary institutions, online programs through the Saskatchewan Communications Network, and workshops, employment opportunities, and counselling from the Gary Tinker Federation with support from provincial and federal governments.

Numerous organizations banded together to address cultural opportunities. The La Ronge Arts Council worked to promote art, literature, and classical music. To address cultural preservation, the Northern Saskatchewan Trappers Association Co-operative Inc. promoted traditional languages, skills, and spirit through festivals, events, and the Justice Trapline (a traditional work alternative to incarceration for young offenders); employment and training opportunities were offered through the La Ronge Hotel using traditional oral cultures and First Nations languages; and the 'inclusion centre' was developed at the La Ronge Childcare Co-op to encourage diversity and respect for different cultures.<sup>121</sup>

A strong sense of culture in a community can help impart a sense of place. Ultimately, culture involves a shared set of values that plays a significant role in the day-to-day choices that we make. Culture is about urban design; diversity and identity; language; arts and heritage. This does not just mean formal, professional arts, but rather encompasses community arts such as theatre, choirs, dancing, community festivals, and multi-cultural activities, with all of their mental and social health benefits.

## 5.2. Mental Health

Mental health influences a wide range of outcomes for individuals & communities. These include healthier lifestyles, better physical health, improved recovery from illness, fewer limitations in daily living, higher educational attainment, more social cohesion & engagement and improved quality of life.<sup>122</sup> One of the prime determinants of mental health is social connectedness.

Today, one in four Americans say they have no one to talk with about important matters, a number that has tripled in the last 20 years. Overall, people who are really isolated are at increased risk not only for

cardiovascular disease, but for infectious diseases, for diabetes, for strokes, for cancer. They were at increased risk from almost every cause of death.<sup>123</sup>

In her book, *A Brief History of Anxiety* (2008), Patricia Pearson explores the “Latino paradox:” while international health data suggests that Mexicans are relatively low in anxiety and depression compared to Canada and America, once they cross the border into the USA, they have comparable rates of alcohol and substance use, anxiety and depression to their American counterparts. Pearson points to the social isolation present in Canada and the United States as a major difference with Mexican culture. Most Mexicans still live within the communities they were born in, they still have their extended families surrounding them, they are very much connected to the unions and the church and the frequent rituals, parades and fiestas that accompany them.

These rituals act as cultural anchors. A connected and supportive community can both prevent and mitigate the impact of mental health disorders.<sup>124</sup>

Contact with nature may provide a population-wide ‘upstream’ strategy in the prevention of mental health issues.<sup>125</sup> In one study, children with access to green space near their home

**A connected and supportive community can both prevent and mitigate the impact of mental health disorders.**

### **LEARNING FROM EXPERIENCE: ELEMENTARY VOLUNTARY HORTICULTURAL THERAPY PROGRAM, PITT MEADOWS, BC**

The Pitt Meadows Elementary School courtyard was transformed into the Garden Club for students and teachers to learn from a volunteer master gardener and horticultural therapist. Through workshops and one-on-one instruction, students learn about sustainable gardening practices such as using lady bugs and beetles to protect plants from other insects.

In addition, kids learn how to make healthy meals from the food they grow and get a chance to get outside and get some exercise during the school day.

The garden has been designed for therapy and relaxation as well as education. The wheelchair accessible space is available for students, teachers, and school staff to relax and appreciate nature. In particular, the ‘snuzzle lawn’ has been designed with soft, long grass to stretch out on, look up at the sky, and enjoy.<sup>129</sup>

were better able to cope with life stresses and had increased cognitive function as they grew older.<sup>126</sup> A mental health charity in Britain compared the effects on mood of a walk in nature with a walk in a shopping mall. The outdoor walk resulted in significant improvements in mood, with 70% of participants reporting a reduction in tension, while in the indoor walk 50% of participants reported an increase in tension. There were also improvements in self-esteem following the nature walk (90% improved).<sup>127</sup> In general, access to nature—whether this is in the form of natural areas or simply as views of nature—results in better cognitive functioning; more proactive, effective patterns of life functioning; more self-discipline and impulse control; greater overall mental health; and greater resiliency in response to stress.<sup>128</sup>

### 5.3. Spiritual Well-Being

The concept of “spirit” is infrequently addressed at an explicit level in most planning exercises. However, many ideas which may well relate to this topic are already present in the planning discussion under other terminology: connections to nature, social capital, beauty and aesthetics, communication and collaboration, and community well-being, to name a few.

Regardless of theological outlook, considerations of faith and connection are important personal values that contribute to the health of a community. For those for whom a spiritual or faith perspective is important, it is often a profoundly fundamental platform from which they live their lives. Too often this is missed because we don’t understand a specific perspective and therefore inadvertently overlook the value in the inclusion of it. It has been suggested that by missing the integration of people’s spirituality into planning analysis and processes, there is a risk of frustration, burn-out, and overall failure of planned interventions.<sup>130</sup>

For many people, the outdoors are “churches without walls”—nearly 46% of backcountry visitors to Canada’s Prince Albert National Park in Saskatchewan reported they felt that the opportunity to reflect on spiritual values was somewhat, quite, or very important to them in their decision to visit the backcountry.<sup>131</sup> Walking in the natural environment, in particular, is widely conceived to be a valuable and enjoyable antidote to the stresses, complication, and regulation of modern urban life. Walking outdoors is described as a “multi-sensual and stimulating experience which frees the mind and generates reflexivity, philosophical and intellectual thought, aesthetic contemplation and opens up a more ‘natural’ self.”<sup>132</sup>

Building or creating natural and built spiritually focused places and spaces dates back to pre-historic times, including caves and exposed stone sites in Europe and other parts of the world rich with the stories of petroglyphs (paintings – like Lascaux in France) and petroglyphs (etchings – like the Peterborough Petroglyphs, images carved into limestone in Ontario). In fact, throughout much of human history the spiritual dimension, as manifested in churches and temples, was at the very heart of the community. The landscape of Europe and much of Canada still bears testimony to this historical reality. All of these places are physical testament to the cultural and personal importance of our spiritual health, of connection to something greater than an individual, of the recognition that there is more to ourselves than we can physically touch or see. Before skyscrapers, it was the spiritual places that were the largest buildings on earth.

**...nearly 46% of backcountry visitors to Canada’s Prince Albert National Park in Saskatchewan reported they felt that the opportunity to reflect on spiritual values was somewhat, quite, or very important to them in their decision to visit the backcountry.**

It is important to bring some of that level of attention to the sacred nature of place back into planning. Wonder and awe are all too often missing in our lives. As Timothy Beatley writes, :

*The qualities of wonder and fascination, the ability to nurture deep personal connections and involvement, visceral engagement in something larger than and outside ourselves, offer the potential for meaning in life few other things can provide...We need the design and planning goals of cities to include wonder and awe and fascination and an appreciation for the wildness that every city harbours.*<sup>133</sup>

Looking up at a starry sky is something that may no longer be accessible to many of us: two-thirds of the US population and more than one-third of the European population have already lost the ability to see the Milky Way with the naked eye.<sup>134</sup> This source of wonder and awe is lost due to the light pollution and “sky glow” we now experience in urban centres.

During a blackout in Los Angeles after an earthquake in 1994, emergency services received many anxious calls reporting a strange “giant, silvery cloud” in the dark sky. Residents were, for the first time, seeing the Milky Way.<sup>135</sup> As Trevor Hancock has stated, “If we cannot see the stars, how do we know our place in the universe?”<sup>136</sup>

Planning looks at relationships between people and place, addressing a community’s vision for the future. This mandate in itself addresses something larger than ourselves - it gives meaning to life beyond the here and now, beyond the lifespan of any one individual who contributes to this vision. It is not any particular faith that needs our focus, but rather an overall faith in humanity to realize the possibility of a healthy community.<sup>137</sup>

### **LEARNING FROM EXPERIENCE: LITTLE GREEN LUNCH, VANCOUVER, BC**

The Sunset Daycare in South Vancouver has implemented a unique gardening education program. The day care’s fruit, vegetable, and herb garden is used not only to educate children about gardening and connect them with nature on a deeper level, but also to create healthy vegetarian lunches. Dr. Aimee Taylor, a horticultural therapist, teaches the kids about where food comes

from, how to grow and harvest food crops sustainably, and how local food production benefits the world. By spending time outdoors interacting with nature, children at the Sunset Daycare can benefit emotionally and spiritually from interacting with nature, but also receive physical activity and learn important social skills such as teamwork and patience.<sup>138</sup>

Photo Credit: Canadian Horticultural Therapy Association



# In their own words

## Project Description:

Williams Lake is a resource-based community, with traditional economic activities of mining, forestry, milling, and ranching. Between 2008 and 2011, the city undertook an Integrated Community Sustainability Plan (ICSP) and Official Community Plan (OCP) process. Williams Lake saw the planning process as an opportunity to build stronger partnerships with local First Nations.

During the early stages of the OCP process, many stakeholders were consulted, but this did not include formal faith organizations such as churches. McKittrick, who has a background in both social planning and theology, decided to try and formally engage them in the process. She reviewed the OCP and pulled the sections that churches were likely to be most interested in. She then liaised with pastors to organize small group meetings with their parishioners. At the meetings, participants discussed sections of the OCP and what implications these would have for their church. For example, sections dealing with families, child care, and affordable housing. The group was asked where the church saw challenges and opportunities.

The discussions used the context of each church's mission to help guide the discussions. For instance,

**Interviewee:** Annie McKittrick, former Acting Manager of Social Development, City of Williams Lake, BC (currently Social Planner, Family & Community Services, Strathcona County, AB)

**Community name:** Williams Lake, BC

**Approximate population size:** 15,000 (2010) but in fact Williams Lake meets the need

of about 30,000 persons throughout the regional district. First Nations depend on the City for all their commercial and government needs.

**Key Collaborators:** Faith groups, Social Planner, Planner

**Phase of the Planning Process/Stage of Engagement:** Community Plans



there was a strong desire by the church to promote reconciliation with First Nations groups. Within the OCP, there was a whole section on partnership

with First Nations. This was a topic that resonated with the parishioners.

Partway through the process, an initiative called Leaders Moving Forward was created under the guidance of the Mayor. The group is composed of leader representatives from various aspects of the community: school board, regional health authority, RCMP, industry, social agencies, First Nations, and faith groups. This group was given an introduction to planning, and then together they went through the OCP and discussed various issues before choosing

## How does faith or spiritual worldview affect how people see their community?



several areas they would take on as priorities to move forward as actions.

### What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?

When working with groups, it's important to understand the theological context of their faith; to move beyond the stereotypes. How does faith or spiritual worldview affect how people see their community? This may be easier to explore in cultures where spirituality plays a stronger role in day-to-day life, such as in Thailand. However, even in the North American context, the role of spirituality should not be ignored as part of building a healthy community.

Look for issues that resonate with potential collaborators. In this instance, it was recognized that churches tackle issues from a social point of a view, not necessarily from a city planning perspective. However, there are huge areas of overlap in terms of commonalities between these two. Finding these

common issues will help engage what may at first appear as “unlikely” partnerships.

See faith groups as valuable stakeholders. They are contributors to the health and well-being of a community, often even more so in smaller towns. Engaging church leaders can mean getting a whole group involved that are not typically connected to the planning process.

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## 6. Measurement Tools



New measurement tools are emerging that can assist planners in the work they do, often bringing a stronger evidence-base to the table. While some of these tools are being developed explicitly for the purpose of healthier community planning, others are existing tools already commonly used in other disciplines.

Health Impact Assessments (HIAs) are an overarching tool that can be used to help measure the potential impacts of decisions on community health. Development and policy decisions can have wide-reaching consequences, and the ability to predict these consequences is as important for human health as it is for the environment.

HIAs can be used to:

- determine if a proposal could affect public health;
- identify the scope of health effects;
- assess the potential impacts through data analysis and stakeholder engagement;
- recommend changes or alternatives to avoid negative consequences;
- report findings to decision-makers and stakeholders; and
- monitor and evaluate the implementation of proposals.

Table 2: Types of HIAs

<b>Rapid HIA</b>	<b>Intermediate HIA</b>	<b>Comprehensive HIA</b>
Weeks to months	Months	Months to years
For smaller proposals	For more complex projects	For complex or large proposals
Mainly literature review	Data analysis, generally no new data collected	Require new data collection
Minor or no public engagement	Significant public engagement	Significant public engagement

This table represents general categories in which HIAs can be classified. However, specific elements of any HIA may vary in terms of time, engagement, analysis, and procedure.

## LEARNING FROM EXPERIENCE: A SAMPLE OF NORTH AMERICAN MEASUREMENT TOOLS

### **Healthy Development Index**

Peel Public Health and St. Michaels Hospital in Toronto partnered to create a Healthy Development Index to determine linkages and relationships between the built environment and health. The Index is based around seven key elements: density, proximity to services and transit, land use mix, street connectivity, road network and sidewalk characteristics, parking, and aesthetics and human scale development. Each of these elements contains specific quantitative measures and qualitative goals to create healthier communities. It can be used by existing and proposed communities to assess urban form included in planning policies, zoning bylaws, secondary plans and site development proposals along standards that support active living.

<http://www.peelregion.ca/health/resources/healthydesign/pdf/HDI-report.pdf>

### **Communities Count Report**

The Communities Count Partnership in King County, Washington has developed a number of indicators to assess, map, and monitor the state of community health over time. A report is published every 3 years based on 38 indicators in 6 main categories: basic needs and social well-being, positive development

through life stages, safety and health, community strength, natural and built environment, and arts and culture. These reports are used to guide decision-makers with important policy and development choices as well as to share health information with the public.

[www.communitiescount.org](http://www.communitiescount.org)

### **Built Environment and Active Transportation (BEAT) Neighbourhood Assessment**

The BEAT assessment tool uses a scoring system to examine subjects related to active transportation such as density and land use, pedestrian infrastructure, bicycling infrastructure, roads and parking, safety and transit. It uses a community walkabout to get participants experiencing how the built environment impacts walkability, bikeability, wheelability and the needs of a range of user groups (families with strollers, children, older adults/seniors, mobility restricted, and people with disabilities). The final scoring can be used to understand neighbourhood performance and identify improvement options. This resource was created for use by communities to help organizations and governments in decision-making, infrastructure investment and programming.

[http://www.physicalactivitystrategy.ca/pdfs/BEAT/B.E.A.T.Neighbourhood\\_Assessment.pdf](http://www.physicalactivitystrategy.ca/pdfs/BEAT/B.E.A.T.Neighbourhood_Assessment.pdf)



### **Walkable Edmonton Checklist**

The City of Edmonton has developed an interactive Walkability Checklist which can be used by members of the community. The aim of the checklist is to identify ways in which walkability can be improved and to select routes that are safe and pleasant to walk. The checklist is in a simple format, using a combination of tick boxes and a five scale rating system. The assessment criteria includes sidewalks, stairs, ramps and winter safety, crossings, traffic, personal safety as well as pleasant and supportive routes for walkers.

<http://www.edmonton.ca/transportation/WalkabilityChecklist.pdf>

### **National Association of County & City Health Officials (NACCHO)**

The Association acts as an advocate and centralized hub for local health departments and provides free resources to support community and environmental health. NACCHO offers online toolkits to provide local authorities and agencies with presentations, case studies, templates, reports, and training materials to educate and inform about specific public health issues. With a focus on prevention and preparedness, the NACCHO was one of the first US organizations to develop HIA checklists to guide development and policy decisions. HIA materials are available across a wide variety of topics including healthy communities, equity and social justice, and chronic disease prevention.

[www.naccho.org](http://www.naccho.org)

# In their own words

## Project Description:

Christine Gutmann's professional position formally connects planning and public health; Gutmann is currently on a one year secondment from development planning to the public health unit. The relationship between planning and public health arose from a 2005 report from Peel Public Health to Council, indicating the need to work together with development planning on common goals for health and well-being. After the partnership began in 2005, it was soon realised that there was a need to quantify walkability, as the narrative approach used by planners was not sufficient to build the case. Although the Healthy Development Index that had been created in partnership with Peel Public Health and St. Michaels Hospital presents a valuable, evidence-based analysis on specific relationships between land use and health impacts, it is not user friendly in the sense that it cannot easily be applied by certain audiences. A Health Background Study framework has been developed which is based primarily on the Index and provides a tool more similar to those planners are used to using and applying.

Peel Public Health is currently working with the local municipalities to help them to develop tools that are custom-tailored to the context of the municipality's needs, whether this is "greenfield" development, infill or redevelopment, or rural service centre.

**Interviewee:** Christine Gutmann, Health Planning Facilitator, Public Health, Region of Peel

**Community name:** Peel Region

**Approximate population size:** ~1,160,000 (2006), consisting of Mississauga (mostly urban population of 670,000), Brampton (mostly urban population of 430,000), and Caledon (mostly rural population of 57,000).

**Key Collaborators:** Region of Peel Public Health, Public Works Department (Region of Peel), local municipalities, other key stakeholders

**Phase of the Planning Process/Stage of Engagement:** Community Plans; Re-thinking Planning (cross-jurisdiction)

Gutmann has also been working on building connections with the Public Works Department (Transportation Planning, Development Services) and Corporate Services Department (Integrated Planning)

as well as the local municipalities (Town of Caledon, Cities of Brampton and Mississauga). As a result, she has been able to get involved in their projects. This has included commenting on development applications, environmental assessments (including EA RFPs), the long-range transportation plan, and other transportation related projects. Gutmann's focus is on providing succinct, useful comments representing public health information that planners can use and understand. Her position brings a planners' ability to



**The relationship between planning and public health arose from a 2005 report from Peel Public Health to Council, indicating the need to work together with development planning on common goals for health and well-being.**

relate information back to the topic at hand.

**What information and guidance do you believe would be most valuable for planners who want to begin, or enhance, planning for healthy communities?**

While the built environment and health connections are increasingly being recognized, there is often a disconnect in how people work within different departments, and even in the language used to describe similar ideas. The focus for public health in this area is addressing obesity. However, planners have other priorities they have to balance with this issue. So part of the work required is in coaching public health along to help them understand our world as planners and how they can best influence the built environment.

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## 7. Conclusion

Planning for healthy communities requires that we join hands with our colleagues down the hall in engineering, the health professionals down the street, officials in the capital, and the environmental activists at the coffee shop. As planners we can play a central leadership role in linking, organizing and synthesizing information and policy from the many disciplines and organizations that impact community health.

We can be most effective when our work mirrors the connected nature of systems through collaboration and dialogue between disciplines, by collectively expanding our appreciation of the nature of evidence and how it may inform decision making, by appreciating the value of enhanced communication processes, and ultimately, when we synthesize our knowledge and experience, to better serve the goal of creating healthy communities.

As we venture out of our protective and comfortable professional “silos” we will transition from our inherently blinkered views of health to a broader and more realistic community and ecologically based

view. This is a perspective that recognizes that no single profession or organization can fully understand the complex nature of health and that no organization can take on this responsibility alone.

**As planners we can play a central leadership role in linking, organizing and synthesizing information and policy from the many disciplines and organizations that impact community health.**

Though enormous gains have already been made in increasing our understanding of the connections between health and the built environment, there is ever more to do. Change does not happen overnight, especially in our communities that are already largely built. It will take a concerted and continuous effort, drawing on both incremental changes as well as looking for opportunities to make large gains. The relationships we develop with colleagues and community members will help this process continue to make progress.

## 8. Key Resources

There are a variety of useful websites and documents containing relevant information to the discussion of health and the built environment. Two key resources that have compiled a wealth of relevant material are:

Canadian Institute of Planners Healthy Communities Program

<http://www.cip-icu.ca/web/la/en/pa/8A1638DA84384A329658456A84D290E2/template.asp>

Inventory of Built Environment Resources

(National Collaborating Centre for Environmental Health, 2012)

[http://ncceh.ca/en/additional\\_resources?topic=89&subtopic=159](http://ncceh.ca/en/additional_resources?topic=89&subtopic=159)

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