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HEALTHY CITIES AND THE CITY PLANNING PROCESS

A BACKGROUND DOCUMENT ON LINKS BETWEEN HEALTH AND URBAN PLANNING

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EUROPEAN HEALTH21 TARGET 13

SETTINGS FOR HEALTH

By the year 2015, people in the Region should have greater opportunities to live in healthy physical and social environments at home, at school, at the workplace and in the local community

(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

EUROPEAN HEALTH21 TARGET 14

MULTISECTORAL RESPONSIBILITY FOR HEALTH

By the year 2020, all sectors should have recognized and accepted their responsibility for health

(Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

ABSTRACT

The links between urban planning and health are many and varied. Environmental, social and economic conditions in cities can have both positive and negative influences on human health and centre. Urban planning and related professions play an important role in shaping those conditions. Healthy Cities and the City Planning process is a background paper supporting the developmental work of the WHO Healthy Cities project on the subject of "Healthy Urban Planning". The paper explores and analyses the relationship between urban planning and public health in terms of history and current issues in cities. It puts forward new approaches to develop healthy urban planning practices, and cities examples from across Europe and North America.

Keywords

HEALTHY CITIES
CITY PLANNING
URBAN HEALTH
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Foreword

The links between urban planning and health are many and varied. Environmental, social and economic conditions in cities can have both positive and negative influences on human health and wellbeing. Urban planning and related professions play an important role in shaping those conditions. There is a clear need for urban planners to integrate health considerations fully into their work, both in policy and practical terms, and for all sectors in cities to work together to improve health, wellbeing and quality of life.

WHO recognizes the importance of these links, and healthy and sustainable urban planning is a core area of work for Phase III of the WHO Healthy Cities project (1998–2002). This document has been commissioned by WHO as a background paper to assist the developmental work in this area. It makes a significant contribution to the discussion of the links between urban planning and health, and its contents will feed into new Healthy Cities guidance material for healthy and sustainable urban planning. The paper explores and analyses the relationship between urban planning and public health in terms of history, current issues in cities, new approaches and examples. The focus is largely on conditions in cities in the United States, but the phenomena discussed are prevalent in cities throughout the world.

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Introduction

The urban world is changing rapidly. Whether in the west or in countries in transition, the changes taking place in our cities are of revolutionary proportions. It thus becomes vitally important to look at how cities develop and how they are planned.

To this end, this paper will look at the function of urban planners – professionals long concerned with the urban environment – and see where the field of urban planning has been, what is happening now, and where it is likely to go. Like the field of health, which is similarly in great flux, urban planning must take into account the broader social, economic and political context.

The technological revolutions, or the information and communication revolutions, have, along with increased transport, transformed our communities. For many, these tools have resulted in many of us living in a "virtual world," unlimited by geography, unbounded by specific professions – a truly global world.

For the poor of all nations, the changes have resulted in mass movements to cities, both on their own continents and to places of opportunity in the west. However, the main concerns for the poor are focused on the basic issues of life: food, water, sewage, housing and jobs.

The outcomes of this revolution, like the ones mentioned above, have created cities of great diversity and increased gaps between poor and rich. Diversity and conflict abound. Often the result is closed communities, blockaded against a feared and hostile world. It means, too, that cities are planned no longer simply by planners, but also by the people themselves. When new buildings are provided, they are often altered by the inhabitants. Thus, the planners are forced to change from focusing solely on geography to considering human needs as well. Healthy Cities offers them an opportunity to join hands in a new approach *(1–3)*. The WHO Healthy Cities Project, after tens years of experience in planning and community action, has developed a strong understanding that the prime determinants of health status are social and economic conditions *(4)*; moreover, that ensuring health for all should not be exclusive to one political party or a singular profession *(5)*. In this paper, we will cover the history of public health and urban planning and show how Healthy Cities, a project that arose out of an awareness of the links between public health and urban planning, offers planners a set of allies and tools to help them in their new work as facilitators and catalysts.

At one time, the disciplines of public health and urban planning were closely aligned. With the introduction of a better understanding of bacteria, infectious disease and vaccinations, however, the focus of public health shifted away from community engineering and urban design and towards a model based on medical principles. Following this shift, the two disciplines have stood on their own across the world. However, as the world continues to become more complex and less linear, the challenge is how to design processes and systems that ensure both health for all and sustainable development. This new shift calls for a framework in which people from multiple disciplines can effectively work towards creating healthy, sustainable and economically vital cities – Healthy Cities. We contend that the complexities embedded in the fabric of communities across the world resonates from, and thus warrants a discussion of, the very origins of both public health and urban planning.

Meeting the new urban health challenges depends upon reuniting public health and urban planning in the academic world, in the professional arena, in community development and in government. From this paper, we hope to foster a dialogue that delves into the fundamental interconnections between community wellbeing and the role of planners. The paper will explore and establish links between public health and urban planning. It will help practitioners make more appropriate policy decisions, enable universities to educate professionals better and, most importantly, provide a conceptual framework for, and guidance on how to go about, integrating health considerations into the practice of urban planning.

A discussion regarding re-establishing links between these professions must begin with an examination of the historical background. This paper will explore the historical stages of urban planning, followed by a look at the history of the field of public health. The next step is to link the two disciplines. This is followed by a brief look at the traditional health considerations of urban planning and the impact that the field has had on individual and community health. The paper continues with important questions planners must ask themselves in order to ensure *healthy urban planning*. Next, the urban health challenges of today are presented, along with tools and techniques that we contend are crucial to promoting health and sustainable development. Finally, we present world-wide examples of healthy urban planning. It is important to note that this paper is not intended to dictate uniform answers to myriad modern-day urban concerns, but rather to provide evidence of the need to link these professions and to put forward ideas on how to take the first steps towards building Healthy Cities.

1. Historical and theoretical foundations of urban planning and public health

Historic stages of urban development

There are critical stages and rationales in the history of urban planning that provide insight into the past and, more importantly, into how the lessons of the past can be employed today. Historically, there have been two main rationales for urban planning. The foundation for the first is based on utopianism, idealism, symbolism and the expression of authority. The second is based on the need for corrective measures due to natural disasters, human health hazards and the need to circulate goods and people throughout an urban area *(6)*. What follows is a brief profile of the various stages in the history of the field. The overview we provide does not cover every stage, but does help to demonstrate changes over time. Additionally, the stages discussed can help guide future planning scenarios that pay careful consideration to issues of public health.

The early years

In the earliest times, planning was a process of pure survival. Hunter-gatherers subsisted by their understanding of available resources. Where is food? Where is shelter? How do we protect ourselves against harm? Their answers determined whether or not they were able to sustain themselves – the alternative was death.

These same questions are continually with us. What changes is the understanding of our relationship to the surrounding environment. If we believe that our fate is determined by the "whim of the gods", we establish ways to affect that unknown power. Early community leaders and shamans interceded with the unknown to guarantee the safety of the group. Leadership meant understanding oneself, the group, the environment and the unknown.

Once food became more easily available, the mobile community found a geographic base. The locations chosen had certain criteria: safety, places for farming and storage and locales for interaction and communication. For example, the cities of the Greeks and Romans were based on the allocation of land to the individual and the establishment of main streets in a grid pattern *(7)*. Rivers and natural trade routes were other important considerations. The earliest permanent communities straightened out their land, removing rocks and making sites linear. They protected their sites from damage by the elements through barricades against flooding and planning for the event of drought. The dominant word was *control* – controlling the environment, resources and others.

Additionally, most early communities were designed around common spaces where people considered their relationships with the spiritual universe. A prime example of this is the church and other religious institutions. The role of the church or temple in cities was fabulously important for the earliest planned societies. It was the geographical centre, and it was often the largest and most ornate building. Further, the church served as a convening point for other vital components of city life such as markets, government and festivals. The Basilica of San Petronio centred in the heart of Bologna, Italy, is an excellent illustration of this concept. The church served as the *infrastructure* and organizing system, enabling the other important extensions to be realized.

In sum, early planned communities focused on spaces, structures and processes that facilitated the central activities of the community. The belief that "the environment takes care of everything" was present in the distant past and is still with us, as plans are made without fully thinking through the possible consequences. It took a long time for communities to respond to secondary problems. When they did, the profession of urban or land-use planning developed.

Reformers

The planners of mid-nineteenth century cities were both public health workers and what we today call urban planners. The Haussman model was of key importance. It focused on the removal of unsanitary conditions and city beautification. Its main objectives were functionality and public health *(8)*. European examples include Barcelona, Madrid and Paris. The functionalist model also played a role in this stage. At the core of this model is the idea of dividing up functions (e.g. zoning), yet linking them through a network of circulation routes. Its objectives include improved hygiene, social progress and increased efficiency *(7)*.

Several pioneers were also central in helping to shape and further the idea of social and health planning. Such pioneering work includes (but is not limited to) the efforts of Ebenezer Howard, Patrick Geddes and Lewis Mumford. Peter Hall*)* aptly describes their purpose and their key contributions to the field:

> The vision of these anarchist pioneers was not merely of an alternative built form, but of an alternative society, neither capitalistic nor bureaucratic-socialistic: a society based on voluntary governing commonwealths. Not merely in physical form, but also in spirit, they were thus secular versions of Winthrop's Puritan colony of Massachusetts: the city upon a hill. *(8)*

Ebenezer Howard provided the first, and arguably the most important, response to the Victorian city. His concept was of the garden city, an idea he developed during the last two decades of the nineteenth century. It proposed to solve, or at least lessen, the problems of the Victorian city by exporting a good proportion of the people and jobs to self-contained new towns in open countryside. In addition, this provided an escape from the overblown land values of the giant city *(8)*.

In the early 1900s, biologist Patrick Geddes offered his vision of the regional city. He took Howard's idea one step further by proposing regional planning as the answer to the congested large metropolis. Further, Geddes maintained that each sub-region would be developed with the principles of ecological balance and resource renewal in mind *(8)*.

Around 1920 Lewis Mumford's theories became pivotal in sustaining the work of Geddes, largely through the creation of the Regional Planning Association of America *(8)* and by acknowledging the tremendous role that cities play in the various forms of human social life.

> The task of the coming city is to put the highest concerns of man at the center of all his activities: to unite the scattered fragments of the human personality, turning artificially dismembered men – bureaucrats, specialists, "experts," depersonalized agents – into complete human beings, repairing the damage that has been done by vocational separation, by social segregation, by the overcultivation of favored function, by tribalisms and nationalisms, by the absence of organic partnerships and ideal purposes. *(7)*

The vision of these three pioneers focused not merely on alternative built forms, but on a society founded upon voluntary cooperation, specifically living and working in small, self-governing communities. The ideas of these historical visionaries align themselves with the modern day movement to promote health for all and sustainable development. This is evidenced by the current beliefs that planning for cities does not merely point to built form and physical design, that community-wide participation is essential and, most importantly, that a view must be taken of the whole and not just the parts.

New towns

The New Town movement was a product of both Howard and Geddes, among others. In 1946, the New Towns Act of Britain received royal approval and over the next four years thirteen new towns were designated *(7,8)*. After the completion of many of the new towns, including eight in the London area, criticism of this formal organization surrounded by a green belt led to the programme's abrupt termination. However, as Mumford *(7)* argues, the failure of the movement was not a failure of the new towns or, even less so, of the premises upon which they were built, but rather a failure of the British political imagination.

Ironically, rarely did one find a planner living in a new town. Why is it that planners preferred old towns, and for that matter still do? Following an investigation of new towns in the United States, Duhl *(9)* found that it was rare to find a planner living in the community he/she planned. (The one exception was James Rouse, planner of the new town of Columbia, MD, USA.) When Duhl inquired, the reason given was always the same: the old towns met their *needs* and offered a sense of *surprise*. Philip Langdon *(10)* states that his preference for the old towns initially stemmed from the lack of solid construction and strength in the new houses. As his investigation continued, however, he began to notice additional contrasts that went beyond physical design. "More important than construction details of the dwellings was the community layout and the pattern of daily life it fostered." *(10)* Both Duhl's and Langdon's research point to the influence that planning has in the physical and social organization of communities, and provides background for the emerging models of today.

Current and emerging trends

The field of planning is at a point of great change. New models and strategies are emerging that focus on more comprehensive approaches and are especially concerned with long-term

sustainability. In fact, many of them are based on urban sustainability theory. The two primary features of land use practices that have served as the impetus for new emerging strategies are:

1. zoning ordinances that isolate employment locations, shopping and services and housing locations from each other;

2. low-density growth planning aimed at creating automobile access to increasing expanses of land. *(11)*

This new movement has been called the New Urbanism or alternatively Neo-traditional Planning. The primary design characteristics of this new model are pedestrian-centred neighbourhoods where economic and social activities are within a five-minute walk, community orientation around public transport systems and mixed land *(12)*. It is these principles that have paved the way for other cutting edge models concerned with smart growth and sustainability.

One leader in this field is the American Peter Calthorpe, both planner and architect. He purports that many of his nation's compelling issues fail to be addressed at levels that are regional in scope. Specifically, due to a lack of regional tools of governance, policy-makers persist in treating these issues with band-aid solutions. He suggests that a new metropolitan strategy will respond better to public demands and promote efficient public investments and government. In other words, investment in inner city redevelopment should be intrinsically linked to regional opportunities, not isolated or contained within small geographic boundaries *(13)*.

William McDonough is another widely recognized leader in the area of ecologically intelligent architecture. His models consider the importance of minimizing human impact while creating designs that are congruent with the larger eco-system. Through this approach, he has produced numerous environmentally friendly, economically responsible buildings for corporate commercial, institutional and residential clients *(14)*.

Another related strategy, termed Circular Metabolism, aims to deliver both an efficient use of resources at a local level and effective economic distribution of available resources at a city-wide level. At the core of this model is growth and development that mimics "chaotic", organic development. Unlike the constraints and inflexibility of traditional energy management systems, "chaotic" development does not impose artificial constraints on growth. The fundamental shift in this form of thinking is that it moves away from a linear model to one that is circular *(15)*.

We have reviewed these stages of development and important historical contributions to the field because they show the lineage of thinking over time. New patterns are emerging, from an emphasis on *control* to *non-control*. The world is becoming more complex, and with this comes change in the planning process. More than ever before, the traditional role of urban planners overlaps that of developers, engineers and even the government. Further, more and more diversity and special interests exist. The central concerns then become the *processes* of holding the pieces together in a community. Conflict resolution and compromise become pivotal to the planning process.

Historic stages in public health

The history of public health can be divided into four distinct periods: nonspecific sanitation, specific sanitation, specific immunization and nonspecific immunization *(16)*. Each period helps to illustrate the theoretical evolution of public health since its first documentation.

Nonspecific sanitation (?–1875)

The first documented public health effort has Greek origins. The common view was that the body was really a vessel that contained four or five basic fluids. The different fluids manifested themselves in external differences in the human vessels (e.g. behavioural and physical differences). There was also a belief that the environment played a key role in determining the mix of fluids in the human body. The Greeks advocated staying away from climatic extremes and matching people to their environments.

The Romans introduced a variant on the Greek model. Rather than searching for the "right" environment, they emphasized "fixing" the environment. Civil engineering and making the environment fit the modal characteristic were the principal components of this ideology.

Between the 13th and mid-18th centuries the Miasma theory – that foul air indicates pathogen – came to prominence. This theory influenced the sanitary reform movement of the late 18th and early 19th centuries. It emphasized organizing the community in order to *control* the "bad air"; specifically, using the power of the state to combust, contain or distance miasma.

Specific sanitation (1875–1930)

The driving ideology of this time was the germ theory. This held that there were specific agents of infectious disease. It provided for the practice of public health to focus efforts towards cleaning up the "bad dirt." This led to a need for public health practitioners to prioritize, because each need was specific. The movement opened the doors to identifying specific illnesses and to special tests. Thus, the study of public health changed from a more general engineering-based effort to one that was highly specialized, focusing on combating specific environmental elements. However, throughout this period much public health and city planning were of the same entity.

Specific immunization (1930–1980)

The leading concept in public health during this period was the realization of humanity's inability to control all pathogens. This led to an increasing interest in immunizing the host so that the environment can be left as it is – hence the advent of vaccines. The tremendous amount of time and money spent on developing something to improve the health capacity of the human body led to a major shift from sanitation to immunization. A fundamental question, though, was how does the public health field deliver this product? Naturally, public health officials turned to physicians. The pendulum thus shifted from a social model to a medical model.

Nonspecific immunization (1980–the present)

Public health practitioners began to look beyond specific immunization for two reasons: firstly, data showed that people were dying from things other than infectious diseases, such as abuse, suicide and other violent acts; and secondly, the origins of public health are more closely aligned with a nonspecific ideology, emphasizing broad community concerns. Nonspecific immunization has roots in the observation that famine kills in many ways before starvation actually sets in. As with many public health issues, several elements must be dealt with in order truly to solve the larger problem. This model says that the field of public health should be searching for the metaphor to traditional immunization – hence the *new* public health paradigm.

The new public health paradigm: theoretical foundation

In order to understand the intersection between the two disciplines of public health and urban planning better, it is important to gain insight into the *new* public health paradigm and its theoretical underpinnings. This information provides the framework behind the need for collaborative efforts among multiple disciplines, specifically public health and urban planning, which result in healthier neighbourhoods, towns and cities.

Health can mean many things to different people. One of the most useful definitions of health is that from the Constitution of the World Health Organization *(17):*

> Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief or economic and social condition.

Not only does this statement define health, it is evidence of the public health pendulum swinging away from a medical model and back towards a social model – the new public health paradigm. The medical model focuses on the individual and on interventions that are used to treat disease. By contrast, a social model considers health as an outcome of the effects of socioeconomic status, culture, environmental conditions, housing, employment and community influences. In 1986, the First International Conference on Health Promotion in Ottawa declared that "the fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic prerequisites" (Annex 1) *(18).*

Stemming from these definitions of health, the new public health paradigm has six major guiding tenets. These tenets convey the breadth of public health and the need for health, in the broadest sense, to be considered in urban development and urban planning policy-making. The tenets are as follows.

1. Health is not merely the absence of disease or disability.
2. Health problems are defined at the policy level.
3. Health is a social issue.
4. Improving health status requires a long-term focus on policy development.
5. Improving health status requires a primary focus on changing basic conditions.
6. Improving health status requires involving natural leaders in the process of change.

The field of public health is currently shifting its focus to one that embodies these principles, but no direction can develop without theoretical underpinnings.

The field of public health has never been one to have its own theory, but rather borrows from other disciplines. Perhaps this also serves as evidence of the interconnectedness of people's health. Whatever the case, causation of poor health in both developing and developed countries is normally based on both anecdotal and formal theory. With the pendulum shifting back towards a more social model in public health, three philosophies help demonstrate the link between urban planning and public health: the social justice, political-economic and environmental theories.

Social justice is founded on the notion of shared responsibility and a strong obligation to the collective good. It also heeds the reality of unequal starting positions; everyone is *not* born equal. It focuses on social conditions and assured benefits (e.g. housing, education, safety). In relation

to public health, this places the focus on controlling hazards and changing the environment to prevent disability and premature death through organized collective action *(19)*.

Political-economic theory highlights the role of history and the state in influencing health. Specifically, it emphasizes how the structure of the economy and society affects the lives of individuals. "Political economy can be conceptualized as being the outermost force in a set of forces that affect the health of individuals." *(20)* The theory understands that resources are not allocated equally across the board; rather they are disseminated according to power. This allows for a comprehensive exploration of the impact of age, race, class, sexuality and gender on the health of communities. Further, the theory can help lay the groundwork for facilitating structural-level change.

The underlying concepts of **environmental** theory focus on the physical and social constructs of communities. The theory holds that significant numbers of diseases are caused by toxins in the environment, and implies that disease prevention, instead of requiring individual personal changes or medical treatments, demands changes in our surrounding environments *(21)*. Further, the environmental hypothesis points not only to chemicals, but also to the physical environments and social organization under which people live.

2. Linking the two fields: connections, implications and important questions

Urban planning and public health: links

The aforementioned concepts and theoretical orientations provide the foundation for a basic understanding of how public health and urban planning intersect. Specifically, they make reference to the fact that physical and social environments play major roles in the health of communities. Since much of the planning profession purports that its focus revolves around the design and creation of sound places for people, planning and public health professionals are intrinsically linked. That is, urban planning can and does serve as a form of primary prevention and contributor to health outcomes. Additionally, it sheds light on how a *holistic* approach to building cities is key.

Over the years, public health professionals have become increasingly aware that an effective public health response must take a broad, community-wide perspective that focuses on prevention over treatment and avoids "blaming the victim" by recognizing the pervasive influence that the environment has over behaviour. However, mere recognition of the roles of physical and social factors as agents of disease will not decrease acts of violence or social isolation. Action is needed. It is our suggestion, based on the current trend of the pendulum swinging back towards the origins of public health, that more collaborative field work and training between urban planners and public health professionals must take place. Perhaps leaving the ideas of our formal training behind seems risky and radical but, if implemented, this shift may prove to be a pragmatic and effective instrument for future public health responses and urban development.

Traditional aspects of health that influence urban planning

As we have shown, the practice of promoting health in urban populations by controlling exposure to the agents of disease first came to fruition in the mid-nineteenth century. This idea provided the initial indication that health and urban planning were directly associated, in part due

to the unpleasant effects of industrialization and urbanization. This portion of the paper will review some of the traditional aspects of health that influence urban planning in the past and the present.

Disease control

The first implication that public health issues had for urban planning evolved from the need to control disease. The conditions in new industrial towns in the nineteenth century were deplorable. Basic services such as adequate housing and safety were non-existent. Industrial workers lived in overcrowded conditions with no exposure to daylight or ventilation *(7)*. Under such conditions, diseases such as typhus, cholera, yellow fever and tuberculosis flourished, creating severe losses in both human and economic terms *(22)*.

The need to control disease was first manifested through the efforts of nineteenth-century sanitary reformers. Their objective was to restore to the city fresh air, pure water, open space and sunlight. In Britain, the Chadwick Report, *On the sanitary condition of the labouring population of Great Britain (23),* had a tremendous impact. In fact, the report led to the Public Health Act of 1848. It was the first time in history that the British had government made a commitment to safeguarding the health of its population *(24)*. This served as the foundation for disease control through urban planning-related initiatives such as sewerage, garbage collection, rodent control and mosquito abatement.

Illness prevention

As scientific knowledge became more advanced and more influential, the focus shifted to exploring means by which illnesses could be prevented. In terms of urban planning, this meant, for example, ensuring that living quarters had adequate light and ventilation and, more recently, minimizing exposure to toxins such as asbestos and lead.

Seasonal affective disorder (SAD) is one example of an illness that has implications for building design. By the process of human evolution, it became advantageous for people to sleep at night. Human beings have a hormone, melatonin, that is released at night to help induce sleep naturally. Generally speaking, daylight is the signal to the body to stop the release of melatonin and to stimulate other hormones that help to activate the body. The advent of winter and its shorter days is a natural impediment to maintaining proper regulation of melatonin. The now common scenario of people spending entire days indoors at work or at home exacerbates the problem *(25)*. So, designing our built environments to improve access to natural daylight is one way in which planning can contribute to preventing illnesses such as SAD.

Accident reduction

Urban planners have long been concerned with measures that help reduce fatalities and injuries due to accidents. The accident-reduction policies that are most traditionally aligned with the concerns of planners include such issues as traffic control and planning, pavement standards, planning for fire stations and standards for playground equipment. In this respect, planners have recognized that it is naive to think that the blame for accidents can be placed on humans alone. A more effective approach recognizes the interaction between humans and the environment, and the importance of an environment that does not place unreasonable demands on humans and takes into account human error. In other words, it establishes a "forgiving environment" *(26)*.

Safety

The desire to create safe places has, in some form, long been on the agenda of urban planners. However, as crime increases and more people fear for their safety, a different challenge is imposed on planners. One way to reverse the climate of fear and the deserting of public areas is to improve the design, planning and management of public areas so that they are visible, accessible and well used by a wide cross-section of the population *(27)*. In the United Kingdom, several design and planning initiatives set forth by local authorities, town centre managers and architectural liaison officers have sought to re-emphasize the need for planners and developers to take community safety seriously. These initiatives strive to communicate three basic principles in the planning and development of public spaces: (1) to maintain a physically clean environment; (2) to create a mixed-use environment with a variety of activity generators; and (3) to ensure that public areas are visible over longer distances, by installing good quality, uniform lighting *(27)*. Safety has perhaps long been on the agenda of planners, but as evidenced by the recent initiatives in the United Kingdom, the scope of safety concerns for planners has increased in recent years.

Health implications of traditional urban planning

In order to discuss aspects of urban planning that have had implications for public health, it is necessary to re-emphasize our definition of health. In terms of this paper, health is broadly defined. We are looking at health through a social lens, not as a medical model that defines health more narrowly as the absence of disease or infirmity. As noted earlier, one of the best descriptions that encompasses both the breadth and depth of health comes from the WHO Constitution *(17)*. We must remember that health is both a social issue and a political issue. Also, in order to improve the health situation in cities across the world, it is necessary to start where the people are and to involve them effectively in the *processes* of change. Lastly, a primary focus must be on changing basic conditions – risky environments – in order to create long-term, sustainable improvements. With these considerations in mind, we will begin to explore examples that serve as evidence of some of the health implications, both positive and negative, of traditional urban planning. The central principle here is to uncover and examine the potential unintended consequences of urban planning policy and decision-making. This information is crucial to understanding where intervention is needed in order to create healthy urban planning that considers the *whole* and is *organic*. In no way are the examples that follow intended to be all encompassing: rather, a first list to spark important future dialogue.

Safety

The safety of communities has vastly improved through building codes and other policies. Laws that ban the use of asbestos (a known human carcinogen) in building materials and those that seek to minimize domestic accidents through design are current examples of how planning can contribute to creating safe environments. At the same time, certain elements of design and planning can add to the poor safety conditions for community residents, especially for women and children. Jane Jacobs *(28),* in her book *The death and life of great American cities*, was the first to criticize outwardly the deeply rooted patriarchal emphasis of urban planning. Additional research has convincingly described how public spaces reveal the social status of women *(29),* and others have demonstrated how poor design exacerbates crime risk for all, regardless of gender, race, age or class *(30)*. These arguments regarding equity and safety have their theories of causation rooted in the work of urban planners, designers and developers, thus making it essential for planners to consider urban planning development policies in the context of the whole.

Pollution

Urban planning contributes to air, water and other types of pollution and at the same time plays a role in the prevention of it. Much of the developed world has become reliant on the automobile as the main mode of transportation. A "car-centric" culture has evolved, and this has undeniably been a major factor in air pollution. In the United States, transportation sources alone contribute 77% of the carbon monoxide released into the air *(31)*. The World Resources Institute (1998– 1999) reports that those who live in central and eastern European countries have the highest risk of exposure to air polluted with lead from gasoline. Urban development and planning have contributed to this reliance on the automobile. The building of the world's first motorway – the German AVUS, a six-mile combined racing track and suburban commuter route built between 1913 and 1921 *(8)* – followed by the *autobahn*, and the 1956 Federal Highway Act in the United States undoubtedly mark the beginnings of freeway sub-urbanization and a massive reliance on the automobile.

Besides outdoor air pollution, planners and designers must also consider indoor air pollution in developing housing and work spaces. According to Moeller *(31),* "urban populations and some of the most vulnerable people (the young, the infirm and the elderly), typically spend more than 95 percent of their time indoors". Therefore, the designs of homes and office space must create structures that are congruous with human activity and the needs of its most susceptible occupants.

Housing

Designers and planners must fully recognize the importance of housing environments. An appreciation of the social and ecological consequences for the *whole* community is key. For example, the spacious single-family home on a large lot may meet the needs of a single family, but such a solution is not feasible on a global level. When considering healthy housing design, it is necessary to strike a balance between the needs of the individual, of the family and of the larger world community.

Learning from mistakes made in previous efforts to provide quality housing is another vital component of healthy planning. Urban renewal was intensely popular in the 1960s and 1970s among North Americans and Europeans. Between 1964 and 1974, the London County Council built 384 high towers with the intention of providing quality housing and less oppressive conditions for the economically disadvantaged *(8).* This practice is also known as "slum clearance." In the developing world this practice is still frequently used in squatter settlements. In both situations, the results have been dismal failures *(25).* In fact, some communities were found to be stronger, more vibrant and more hopeful prior to their dislocation. A study conducted in the west end of Boston following a major slum clearance initiative recorded the reactions of dislocated residents. The study concluded:

> For the majority it seems quite precise to speak of their reactions as expressions of grief. These are manifested in feelings of painful loss, continued longing, general depressive tone, frequent symptoms of psychological, social or somatic distress, active work required to adapt to the alternate situation, sense of helplessness, occasional expressions of both direct and displaced anger and tendencies to idealize the lost place. At the most extreme, these reactions of grief are intense, deeply felt and, at times, overwhelming – similar in many ways to the grief experienced at the death of a loved one. *(32)*

This is a prime example of an unintended consequence of urban planning.

Dwelling types have also been linked to feelings of loneliness and isolation, particularly among the elderly and women. This is especially true for those living in high-rise apartments in the central city *(24)*. It could further be argued that such feelings of isolation are at their extreme among those living in high rises that are social housing projects, for these people have no other choice but to live in a place that isolates residents from one another and from the outside world based on their socioeconomic status. To save costs, the design of each dwelling unit is often repetitive, not taking into account the specific needs of a diversity of individuals, families and social activities. Isolation is intensified by the fact that social housing projects often look very similar and are easily identifiable, thus heightening the social stigma along with the increased feelings of loneliness among residents. Forcing people to live where they do not want to be and where they have not been given the opportunity to contribute to the process is essentially a recipe for social chaos. "Public spaces become barren zones where gangs wage war." *(25)*

Violence

The health issues that we have discussed thus far have a direct, logical link with urban planning. Violence as a health implication of urban planning is less direct. Our intention is to illustrate that the causal web underlying this public health problem has roots in patterns of urban development. Violence has already reached epidemic proportions in the United States and this trend is spreading. WHO's 1993–1994 European health for all monitoring report indicates a recent surge in violence. Dramatic increases in homicide rates were seen in the Federal Republic of Germany, Italy and Portugal. Recent statistics also indicate that drug-related violent crimes have doubled in both Denmark and Norway since the mid-1980s *(33)*. Because violence is a learned behaviour, it is preventable. Both less urbanized countries and developed countries will benefit by looking at the model of development in the United States as it relates to the causes of violence. Of six community risk factors related to violence, we will focus on three: guns, alcohol and community deterioration. The remaining three include media exposure, witnessing acts of violence and incarceration.

A study conducted in 22 countries revealed that the homicide rate among young males was 2.6 times higher in the United States (8.7 homicides per 100 000 people) than the next highest rate (Finland, 3.3 per 100 000) *(34)*. In 1991, firearms were involved in two thirds of the murders committed in the United States and a quarter of the aggravated assaults. "By virtue of the fact that guns are involved in the vast majority of homicides and suicides, their availability and lethality is a major concern that needs to be addressed." *(35)* The key word is *availability*. Through what means and policies can urban planning influence the availability of firearms? A first step might be to assess the locations of sites where firearms are sold, followed by an assessment of how zoning laws or other policies could contribute to reducing the availability of guns and ammunition *(36)*.

The drug most frequently associated with violence is alcohol *(35)*. In many ways, however, alcohol consumption is encouraged by the social environment. For example, in the United States, alcohol advertising is an accepted and legal business. Additionally, the majority of alcohol advertising and alcohol outlets are found in geographic communities that are inhabited primarily by people of colour, who are also the leading victims of violence. For example, a study in California revealed that in one geographical area where the population was just 9% Hispanic, there were 10 alcoholic beverage outlets per 10 000 people, but in central Los Angeles, where the Hispanic population was at 55% and the poverty level 17%, there were 24 outlets per 10 000 people *(37,38)*.

Community deterioration is also considered a risk factor for increased acts of violence. According to violence prevention expert Larry Cohen *(35),* if a community does not have adequate health services, schools, libraries, recreational facilities or access to food and parks, the community loses a major buffer against violence. Without these critical institutions, not only is a buffer missing, but there is no community infrastructure and thus minimal opportunity for community cohesion, resulting in intensified fragmentation. This information places urban planners in a position of great importance. It stresses the need for creating neighbourhoods that foster pride, respect and friendliness and ensure accessibility of services. It provides evidence of the importance of "liveable urban spaces located at the heart of the city or neighbourhood … [that] exemplify the essence of the community." *(39)*

In this brief outline of the root causes and community risk factors related to violence, we have begun to uncover how the availability of guns and alcohol and the process of community deterioration are linked to the field of urban planning. This exploration provides evidence of the multifaceted nature of community problems which call for multifaceted solutions. This argument maintains that urban planners must advocate policies that consider health, and that the unintended consequences of existing and future policies must be considered.

Fragmentation

Urban planning policies have led to an increased sense of fragmentation in urban communities. This is especially true in the United States, and we can look to examples from this region as a means of helping to prevent cities in Europe and elsewhere from following a similar path. Architectural and planning policies have resulted in fragmentation by emphasizing the needs of the individual over those of the community, thus making it difficult for people to develop and sustain social support networks. In other words, "urbanization and industrialization have decreased the likelihood that supportive social relationships can exist, even though they have created the conditions for a higher standard of living in material goods and improved sanitation" *(24).* Through time, the literature on social connections demonstrates that there is an increase in positive health outcomes among those with strong social ties. For example, Cassel *(40)* noted that the lack of meaningful social contacts resulted in higher rates of tuberculosis, schizophrenia, alcoholism, accidents and suicide. Fragmentation has not only affected communities in terms of people, but it also has economic manifestations. "For centuries, informal gathering places helped people to find out what was on their neighbours' minds and begin to form a consensus on issues that needed to be tackled. On the basis of informal discussions, people sometimes decided how to handle problems – without requiring the involvement of government agencies and other formal institutions" *(10).* In other words, informal interactions means less local government expense.

The development of the suburb has contributed to disconnection and fragmentation in multiple ways. In his research, Philip Langdon, an expert on the American suburb and why it has led to so much dissatisfaction, has uncovered three problems that are consistently identified by suburban residents. Financial constraints and lack of time for personal enjoyment are two main causes of increased dissatisfaction with suburban living; a third is the sense of disconnection *(10).* The tragedy is that most of the suburbs built in the United States over the past 50 years deny residents the opportunity to interact with others outside the home or work environment. The coffee shop, the local grocery store and other informal gathering sites that foster a sense of social connection have been zoned out of residential areas. An overwhelming, and arguably dangerous, amount of attention has been paid to the individual and family unit, resulting in aesthetically well designed individual homes but no sense of community. In order to address this issue in the best way,

public health professionals, urban planners, local officials and community residents need to be at the table promoting *organic processes* that consider the *whole*.

The deterioration of social ties is even more devastating among those who live in the poor inner-city neighbourhoods of the United States. The existence of poor neighbourhoods in American cities is mainly the result of the public policies of "planned shrinkage" and "benign neglect" *(41),* which seek to isolate and then ignore the impoverished communities or ghettos. This creates a domino effect that begins with the reduction of basic services such as fire control and garbage collection; the disproportionate dumping of dangerous chemicals and toxins into low-income communities is another factor *(42)*. Naturally, economic vitality decreases along with investment. Wallace & Wallace argue that public policies and economic patterns that increase marginalization not only further damage those areas but contribute to the diffusion of disease: "spreading disease and disorder can be interpreted as indices of the resulting social disintegration which is driven by policy" *(41).*

As a neighbourhood disintegrates, social ties begin to fray. Families leave (commonly referred to as "brain drain"), neighbours become increasingly hesitant to congregate on the streets and economic activity erodes. Economic opportunities for individuals and families become minimal, placing a huge burden back on the community. This all contributes to a sense of disconnectedness and fragmentation. Neighbourhood processes, or the lack thereof, do affect families and individuals. Loss of social networks and increased fragmentation does nothing to help people live independently; in fact, it forces people to turn to public assistance and vie for adequate shelter, which is yet another disruption to community ties. Some have coined this strategy of isolating poor neighbourhoods as "containment." However, the cultural assumption that the manifestations of the poor health conditions of these communities, which are occurring at epidemic rates (violence, AIDS, substance abuse), will be "contained" is in direct contradiction with human ecology. Wallace & Wallace's analysis demonstrates that the fundamental processes of human ecology are nested and linked. "The belief that sub-populations in one country are separate and do not operate as a single ecosystem affecting each other, has propelled the United States into a crisis of social and economic structure and of public health and public order which is so severe that even such crude measures as life expectancy show deterioration." *(41,43)*. Thus, architectural and planning policies that perpetuate "containment" and marginalize already disadvantaged communities are participating in creating the *unintended consequences* of increased fragmentation, disconnectedness and the diffusion of disease. Based on this, it seems that planners and decision-makers must work together to ensure that healthy public policies are being made. This is especially important in situations where planners lack the influence and power to make policy decisions.

Ecology

The links between the environment and health are not new to the field of public health. Many industrialized nations have policies to regulate clean air and water in addition to controlling housing and industrial hazards. For example, all European cities have policies and departments in place that regulate environmental hazards *(44,45)*. However, as our cities become more complex, so do the related environmental problems. These problems, ranging from loss of open space to climate changes, are felt locally, nationally and internationally.

According to the *World resources report*, three trends – the intensification of agriculture, industrialization and rising energy use – have the most profound impact on the physical environment and enormous potential to affect human health *(46)*. It has been postulated that the

driving forces behind these trends include population growth and urbanization, economic growth and consumption and the persistence of poverty and economic inequalities *(46)*. This provides further evidence of the need for healthy urban planning that considers the *whole*. Human health is one part of the larger global ecosystem and is sustained by this system. Damage to the ecosystem will both directly and indirectly damage human health throughout the world (Table 1). Thus, in order to sustain and re-establish ecosystems across the globe, the design profession must consider the sciences, including ecology and social science, as major informants in the process. Unfortunately, such a relationship has been thwarted by an over-emphasis on aesthetics and individualism, set apart from the whole.

Table 1. Climate change and the related health effects

Direct impacts	
Exposure to thermal extremes ⇒ ⇒ ⇒	Altered rates of heat- and cold-related illness and death
Extreme changes in weather patterns and intensity of weather events ⇒ ⇒ ⇒	Deaths, injuries, psychological disorders; damage to public health infrastructure
Indirect impacts	
Eco-system disturbances: • Shift in range and activity of vectors and infective parasites ⇒ ⇒ • Modification in local ecology of waterborne and foodborne infective agents ⇒ ⇒ ⇒ ⇒ • Food production (especially crop) is altered due to changes in climate, weather events and associated pests and diseases ⇒ ⇒ ⇒ ⇒	Altered geographic ranges and incidence of vector-borne diseases Altered rates of infectious diseases Malnutrition and hunger leading to impaired human development
Population displacement associated with rising sea levels and infrastructure damage ⇒ ⇒	Increased risk of infectious disease and psychological disorder
Biological impacts from air pollution ⇒ ⇒	Asthma and allergic disorders; deaths and illness due to respiratory disorders
Social, economic and demographic changes due to effects on the economy, infrastructure and resource supply ⇒ ⇒	Wide range of public health consequences

Source: World Health Organization *(47)*.

Healthy urban planning: important questions

We have made a point of not developing an accepted list of health-related issues, as we believe that any list must be developed by and be specific to a particular city. However, the health indicators and health outcomes discussed above provide a useful tool to help guide future thinking. The questions raised in this section are intended to stimulate such thinking.

In citing examples that imply an interconnection between the two fields, some fundamental questions become evident. The first question to pose, and arguably the most important, is: What is healthy urban planning? In the simplest terms, it should mean planning that (a) is not unhealthy and (b) promotes health. More specifically, urban planners must understand and accept that their decisions have consequences, both intended and unintended, that could

potentially lead to ill health within communities. In addition, there are techniques and skills that planners can use to promote the building of strong, healthy neighbourhoods, towns and cities.
To cover all the questions that are inherently linked to this initial inquiry is impossible. However, a few are universally applicable, regardless of the specific city, town or community:

- What are the potential unintended consequences of the planning efforts?

- Are the planning efforts addressing the symptoms of a problem or the root causes? For example, are housing programmes that are aimed at the poor simply displacing this population, or are they truly working to solve the underlying issues behind the scarcity of safe, clean, affordable housing?

- Are planning efforts working on behalf of healthy urban public policy? A system must be in place that enforces checks and balances between policy-makers, policies and plans.

- What are the direct and indirect effects of planning decisions? How will these decisions affect the physical, social, political and economic environments? Politicians, planners, government officials and citizens must all be able to understand fully the reasoning and implications behind policies, that is, asking questions that look at the whole picture, not just one part.

We cannot express strongly enough our belief in the importance of asking such questions in urban planning practice. This promotes critical analysis of the decisions being made regarding the future of cities. Such questions are indispensable to the *process* of healthy urban planning and will encourage *organic development*, thus creating places that foster health for all and promote sustainable development.

3. Today and tools for tomorrow

Urban health challenges of today

The urban health challenges facing industrialized nations across the world are complex and multifaceted. In 1900, about 80% of the world population lived in rural areas; it is estimated that by the year 2000 this same proportion will reside in urban areas *(48)*. Industrialization and mass immigration place greater pressure on social and medical services along with increasing demand for housing and jobs in urban areas. Further, such an influx of people demands culturally sensitive planning. Public health professionals and urban planners need to understand for whom they are planning by starting with the people and generating their plans accordingly. This bottom-up approach is inherently different from the standard approach and is thus one of the urban health challenges of today.

Not only has the definition of health changed, but the leading causes of death in developed nations have shifted from infectious diseases to chronic conditions. This has created a new set of challenges for public health and calls for multisectoral prevention. The field of urban planning must look beyond the traditional ways in which it has approached issues of health (e.g. building codes and disaster preparedness), as these policies do not take into account the changing nature of health and that the modern industrialized nations have generated new disease-producing agents. Toxins, firearms, alcohol, tobacco and motor vehicles, among others, are some of the leading killers in the industrialized world *(49)*. Additionally, public health research suggests that disease occurs more frequently among those who (a) have fewer meaningful social relationships, (b) are in lower hierarchical positions and (c) are disconnected from their biological and cultural heritages *(24)*. Both the literature and statistical trends reveal the complex and interconnected

nature of modern ills and call for a broader perspective – one that moves away from the traditional health concerns of urban planning and into a comprehensive realm which links the functions of urban planning and the creation of strong, healthy and vibrant neighbourhoods, towns and cities.

In 1990, approximately 45% of Europe's population lived in cities of more than 50 000 inhabitants. Moreover, some European cities are experiencing growing pains resulting from having to absorb high numbers of immigrants. Vienna receives between 20 000 and 30 000 new immigrants annually and approximately 350 000 people have immigrated to Athens since 1990 *(48)*. The 1997 *Human development report (50)* provides information regarding a breadth of health indicators. The following table highlights some of the conditions in eastern, western and southern European countries, and notes the conditions in industrialized countries as a whole for purposes of comparison (Table 2).

Table 2. Urban conditions in selected groups of countries

	Annual population growth rate (%) 1994–2000	Population aged 65 and above (as percentage of total population 1994)	Greenhouse gas emissions (percentage share of world total)	Alcohol consumption per capita	Number of prisoners per 100 000 population	
					1987	1993
Eastern Europe and CIS	–	10.9	–	–	–	–
Western and southern Europe	0.2	15.0	13.00	10.0	73	85
European Union	0.2	15.2	15.00	9.6	77	87
Industrial countries	0.3	12.9	50.00	8.0	–	–

Source: United Nations Development Programme *(50).*

Social determinants of health: the solid facts (4) identifies key standards that are crucial to addressing urban health in industrial European countries today. The booklet emphasizes ten interrelated areas that point to the social determinants of health, including:

1. the need for policies to prevent people from falling into long-term disadvantage
2. how the social and psychological environment affects health
3. the importance of ensuring a good environment in early childhood
4. the dangers of social exclusion
5. the impact of work on health
6. the problems of unemployment and job insecurity
7. the role of friendship and social cohesion
8. the effects of alcohol and other drugs
9. the need to ensure access to supplies of healthy food for everyone
10. the need for healthier transport systems.

In sum, these aspects provide the basis for higher standards of health. Their strength lies in the underlying messages that point to social and economic factors of causation to both negative and positive health outcomes; more importantly, that social and economic conditions are strongly correlated to an individual's ability to have a healthy lifestyle. Thus as WHO notes, "the booklet is therefore intended to ensure that policy – at all levels in government, public and private

institutions, workplaces and the community – takes proper account of the wider responsibility for creating opportunities for health" *(4)*. Owing to the breadth of work in which urban planners are involved, it is natural for a stronger emphasis to be placed on the important link between ensuring the public's health and urban planning. Therefore, it is essential for urban planners to uphold the aforementioned standards. This will serve as a major challenge facing the profession today and into tomorrow.

Developing health as a key principle in urban planning

What does health as a key value in urban planning look like? There is no one answer to this question. Rather, the answer is individually linked to each neighbourhood, town, community and city. There are, of course, many different opinions as to what constitutes a healthy city, depending upon one's discipline, values and point of view. Nevertheless, general principles, theories and common parameters can be applied in working towards healthy urban planning. Health is established through the interaction of all aspects of environmental and living conditions with the individual.

Research by Thomas McKeown provides undeniable evidence of the need for planning principles to consider health. He investigated the various measures used from the mid-1800s to the present that have resulted in improved general health and a lower mortality rate, and concluded that advances in the medical system had a less significant impact on general improvements in health than did changes in the physical and social structure of society *(51)*. In other words, community engineering in urban contexts contributed greatly to improved health prior to the introduction of the medical services that have become the focus of health and disease today. McKeown's research provides tremendous support for the notion that physical design affects behaviour. Therefore, planners have a major responsibility to contribute to the development of primary prevention intended to thwart the spread of ill health and the related human and economic losses.

The WHO Healthy Cities Project Office has developed an understanding of health that relates to all principles of healthy urban planning. Again, these principles are aimed at providing a framework to guide those involved in the design and development of cities. Although they are intended as general guidelines, these principles are crucial to the *process* of creating and sustaining healthy cities. The principles, as set out by the WHO Healthy Cities Project *(44,45),* are as follows.

Equity: All people must have the right and the opportunity to realize their full potential in health.

Health Promotion: A city health plan should aim to promote health by using the principles outlined in the *Ottawa Charter for Health Promotion* (Annex 1): build healthy public policy; create supportive environments; strengthen community action and develop personal skills; and reorient health services.

Intersectoral action: Health is created in the setting of everyday life and is influenced by the actions and decisions of most sectors of a community.

Community participation: Informed, motivated and actively participating communities are key elements for setting priorities and making and implementing decisions.

Supportive environments: A city health plan should address the creation of supportive physical and social environments. This includes issues of ecology and

sustainability as well as social networks, transportation, housing and other environmental concerns.

Accountability: Decisions of politicians, senior executives and managers in all sectors have an impact on the conditions that influence health, and responsibility for such decisions should be made explicit in a clear and understandable manner and in a form that can be measured and assessed after time.

The right to peace: Peace is a fundamental prerequisite for health and the attainment of peace is a justifiable aim for those who are seeking to achieve the maximum state of health for their community and citizens.

The strategy behind such a framework is manifold. It places the issue of health on the agenda of urban planners, promotes healthy public policy and serves as the initial steps towards addressing complex problems that shape the health of cities.

Theoretical arguments support the need for health to become a key principle in planning, and they help to shape what healthy urban planning means as well. As health moves onto the agenda of planners, two juxtaposed ideologies typically unveil themselves. One supports a closed system and is more aligned with traditional aspects of planning in that it attempts to *control* the environment; the other supports an open system. The closed system, which has also been referred to as a mechanistic world view, has its roots in the philosophy of René Descartes *(52).* This ideology contends that the whole is equal to the sum of its individual parts and that knowledge is gained by studying parts independent of their context. Lastly, the theory holds that parts, objectives and products are primary over process. The ideology of the closed system translates into planning policies that are linear, static, repetitive, isolated, unsustainable and fragmented. This type of underpinning has contributed to the state of health in the cities of today.

The antithesis of a closed system, the open system, which is also referred to as an ecological world view, considers the whole as greater than the sum of the parts *(52).* It is a holistic theory, contending that all knowledge is contained within a context and that humans are part of the same organic system as nature. When translated into planning policy, this ideology focuses on installing an infrastructure that enables all the pieces within the system to enhance and build off one another. Thus, an open system creates a dynamic balance, adaptability and flexibility and a constant state of flux. This ideology is closely aligned with the arguments laid out by Jane Jacobs in her work *The death and life of great American cities (28).*

The terms "open" and "closed" planning are not often referred to in everyday practice, yet policies and planning decisions are made daily with these deeply rooted ideologies in mind. To help demonstrate the difference between the two we will put them into context. Consider the process of siting a solid waste landfill. In a closed system, the process will focus on the landfill alone. The decision-making team is comprised of city and municipal employees, a developer and firms bidding to manage the site. In some instances, the short-term costs will overshadow any discussion about the long-term costs or consequences. In contrast, an open ideology would place a stronger emphasis on the whole picture. It will consider environmental degradation and the effects of a landfill on the neighbouring communities, and encourages and values community-based participation and attempts to plan for unintended consequences.

Such a radical shift in thinking, moving from a closed to an open approach, can be very uncomfortable for planners and policy-makers as it directly contradicts what everything in our environment teaches us – the importance of control. However, in the light of the conditions that exist in urban areas of developed countries, a new paradigm is necessary. Additionally, as health

becomes a principle value in an open planning system, the root causes of health problems will be addressed as opposed to seeking remedial solutions.

Alternative approaches: tools, techniques and outcomes

There is no one single formula for developing a healthy city. Therefore, the tools and techniques used to initiate an alternative, healthy urban planning process will undoubtedly vary from city to city, neighbourhood to neighbourhood and group to group. Whatever the overall process, it must take into account the various cultures, religions and lifestyles in the community. Healthy urban planning does not view multiculturalism and diversity as problems to be overcome but rather as rich opportunities waiting to be seized. Urban planning must be sustained by dynamic leadership styles and open to various configurations. For example, it should be open to collaborative and bottom-up actions. Healthy urban planning thus makes room for citizens as leaders and requires catalytic leadership from planners. Planners become effective public leaders when they serve as catalysts who reach beyond the traditional boundaries to engage, discuss and mediate among broad groups of stakeholders *(53)*. Any approach must strive to put in place an infrastructure that understands the many interconnected pieces and works to put them all together. Lastly, alternative approaches to urban planning must evolve from existing key values, mandate shared responsibility and not strive to make everyone uniform, but rather to gather people to discuss the interconnected health issues within the urban context.

Planners as educators: ten commitments

The public health profession has spent much time reasserting more effective ways to make a truly positive public health impact. Much of the research and practical experience has come out of community-based public health. Specifically, these efforts have developed parameters or "commitments" for community health educators interested in organizing and building communities. Merry Minkler's "ten commitments of community health education" can serve as a useful tool to promote healthy urban planning. The commitments are as follows *(54).*

1. **Start where the people are:** If we start with the people, as opposed to our own organization's agenda, we affirm our commitment and faith in the community's ability to assess their strengths, needs and future goals.

2. **Recognize and build on community strengths:** Never dismiss the importance of identifying and building on a community's assets. In the planning, public health and social service fields, it is too often the case that the focus is on the needs and deficits of a community, which perpetuates the loss of spirit and hope in communities.

3. **Honour thy community – but do not make it holy:** What this suggests is that, on the one hand, we do need to continue and deepen the tradition of respecting and working in partnership with communities. At the same time, we must strive to uphold personal ethical standards and those of the profession. In other words, we should not let blind faith in the community prevent us from seeing and acting for social justice.

4. **Fostering high-level community participation:** This commitment reflects a profound belief in the people and a recognition that professionals have very real limitations in their knowledge of what is truly happening at the community level.

5. **Laughter is good medicine:** Facing the social ills that exist today can be very painful and is extremely difficult work. The severity of the issues addressed should not prevent us from remembering that laughter is good medicine.

6. **Health education is educational – but it is also political:** Promoting and improving health status requires all involved to reframe health problems and their solutions in terms of their political, economic and social contexts.

7. **Thou shalt not tolerate the bad "isms":** In reframing issues we must look at how race, class and gender interact to determine how health and life opportunities are differentially distributed.

8. **Think globally, act locally:** In promoting health there is a delicate balance between working on a micro and a macro level. This vital balance will ensure that local needs are met but that broader, macro-level changes will also be sustained. In addition, others suggest amending this statement so as to ensure that we think globally and locally together and then act accordingly.

9. **Foster individual and community empowerment:** Building on many of those already mentioned, this commitment encourages empowering health education. It is not concerned with giving power, but rather with creating environments in which individuals and communities can take the power they need to transform their lives.

10. **Work for social justice:** This emphasizes organizing and advocating public health and social justice on a broad level to promote systematic changes.

Minkler's ideas about the necessary commitments of community health education are easily translated into commitments that should be upheld by urban planners as well. In a sense, urban planners are health educators within the context of healthy urban planning. The future of the planning profession will indeed require planners to work on macro and micro levels in order to facilitate and mediate effectively between the needs of the community and their own organization's agenda and to promote policies and designs that establish sound infrastructures. The ten commitments of community health education adapted for current and future planning professionals would ensure that increasing attention is paid to the *whole*, resulting in healthy urban planning. This is not to suggest that participatory approaches are the magic bullet to creating healthy urban planning. It is merely a piece of the larger puzzle.

Community and systems as tools for health

As the public health pendulum swings back to its origins, a clear change has occurred in the terminology used and the skills needed from professionals whose purpose is to serve the public. One such term that has embedded itself in all aspects of the health profession is "community." Within the context of prevention and promotion programmes, we commonly hear such phrases as community participation, community education and community empowerment. This popular conception of community is one that has long been missing. It does, however, pose a hidden dilemma for professionals working to serve the community in the real lack of experience and training for understanding the true community *(55).* Urban planners and public health professionals alike are often highly trained in managing and working within the system, but they are poorly adept at crossing over the frontier into the community, thus leaving professionals confused and frustrated, which further perpetuates the public's distrust of local public health organizations and community development offices. The dilemma then becomes how can the system and the community work together to forge active partnerships that build healthy communities. McKnight *(55)* contends that professionals need to view both the system and the community as tools to achieve a healthy society. In order to understand these two distinctive tools, a critical analysis of their design, capacities and appropriate uses is necessary.

Systems are normally best exemplified by an organizational chart connected by lines of authority and responsibility. It assists a few people to administer and manage the work of many. Plus, it ensures standard output and quality control. Systems also depend on another element of social organization: a consumer or a client *(55).* Whether the system is for profit or not for profit, the western world has created the consumer/client label that is now pivotal in the development of

systems. "Therefore, the tool we use called a system is designed to control people, to produce uniform goods and services of quality and to expand the number of people who act as consumers and clients." *(55)*

What kind of tool is the "community"? The term is rather vague, as it has no set parameters and people can belong to one or several communities, so it is difficult to provide one concrete definition for community. However, communities do share certain common functions *(55)*. Alexis de Tocqueville, a French statesman and writer, was the first to analyse and describe the community as a social tool. His observations of North Americans in the early nineteenth century gave reason to conclude that this social tool, also referred to as an association, provided the means for self-generated gatherings of common people who had the power to identify problems, discuss the best solutions and act to implement those solutions. De Tocqueville also noted that through the support of multiple associations a unique forum of citizen power was created *(56)*.

Unlike systems, the modern community associations are each unique in their shape, design and use. Foremost, community associations are dependent upon the active consent of the members. Associations are a forum in which unique contributions are encouraged, as opposed to systems, which favour standardized outcomes. Lastly, community associations require citizens, not clients or consumers *(55)*. "A community of associations, then, is a social tool designed to operate through consent, combining the creative uniqueness of the participant into a more powerful form of expression." *(55)*

In order to build healthy cities, two tools are needed: one is a system, the other is a community. Over the years we have a seen an influx of systems which have squelched the activity and power of community associations *(55)*. Each tool is juxtaposed to the other, creating a unique and serious dilemma for professionals. Thus, the trick is for professionals to recognize the strengths of both tools and to engage in a leadership style that employs them effectively. As we have demonstrated, the two are so different that one cannot be substituted for the other. It is crucial that planners recognize that systems can displace or enhance communities. Creating healthy cities requires professionals (a) to understand the kinds of information that will enable citizens to design and solve problems, (b) to direct resources to enhance community associations, and (c) to focus on proliferating the gifts, capacities and assets of local citizens and their associations *(55)*. With a thorough understanding of the tools, professionals will be better equipped to cross over the frontier to the community while restoring the hope, spirit and power of citizens' associations. The WHO Healthy Cities document *Community participation in local health and sustainable development: a working document on approaches and techniques (57)* provides information and guidance on a variety of ways to improve community participation in decision-making processes.

Catalytic leadership

The term "leadership" often conjures up an image of an authoritative, "take-charge" corporate leader, such as one that brings new life and vigour to a failing organization. The type of leadership that is needed to address the public problems confronting developed countries today is quite different, however. Throughout this paper we have attempted to demonstrate not only the complexity of public problems, but also their interconnectedness. Jeffrey Luke *(53)* assesses this connectedness: "Public problems are interconnected, they cross organizational and jurisdictional boundaries and they are inter-organizational. No single agency, organization, jurisdiction, or sector has enough authority, influence, or resources to dictate visionary solutions. Thus, contemporary strategies for organizational leadership are less effective in addressing public

problems in an interconnected world." In other words, healthy urban planning requires a different set of leadership skills – catalytic leadership skills.

Catalytic leadership is not a tool that emanates from the traditional top-down styles; rather, it emerges from all walks of life. It seeks to involve public officials, individuals from the private, nonprofit and education sectors, community activists and volunteers *(53)*. Luke sets out four specific, interrelated tasks that he believes can together have a catalytic impact on addressing public problems and can encourage the growth of healthy cities. The four tasks are as follows *(53)*.

1. Focus attention by elevating the issue to the public and policy agendas.

2. Engage people in the effort by convening the diverse set of individuals, agencies and interests needed to address the issue.

3. Stimulate multiple strategies and options for action.

4. Sustain action and maintain momentum by managing the interconnections through appropriate institutionalisation and rapid information sharing and feedback.

Such a process is neither formal nor linear. It requires an ability to move forward and spiral back to previous tasks. The nature of catalytic leadership is more artistic and organic than mechanical and sequential *(53)*. Each one of these tasks involves a complex set of activities and processes that in our view must be present in any attempt to address and hinder further growth of the interconnected problems of today. This set of tasks is vital to the urban planner's tool-box.

Healthy community assessment

Whatever the situation, before any proposal can move forward a justification is normally required. Thus, community health assessments have become integral to processes ranging from providing easier access to health care to improving transportation systems. However, Hancock & Minkler *(58)* pose three questions that seek to set out the critical difference between *healthy community assessments* and *community health assessments*: Whose community? Whose health? and Whose assessment? These questions imply that an assessment should be of the community, by the community and for the community if it is to truly promote health. Past research has also suggested that needs assessments are far from neutral and objective and that, in fact, they have become a means to serve political purposes in order to stop social change and maintain the status quo *(59)*. Public health professionals and urban planners whose work is driven by community health assessments must understand and promote the use of healthy community assessments, if they are truly interested in creating health for all.

A better understanding of the difference between *community health assessments* and *healthy community assessments* depends on an understanding of the framework that has been set out for determining a healthy community. The most widely accepted definition of a healthy community was promulgated by Hancock & Duhl for WHO in 1986: "A healthy city is one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential." *(60)* One of the most important aspects of this definition is that it emphasizes process over outcome, thus suggesting the need for new tools in order to engage in healthy community assessments. Hancock & Duhl propose the following 11 elements as key parameters for healthy cities, communities and towns.

1. A clean, safe, high-quality environment (including housing).

2. An ecosystem that 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 life, health and wellbeing.

5. The meeting of basic needs (food, water, shelter, income, safety, work) for all 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 economy.

8. Encouragement of connections with the past, with the varied cultural and biological heritage and with other groups and individuals.

9. A city form (design) that is compatible with and enhances the preceding parameters and forms of behaviour.

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).

It is important to note that only one of these 11 parameters refers directly to health status, which is the usual focus of a community health assessment. These key elements can serve as guidelines for urban planners in understanding what they need to assess.

Understanding *what* to assess is critical, but even more important is understanding *how* to make an assessment and, specifically, how this process can contribute to the health of a city. These questions require careful consideration of the types of information that are collected and of the degree of contact by planners with the community during the process *(58)*.

There are two main sources of data when collecting information on communities: studies and stories. Studies are normally based on formal theory and are rich in data. Studies are typically carried out and highly regarded by academics and professionals. The limitations with this form of data collection is that it is rarely transferable to the community. In contrast, stories represent the collective wisdom of a community. They often contain knowledge that is adaptable and applicable to other communities. These stories rarely contain hard data, however, and thus professionals and academics generally find little use for them *(58)*. Our intention is not to say that one tool should supersede the other, but that each offers unique strengths and that, when used together, they can be powerful allies in multiple scenarios.

The level of contact with the community should also be considered when conducting a healthy community assessment. The various methods of engaging with a community provide useful information, but each technique involves varying processes and outcomes. The first approach is the no-contact method. This is often the first category of data that is sought out in an assessment, and it normally includes demographic and social indicators such as morbidity and mortality rates. Additionally, no-contact methods may include departmental reports, newspaper articles or other resources that provide pertinent information. This method embodies one major flawed assumption, however, that "the community needs and problems that appear in official statistics are representative of community problems" *(59)*. The observational method is a second approach that can be utilized to obtain relevant information about a community, and has also been referred to as the "windshield tour" *(58)*. With this method, the planner or public health professional is advised to walk or slowly drive through the community on different days and times to observe potentially useful indicators of health and wellbeing. A third approach that promotes further

contact with the community consists of interactive methods. The various techniques of this methodology include key informant interviews, door-to-door surveys and small group discussions to gather data and stories about a local community. Interactive techniques can generate incredibly useful data, but they can be disempowering if the only information that is sought is about the needs and problems of the community, while ignoring or discounting the participants' knowledge of their community's resources and assets *(58)*.

In summary, Hancock & Minkler contend that each method of gathering information about a community offers various levels of effectiveness and that both studies and stories are key components of the assessment process. Additionally, the best way to capture a true and full picture of a community's health is by employing multiple methods that seek to empower citizens in the process, resulting in a *healthy community assessment (57)*.

Building and maintaining coalitions

The rise in the popularity of creating and maintaining effective coalitions can be credited to a multitude of factors. Much of the non-profit sector has seen the advent of collaborative efforts come as a result of heightened threats of decreased funding, coupled with an increasing number of foundations that are likely to provide funding only to organizations that consolidate and streamline their services. We contend, however, that in addition to fewer resources, even more complex forces lay at the roots of the emergence of coalition-building. Moreover, engaging in an analysis of these roots is fundamental to building and maintaining coalitions effectively.

As our lives have become more complex over the years, so have our cities and our social crises. On top of this growing complexity, there is a growing sense among an alarming number of professionals that they are no longer competent to deal with such current social problems. In fact, many feel disenchanted with the idea that social change is even possible. As a result, the hope and spirit of both the least and the most powerful are being drained *(9)*. Further, as training for professionals becomes more and more specialized, these professionals lack the breadth of skills necessary to address the great complexity of social ills. We contend that this sense of loss of direction among professionals, combined with the narrowing of their training and expertise, has also contributed to the increased emphasis on coalition-building. Fritjof Capra *(61)* assesses this trend as follows:

> It is a striking sign of our time that the people who are supposed to be experts in various fields can no longer deal with the urgent problems that have arisen in their areas of expertise ... None of them, however, identified the real problem that underlies the crisis of ideas: the fact that most academics subscribe to narrow perceptions of reality which are inadequate for dealing with the major problems of our time. These problems … are systemic problems, which means that they are closely interconnected and interdependent. They cannot be understood with the fragmented methodology characteristic of our academic disciplines and government agencies … A resolution can be found only if the structure of the web itself is changed, and this will involve profound transformations of our social institutions, values and ideas. As we examine the sources of our cultural crisis, it will become apparent that most of our leading thinkers use outdated conceptual models and irrelevant variables.

If there is validity in this evaluation, which we believe there to be, then three important points must be recognized: (a) there are no longer truly individual professions; (b) planners must learn how to create and maintain coalitions; and (c) catalytic leadership skills are crucial. All of this points to the importance of coalition-building as a technique for the planner's tool box.

Based on this analysis, we intend to provide a basic framework for effective building of community coalitions and partnerships. First, it is necessary to understand the meaning behind the term "coalition." We believe that coalition refers to diverse groups working together to form cooperative and synergistic alliances. Using an open-system framework, Prestby & Wandersman *(62)* identify four key elements that must be addressed in order that collaborative efforts should function properly: resource acquisition, organizational structure, actions or activities and accomplishments. In terms of resource acquisition, resources should primarily consist of those brought to the table from coalition members and other external sources.

Maintaining coalitions requires a certain set of skills and resources as well. Specifically, it requires skills and resources that work towards obtaining and organizing the coalition's assets and members. According to Wandersman et al. *(63),* a coalition's existence depends on the group's ability to set goals, mediate between individual and group needs and employ effective leadership styles and decision-making processes. It is not necessary for each individual to have all these skills, but as a whole the partnership should embody these characteristics or have access to such resources.

Engaging in goal-related actions and activities is another key component of sustaining a coalition's vitality. Two types of activity are identified as essential: target activities and maintenance activities *(63).* Target activities seek to generate the products for which the coalition was created. Maintenance activities include sustaining current membership, recruiting and training new members, preparing current members for future leadership roles and providing conflict resolution. It is not uncommon for maintenance activities to be squelched by target activities, as they tend to lack the "hype" and momentum of target activities *(63).* For this reason, close monitoring is recommended to insure against an insufficient balance between these activities.

The final component needed for maintaining a coalition involves assessing the coalition's accomplishments. This is often referred to as the bottom line. Accomplishments can be measured as both short- and long-term changes *(63).* Both are of equal importance, considering the complexity of modern social ills. Quick-fix solutions that produce immediate results time and time again fail to produce long-term changes. Thus, patience among the coalition members is key, as is an understanding that it may take years before any long-term results are actualized. Formal and informal evaluations are the typical tools used to assess a group's accomplishments *(63).*

The use of community coalitions and partnerships as a tool for urban planners in fostering social change is both new and exciting. Despite the limited literature about this young topic, it is our contention that, if coalition building is a technique that is employed by urban planners in the future, these partnerships will prove to be very powerful tools in shaping healthy cities, for in many ways they represent the whole and typify up-from-the-roots, organic planning.

Planning for the life cycles

In order to ensure health for all, we posit that the standards of health must consider the most vulnerable populations. This approach is often used in the setting of environmental health standards. For example, the standard for the maximum allowable levels of lead exposure is set for the most susceptible population, in this case children. This concept relates to urban planners: "To create a liveable city for all the community, one must design for its weakest members,

children, the handicapped and the elderly. A city that is hospitable to these groups will foster a sense of wellbeing among all its citizens." *(39)*

Research by Duhl & Lindheim found that planning professionals rarely create spaces that are geared towards the functions of different ages. For example, they discovered a scarcity of places that matched the needs of adolescents. Additionally, their research explored how different cultures have different space requirements for birth, death, sleeping and "living room" activities. For example, outdoor spaces are more commonly used in southern climates. On the other hand, in northern climates, offering the opportunity for distance was important, so that people do not physically touch. Communal as well as outdoor and private living differs according to both age and culture. As a result of their research, Duhl & Lindheim taught a course on the life cycle aimed at planners, architects, health professionals and those in the human services.

As noted earlier, there can be negative implications if planners do not subscribe to and advocate techniques that take a broad, community-wide perspective. The result is much as we see today: cities built primarily for working male adults, with little or no consideration given to women, the handicapped, children, or the elderly in the planning process. Setting standards to ensure that planning considers all aspects of the life cycle can be accomplished either formally or informally. The most important component of the technique is the coordination of design, development and social elements. In other words, planners must accept and adopt a clear vision that understands the *whole*.

Summary

The aforementioned tools and techniques can aid the planner in addressing the root causes of complex problems and reveal unique community assets. The manifestation of such a process is healthy urban planning. We acknowledge that the varying tools and techniques discussed so far are a radical shift from the traditional skills of the planner – that is, the planner who is mainly concerned with spatial analysis and physical design. Additionally, we recognize that there are an infinite number of possible tools, some of which may work in certain communities and not in others. Our point is that as the world and its problems become more complex, so do the solutions, so that planners need to be better equipped to deal with the complexity. This set of tools can serve as a springboard for planners to initiate the *organic processes* that will begin to put the fragmented pieces back together.

4. Worldwide healthy urban planning

Case studies

The final segment of this paper provides real examples of healthy urban planning projects, both large- and small-scale. The following illustrations align themselves with the formal and informal theoretical underpinnings of this document. We hope that these examples will serve as additional resources for planners and provide hope that change is indeed possible.

Portland, Oregon, USA

European cities have long benefited from the provision of open spaces. For example, in Italy "piazzas" and in France "places" are commonly found – places where people can convene for multiple purposes. Unfortunately, the United States does not have this tradition. However, one man who had extraordinary vision and an understanding of the art behind catalytic leadership

made this European tradition a reality for the American city of Portland, Oregon: former Governor Tom McCall.

At a time when the city was beginning to lose its vitality, similar to other American cities in the 1980s, the then Governor Tom McCall called for a new Portland, one that had a vital heart where both visitors and residents could feel the special qualities of the Pacific Northwest. From this vision and the work of many people, the city of Portland reinvested in its downtown by purchasing and then razing a parking garage in order to build Pioneer Courthouse Square. This plaza, located in the centre of downtown Portland, serves as a transfer point for both local bus and regional light-rail lines. Portland residents often refer to this area as "Portland's Living Room." Pioneer Courthouse Square has enough open space to hold summer concerts and other community celebrations. As Tom McCall intended, this plaza is the true heart of the city.

Salzburg, Austria

We use Salzburg as an example because this city's experience demonstrates excellent citizen participation techniques, and it advocates pedestrian transportation. Most of the growth experienced by the city of Salzburg has occurred over the last few decades, and much of it was viewed by the citizens as ugly, formless and inhuman *(39)*. At the height of the city's growth, coupled with the threat of construction of a new superhighway, citizens formed groups to advocate for the "old city." Individuals from this activist citizens' group were eventually elected to positions on the City Council and have today transformed the citizen participation process in Salzburg.

From this transition, Salzburg has seen four major reforms. The first is an accepted plan for a green belt around the city and the dropping of past policies that set aside 70% of the city's land reserves for new construction. Secondly, the citizens' groups initiated a project to renovate the historic city centre. Thirdly, Salzburg has begun work on massive architectural reform. Lastly, a completely new traffic policy for the entire city has been conceived, giving first priority in all political and planning decisions to pedestrians, second to cyclists, third to public transportation and last to the car. A case in point: in 1982 the city of Salzburg began implementing a pedestrian zone that had been promised for more than 15 years. Due to conflicts of interest, no resolution could ever be achieved to begin the project, but through Salzburg's experimental method of working directly with the citizens to carry out the planning process, plans for the pedestrian zone were created and agreed in a mere six months. Moreover, two years after completion of the plan, 80% of the population approved of the development, 10% were undecided and the other 10% would like to have seen an even more liberal approach. In Salzburg's case, healthy urban planning not only resulted in positive human health effects, but also in positive economic effects *(39)*.

Toronto, Canada

The city of Toronto has demonstrated the importance of *process* while addressing the issue of safety in community parks. Additionally, the Toronto model illustrates the effectiveness of partnerships between governments and communities in creating healthy living environments. The city felt that there was a need for greater citizen participation, but it had failed time and time again to capture the citizens' interest. In an attempt to find unique forms of citizen participation, city employees began to *listen* to residents and noted that the chief concern was safety. Therefore, city planners, city council members and other local government employees began to promote safety through planning and design. Their commitment to listen forced the professionals to reframe their priorities, which resulted in members of the community becoming actively

engaged in the planning process. The initial efforts have resulted in two highly influential committees among city council members: the Safe City Committee, which has an official position within the council and METRAC, or Metro Action Committee on Public Violence Against Women and Children, which has its roots in the community. Together these groups have produced an innovative and responsive structure to support active community participation *(64)*.

In another example, Toronto planners found that through a simple and cost-efficient survey they could access public opinion, among other benefits. The survey itself was local, community-based and culturally and linguistically sensitive. It had two main objectives: (a) to survey park users' concerns, and (b) to gather ideas on how parks could be made safer. In the end, a third objective was also met; the survey stimulated public interest and awareness and enhanced community involvement and interaction among individuals and service providers. The planners themselves concluded that "the process of public participation and the method of consultation were as significant as the survey results" *(65)*.

In both Toronto examples, the techniques were not embedded in complex methodologies; rather, they were simple and economically feasible. Toronto planners and local government officials admitted that they were not the experts and that value can be found not only in reaching the goal, but also in the process. As simple as this example might seem, it continues to be a challenge to all professionals.

Examples of Steven Bingler's work

Steven Bingler is known for his holistic approach to reorganizing and restructuring education. His work offers an excellent example of developing healthier and less alienated communities. Bingler believes that "the ideal learning community could be seen as a seamless continuum of learning and production where the pursuit of knowledge is a lifetime experience and education is inextricably married to the living and working environment" *(66)*. Moreover, Bingler's work stems from the belief that because learning extends throughout life, it can serve as a platform for community cohesion and action. He seeks to overturn the structure of educational facilities that support learning on a linear and exclusive path. In other words, certain physical characteristics of educational facilities not only promote isolation among students, but have contributed to the segregation of the school from the community.

The following are two examples of Bingler's initiatives. In Providence, Rhode Island, USA, there are plans to develop 12 small schools of 50–100 students each. Each school will be integrated into the adjoining neighbourhood and all schools will share a central common area where all 900 students can convene. The project has been developed through a joint process that involved students, neighbourhood stakeholders, parents, teachers and administrators. One of the goals of the project is to encourage students to venture further out into the Providence community year by year as interns with private and public entities. The long-term hope is that this core curriculum will help alleviate the tendency to separate learning from living *(67)*.

In Dearborn, Michigan, USA, a partnership between the Ford Motor Company, the Henry Ford Museum and the Wayne County Regional Education Service Agency has produced a charter high school located in the Henry Ford Museum. The formal educational centre will serve students from the 9th to the 12th grades and give them access to over half a million artefacts and to mentorships with highly experienced museum curators. Because the facility will be constructed within the existing museum, the learning programmes offered by the Henry Ford Academy will be accomplished with a significant reduction in the capital and operating costs that

would otherwise be required with a new facility *(67)*. Both of these examples offer unique approaches to integration, efficiency and planning for the whole.

Healthy Cities projects

The following case studies describe participants in WHO's Healthy Cities movement, whose purpose is to strengthen the role of cities in achieving health for everyone. Healthy Cities was set up by the WHO Regional Office for Europe in 1986 with the idea that it was time for health for all philosophies and frameworks to leave the bookshelves behind closed doors and come into the streets. It now serves a vibrant network of cities across the world that are attempting new and innovative ways to promote health.

Liverpool, United Kingdom

Liverpool was one of the first cities to participate in the movement and served as the host to the first European Healthy Cities conference in 1988. Starting in 1988, the first phase of Liverpool Healthy City 2000 was devoted to developing an interagency commitment to the strategy, philosophy and principles of the Healthy Cities paradigm. Much of the work in this first phase was based on the United Kingdom Health for All Network, which was established in 1987. The main focus of this group was to facilitate the development and implementation of healthy public policy. The second phase, started in 1993, includes creating structures that enable the development of strategic and operational plans towards the development of an overall City Health Plan for Liverpool. The Plan consists of various strategies ranging from housing to substance abuse. Most importantly, the Plan reflects the need to address the physical and social determinants of ill health. Other unique processes of Healthy City Liverpool include the creation of a joint public health team and a joint consultative committee *(68)*.

Copenhagen, Denmark

The city of Copenhagen joined the WHO Healthy City network in 1989. Copenhagen is often referred to as the model Healthy City because of its great successes. The work of the Network has been described as coherent, professional and innovative, and has a strong identity with Copenhagen citizens. Copenhagen, too, has a Healthy City Plan that encompasses advanced and important health promotion and preventive work. Moreover, the Copenhagen City Council unanimously ratified the Plan. Besides developing healthy public policy in the city itself, one of its other important functions in the near future is to serve as a model for eastern Europe. In other words, Copenhagen can serve as a mentor to eastern European cities. Copenhagen also has future challenges, which include incorporating environmental and urban ecology objectives into future city health plans.

The organizational structure of Copenhagen Healthy City is on two levels, one focusing on administrative functions and the other on fieldwork. For example, the Copenhagen Centre for Smoking Cessation and the Healthy City Shops provide a direct link with community residents. The Department of Planning and Public Health supports the administrative function – the second level. This arm maintains day-to-day operations, which include contact with authorities and other local organizations *(69)*.

Chittagong, Bangladesh

Rapid urbanization and the lack of planned growth in Chittagong has led to serious environmental hazards. For example, nearly 25% of daily rubbish is not collected and left in

piles on roads and drains. Moreover, there are no sewage or wastewater treatment facilities. As a seaport, Chittagong is also ripe for natural disasters such as cyclones and tidal surges. These issues prompted government officials to seek disaster mitigation and environmental improvement that involved local communities.

In 1993, the World Health Organization declared Chittagong as a participant in the Healthy Cities movement. Representatives of a multitude of organizations, both public and private, have committed themselves to using a holistic view of urban management as a means to address environmental degradation and the related health problems. Owing to limited resources, the project organizers started by dividing the city into several wards. The first area, the Jamal Khan Healthy Ward, is centrally located and thus makes supervision and monitoring by the Chittagong Healthy City Programme manageable. Their objective is to create success on a small level and then to replicate this success across other wards.

The Jamal Khan Healthy Ward has reached many goals, but the most striking success is in creating a stronger and healthier urban environment through improved environmental services. Solid waste management has improved through a tricycle rickshaw programme that provides equal benefits for both rich and poor areas. It has also created a ripple effect: residents have been inspired to keep surrounding spaces clean and get involved in other Healthy City initiatives. Moreover, solid waste management efforts have created decent paying jobs for Chittagong residents. The positive effects have not only addressed environmental hazards, but have created broadly-based benefits that consider the whole *(70)*.

Lodz, Poland

Following the release of a report that revealed a sharp negative contrast in the health status of Lodz residents in comparison to other cities in Poland, local public and private organizations directed attention and resources towards health promotion and disease prevention. The Lodz Division of the Polish Hygienic Society (a nongovernmental organization – NGO) initiated this health promotion campaign in 1987. Their objectives ranged from the protection of natural resources to promoting healthy diets. This wide approach followed many of the ideas of Healthy Cities. Lodz did not participate in the first phase (1988–1992) of the Healthy Cities Project, but in December 1993 was designated as a member of the WHO Healthy Cities Network.

The project has been instrumental in convening groups that are undertaking action in similar areas with similar goals. Current partners in the Healthy Cities project include NGOs, universities, businesses, public health departments and health service facilities, among others. The building of this multi-partner coalition has promoted cooperation and the exchange of information. Moreover, it has decreased duplication of services and increased resources.

The most fundamental achievement of the Lodz Healthy Cities Project has been the successful promotion of a wider outlook on health-related issues. This has led to the obtaining of city budget funds that, despite significant changes in local authorities, have been sustained. Moreover, local government has committed itself to supporting the Healthy Cities project up to 2008. The wide outlook on health status and creative partnerships has been key to the successes of Lodz's Healthy Cities project *(71)*.

In sum, these international cities have demonstrated successes over the years in implementing the ideas of a Healthy Cities framework within their local infrastructure. For cities all over the

world, they can serve as a mentor to those considering taking on efforts that advocate for healthy public policies.

Conclusion

By exploring the histories and fundamental implications of the fields of public health and urban planning, and by posing important questions, we have demonstrated here that the two fields are undeniably linked. These links are further clarified by examining the possible tools and techniques that the planner can use to promote healthy urban development. Lastly, real examples of healthy urban planning projects demonstrate that such a framework and perspective can in fact foster positive outcomes. Our intention was not to provide all the answers, but rather to show effectively that the planner no longer has the luxury of planning out of context. Where physical space was once the central preoccupation of the grand planners and architects, focused on design and gross-usage patterns, we are now aware of, and must take into account, the diverse, complex and multiple needs of people and institutions of all ages and cultures that make up the *whole* of our communities.

No matter whether we focus on the local geography or the virtual community a holistic approach is necessary. Planners must work in an interdisciplinary fashion and with the community. They must accept the fact that diverse populations understand their own needs and can offer significant contributions to the planning process.

The authors of this paper also recognize that such radical statements about the way in which future planning of cities should be considered has implications for current and future professionals. One specific consideration is in the way planners and public health professionals are trained. We also need to pay attention to the idea of cultural competence and giving planners the skills to cross boundaries and work with groups other than their own. In other words, in order to advocate for holistic processes, we must train planning and public health professionals in this concept as well.

We cannot ignore the disparities that exist – what occurs in even the most distant place affects the whole. As Duhl stated in the original Healthy Cities paper*:* "A city is like a living human organism. One cannot be healthy, if the liver is sick." *(72)* The community, the city and the world are but one complex organism and must be dealt with as a whole. Healthy Cities, as a model of community governance, offers a way of working that is inclusive. It allows for compromise.

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Annex 1

OTTAWA CHARTER FOR HEALTH PROMOTION
FIRST INTERNATIONAL CONFERENCE ON HEALTH PROMOTION
OTTAWA, CANADA, 17–21 NOVEMBER 1986

Health Promotion

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical mental and social wellbeing, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource fo everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to wellbeing.

Prerequisites for health

The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic prerequisites.

Advocate

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health.

Enable

Health promotion focuses on achieving equity in health. Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men.

Mediate

The prerequisites and prospects for health cannot be ensured by the health sector alone. More importantly, health promotion demands coordinated action by all concerned: by governments, by health and other social and economic sectors, by nongoverwnental and voluntary organizations, by local authorities, by industry and by the media. People in all walks of life are involved as individuals, families and communities. Professional and social groups and health personnel have a major responsibility to mediate between differing interests in society for the pursuit of health.

Health promotion strategies and programmes should be adapted to the local needs and possibilities of individual countries and regions to take into account differing social, cultural and economic systems.

Health Promotion Action Means

Build healthy public policy

Health promotion goes beyond health care. It puts health on the agenda of policy-makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health.

Health promotion policy combines diverse but complementary approaches including legislation, fiscal measures, taxation and organizational change. It is coordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments.

Health promotion policy requires the identification of obstacles to the adoption of healthy public policies in non-health sectors, and ways of removing them. The aim must be to make the healthier choice the easier choice for policy-makers as well.

Create supportive environments

Our societies are complex and interrelated. Health cannot be separated from other goals. The inextricable links between people and their environment constitute the basis for a socioecological approach to health. The overall guiding principle for the world, nations, regions and communities alike is the need to encourage reciprocal maintenance - to take care of each other, our communities and our natural environment. The conservation of natural resources throughout the world should be emphasized as a global responsibility.

Changing patterns of life, work and leisure have a significant impact on health. Work and leisure should be a source of health for people. The way society organizes work should help create a healthy society. Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable.

Systematic assessment of the health impact of a rapidly changing environment - particularly in areas of technology, work, energy production and urbanization - is essential and must be followed by action to ensure positive benefit to the health of the public. The protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy.

Strengthen community action

Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities, their ownership and control of their own endeavours and destinies.

Community development draws on existing human and material resources in the community to enhance self-help and social support, and to develop flexible systems for strengthening public participation and direction of health matters. This requires full and continuous access to information, learning opportunities for health, as well as funding support.

Develop personal skills

Health promotion supports personal and social development through providing information, education for health and enhancing life skills. By so doing, it increases the options available to people to exercise more control over their own health and over their environments, and to make choices conducive to health.

Enabling people to learn throughout life, to prepare themselves for all of its stages and to cope with chronic illness and injuries is essential. This has to be facilitated in school, home, work and community settings. Action is required through educational, professional, commercial and voluntary bodies, and within the institutions themselves.

Reorient health services

The responsibility for health promotion in health services is shared among individuals, community groups, health professionals, health service institutions and governments. They must work together towards a health care system which contributes to the pursuit of health.

The role of the health sector must move increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services. Health services need to embrace an expanded mandate which is sensitive and respects cultural needs. This mandate should support the needs of individuals and communities for a healthier life, and open channels between the health sector and broader social, political, economic and physical environmental components.

Reorienting health services also requires stronger attention to health research as well as changes in professional education and training. This must lead to a change of attitude and organization of health services, which refocuses on the total needs of the individual as a whole person.

Moving into the future

Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love. Health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances, and by ensuring that the society one lives in creates conditions that allow the attainment of health by all its members.

Caring, holism and ecology are essential issues in developing strategies for health promotion. Therefore, those involved should take as a guiding principle that, in each phase of planning, implementation and evaluation of health promotion activities, women and men should become equal partners.

Commitment to health promotion

The participants in this Conference pledge:

- to move into the arena of healthy public policy, and to advocate a clear political commitment to health and equity in all sectors;

- to counteract the pressures towards harmful products, resource depletion, unhealthy living conditions and environments, and bad nutrition; and to focus attention on public health issues such as pollution, occupational hazards, housing and settlements;

- to respond to the health gap within and between societies, and to tackle the inequities in health produced by the rules and practices of these societies;

- to acknowledge people as the main health resource, to support and enable them to keep themselves, their families and friends healthy through financial and other means, and to accept the community as the essential voice in matters of its health, living conditions and wellbeing;

- to reorient health services and their resources towards the promotion of health; and to share power with other sectors, other disciplines and most importantly with people themselves;

- to recognize health and its maintenance as a major social investment and challenge; and to address the overall ecological issue of our ways of living.

The Conference urges all concerned to join them in their commitment to a strong public health alliance.

Call for international action

The Conference calls on the World Health Organization and other international organizations to advocate the promotion of health in all appropriate forums and to support countries in setting up strategies and programmes for health promotion.

The Conference is firmly convinced that if people in all walks of life, nongovernmental and voluntary organizations, governments, the World Health Organization and all other bodies concerned join forces in introducing strategies for health promotion, in line with the moral and social values that form the basis of this CHARTER, health for all by the year 2000 will become a reality.