

Building Population Health Into Municipal Policy

The Use of Health Impact Assessments

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Seeking Higher Ground: PART TWO



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The Wellesley Institute engages in research, policy and community mobilization to advance population health.

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Introduction

Seeking Higher Ground Towards Healthier City-Building

“With the majority of the population living in cities, it is sensible to look at how urban environments have changed, influenced lifestyles, and contributed to the increase in overweight and obesity.”^[1]

Gradual changes in our physical environments, including the dominance of low-density, car-oriented sprawling suburban neighbourhoods in North America, have facilitated more sedentary lifestyles and contributed to a significant rise in chronic illnesses like heart disease, stroke, cancer, diabetes, and obesity.^[1,2] Municipal governments, local community agencies, and non-governmental organizations are increasingly working to better understand the built environment’s role in determining people’s health attitudes, choices, behaviours and outcomes. Understanding how health-enhancing neighbourhood amenities, like walkable streets, proximity to healthy food, affordable housing, safe community space and opportunities for physical activity, are geographically and spatially distributed moves us closer to more equitable neighbourhood and regional planning.^[1] Understanding how our landscapes (whether urban or suburban) might perpetuate or mitigate social exclusion and socio-economic inequities, especially for segments of the population who are vulnerable or disadvantaged, can help us chart a path to investing in population health through the built environment.

Seeking Higher Ground, Part One and Part Two, takes a closer look at issues related to the built environment, offering discussion and commentary on the following topics:

1. Understanding The Built Environment As A Complex System

Local patterns of health and health inequities in cities and neighbourhoods are shaped by a wide range of constantly changing factors: global and national economic trends, the structure and dynamics of the local labour market, the demographic and cultural make-up of local populations, the state of housing and infrastructure, availability and accessibility of health and social services, neighbourhood safety and resources, and how well communities are connected and how resilient they are. Making these community foundations healthier and more equitable involves concerted action by multiple governments across many policy spheres and collaboration of many stakeholders across the public, community and private sectors. And, of course, fundamental change on deep-seated inequalities will take years to have an impact. How can we make sense of all this and develop effective strategies to build healthier and more equitable communities? How is complexity thinking useful as a framework for exploring the built environment and improving population health? What does a systems lens offer urban planners and public health professionals? What are some important connections in the

built environment-health relationship?

By studying the delicate and intricate structure of the built environment, we can get a better sense of how its components interact to influence our health. Conceptualizing the built environment as a complex adaptive system also provides some insight as to how and where planners, public health experts and policy-makers can direct interventions to secure long-lasting, positive health outcomes for all residents.

2. Building Population Health Into Municipal Planning: The Use Of Health Impact Assessments

Many crucial areas of municipal policy and services – from availability of child care to bus routes and safe parks and recreational opportunities – have a direct impact on health. But health is not usually considered in municipal deliberations around budgets, transportation and infrastructure investments, neighbourhood planning and other areas of policy that affect health. How can we ensure that the impacts of broad areas of local policy on health and health inequities are properly considered? How can we address the local drivers and determinants of health more effectively on municipal and regional policy development?

This paper sets out systematic approaches that could embed population health into municipal planning and priority setting. It explores how tools such as health impact assessment and health equity impact assessment have been used in jurisdictions across the world. What are the institutional and technical barriers to the use of HIA/HEIAs? Are there lessons to be learned from other jurisdictions?

These commentaries are meant to inform and broaden the parameters of the healthy city-building discussion by reflecting on how we define health in contemporary planning theory, research and practice in addition to facilitating knowledge transfer on the above topics. Seeking Higher Ground raises critical questions about how our neighbourhoods, cities or metropolitan regions can better support population health, and considers some of the ways we can work to promote and manage healthy city-building.

Part Two: Building Population Health Into Municipal Policy

As municipal governments respond to the contemporary challenges of urbanization, including growing levels of unemployment, poverty and social exclusion, and increasing local concentrations of chronic illnesses and persistent health inequities, there is growing interest in more comprehensive, sustainable and health-enhancing approaches to city-building. The healthy city movement that emerged in the 1980s and 1990s emphasized that both the broad social and economic inequality that underlie health disparities and local employment, housing, infrastructure and community resources all had to be considered in order to address the problems plaguing urban centres and lay the foundations of healthier communities.^[3] At the same time, there is a growing recognition that the overall determinants of health – good jobs, reduced income inequality and poverty, adequate housing, child care and safe and supportive communities – manifest themselves at city and neighbourhood levels. While most of the policy drivers to affect these determinants of health are at the national and provincial levels, local coordination and action are also crucial.

The growing awareness of the “local nature of many health problems” calls for a more equitable distribution of resources and opportunities, thus making cities truly healthy places to live, work and play.^[3, 4] Municipal governments need to rethink the parameters of their mandate and vision past the provision and maintenance of hard services, like infrastructure and transit, to take into account the health and well-being of their increasingly diverse populations. By bridging the gap between health and place, municipal governments could establish well-being and quality of life as the overarching goal for urban policy and planning. In more practical terms, municipalities were on a path to improving population health through investment in the built environment. The focus of this paper is on how population health and health equity can be embedded in municipal policy development.

Building Healthy Cities

The Healthy Cities program, initiated by the World Health Organization (WHO), intertwined the concepts of health promotion, community development, urban governance, and resident engagement to address local health problems related to the urban environment. The primary objectives of this movement were:^[4]

- Securing political commitment to move health higher on the urban policy agenda
- Transitioning from a purely professional municipal decision-making process to one that incorporated adequate levels of community empowerment and participation
- Embedding urban health plans into a broad range of municipal institutions

The idea was to combine top-down policy interventions and bottom-up community engagement initiatives to combat the rise in chronic disease among vulnerable populations in the 1990s.^[3] By 2003, the number of WHO affiliated Healthy Cities initiatives had grown to 1,300 in 29 countries across Europe. In Britain, many municipalities developed formal policies and programs to address social determinants of health and there were many local initiatives designed to address concentrated deprivation and health disparities.

This integrated healthy cities perspective idea was also increasingly popular in North American, Latin American and African cities. In Brazil innovative local councils and other means of community participation in local municipal budget making and health policy were developed. All over the world, healthy city coordinators engaged with local planning experts to integrate health in urban planning whether by advocating for improved access to essentials like clean water and affordable, stable shelter or supporting

policies which facilitate social cohesion and community networks. The Healthy Cities movement brought considerable momentum to the integration of health into urban planning by stimulating the production of policy documents outlining goals and strategies for healthy city-building.^[4]

What Have Been The Barriers To Operationalizing Healthy Urban Planning At The Municipal Level?

Though urban centres across the globe were now making public commitments to health promotion, many struggled (and still struggle) with the challenges of operationalizing and institutionalizing a healthy city-building agenda because of:^[3, 5]

- Difficulty in moving from broad goals to concrete action for integrating health into local planning and lack of clarity on how to stimulate action at the local level. This has been exacerbated by the absence of a universal conceptual framework with prescriptive measures and procedures for implementation
- Narrow perceptions of what constitutes health, as many governments have not yet acknowledged the role of the built environment in shaping the different dimensions of population health, including mental, physical and social health and well-being
- Lack of consensus on appropriate time and form of government intervention to address complex issues like racism, sexism and poverty that contribute to health inequities
- Limited local jurisdictional power to enact legislation, develop a regulatory framework and enforce healthy urban planning/city-building laws
- Lack of political will and leadership which is needed to secure long-term investment through consistent budgetary allocation
- Limited or no available resources, especially in a time of austerity, to reformulate municipal governance models
- Hard to build a culture of collaboration without breaking down existing bureaucratic silos between public health and urban planning
- General skepticism about the value or effectiveness of urban health policy based on an assumption of its redundancy or overlap with existing policies and programs

Further compounding this issue of stalled implementation was failed attempts to translate public health research findings into practical applications for planning professionals to utilize in the field.^[6] Without effective tools, planners' efforts to systematically predict and measure the health impacts of the city-building process on different populations stagnated.

What Tools Have Emerged And Evolved To Address The Challenges Stated Above?

The acknowledgement of the gaps between knowledge and action paved the way for the development and refinement of methodological tools for the purposes of assessing the potential health impacts of planning decisions.^[3, 7] One such tool is health impact assessment (HIA), which aims to “provide a practical and evidence-based approach to more fully engage planners in emerging knowledge about the connections between health and the built environment.”^[6] For example, with dramatic increases in the rates of asthma, obesity and injury, among other negative health outcomes, HIAs offer a means for illustrating the important connections between the built environment, other social determinants of health like access to health care, community cohesion, and housing and population health.^[7] Identifying and studying these connections allows us the opportunity to systematically account for the impact of policy and planning decisions on

different dimensions of health.^[7]

Health Impact Assessment

Contemporary HIAs have been modelled on Environmental Assessment (EA) concepts and methods which emerged in the 1970s to measure and mitigate the impact of development on the physical environment.^[8,9] Within the parameters of this discussion, “development impact” involves any alternation of the natural state and/or quality of air, land, water including plant, animal or human life, whether positively or negatively.^[10] As such, in determining the extent of development impact, one might consider: How will the building of a bridge change the flow and volume of a local river? How will the widening of a street change the congestion levels as well as carbon emissions in a neighbourhood? Or, how will the introduction of a light rail transit system on an arterial road affect the way in which people access local goods and services?

Over time, public health professionals have recognized the need to introduce better monitoring to document population health effects which were not always accounted for or rarely explicit in EAs.^[8, 9] HIAs have typically been used to assess the impacts of large infrastructure projects such as public transportation, road and wastewater construction, but have since evolved to more directly and specifically address policies, plans and projects stemming from urban planning.^[6, 11] These types of assessments range in complexity and scope, allowing planners to reach for a variation of the tool (whether a checklist, participatory workshop or geographic information systems [or GIS] modelling software) that best suits their need.^[12] Irrespective of type, these assessments allow planners to methodically “identify and address health effects, determine baseline conditions in affected communities, identify vulnerable populations and develop appropriate actions to improve the health-based performance or major agency initiatives.”^[7]

A variant – the Health Equity Impact Assessment HEIA – evolved out of the need to address health inequities more systemically and “analyze the potential impact of service, program or policy changes on health disparities and/or health-disadvantaged populations.”^[13] HEIAs can be applied to policy development and evaluation as well as service planning in a wide range of sectors. The Wellesley Institute has also produced high level policy-oriented HEIAs of various government decisions, including reductions in refugee health benefits, the elimination of a social assistance housing benefit, and a proposal to build a casino in the City of Toronto.

How Are HEIAs Being Used In Urban Planning?

American scholar and healthy community design expert, Andrew Dannenberg, led a review of HIAs that were conducted in the US between 1999 and 2007. He and his colleagues observed a range of scenarios in which HIAs have embedded principles of health in the practice of urban planning:^[14]

- In 2003, a private developer proposed replacing all the rent-controlled housing units in Trinity Plaza, San Francisco with condominiums and this triggered the use of a HIA to investigate how the adequacy of affordable housing and social cohesion would be affected by this change. Public hearings and focus groups identified psychological stress, fear, substandard living conditions (crowding), food insecurity and reduced social capital as potential outcomes of displacing low-income residents from rent-controlled apartments. Based on the findings of the HIA, it was recommended that a

further displacement analysis be conducted and a remedial strategy be developed. In this case, the HIA prompted the developer to offer replacement housing for affected residents who were vulnerable to the negative health and socio-economic outcomes described in the investigation

- In 2006, the Eastern Neighbourhoods community in San Francisco employed a HIA to guide the public visioning and input around a new area plan and rezoning proposal. Community consultations yielded a plan with distinct community health objectives in addition to a Healthy Development Measurement tool. As a result of this HIA-led process, the local planning commission endorsed the use of the measurement tool in future community planning initiatives
- In 2007, the City of Decatur, located in Georgia, initiated a community transportation plan using a HIA to acquire input from community members and local experts (both planning and public health) on how a multi-modal transit system might impact physical activity levels, safety, social capital, and overall access to health-enhancing goods and services. Through the consultations, it was recommended that the city focus on improving active travel through safety, connectivity and accessibility (to accommodate those with disabilities). In an effort to implement necessary changes recommended by the HIA, the city has created an Active Living Division to coordinate a strategy across municipal departments

The London Health Commission conducted a series of Health Impact Assessments on eleven of the Mayor of London's draft statutory strategies, including air quality, biodiversity, black and minority ethnic groups, and culture. The assessments led to revisions of several of the strategies.

A Snapshot Of How Municipalities Are Using HIA And Other Planning Tools In Canada

Coalitions Linking Action and Science for Prevention (CLASP) is a national collection of prominent agencies across sectors and disciplines dedicated to integrating health into transportation and land use planning.^[15] CLASP members work towards expanding knowledge and action around healthy community development and chronic disease prevention by building bridges of communication and collaboration. As well, CLASP translates complicated research and policy into simple yet effective community planning tools, capable of evaluating and managing the health impacts of new development. The CLASP initiative undertakes studies of resident expectations and demands with respect to built environment decisions like community design and availability of amenities while also supporting resident engagement and efficacy around the planning process.^[15] The Healthy Canada by Design initiative is funded by CLASP to promote urban sustainability and good health by making health-based decision support tools available to all policy makers and land use planners.

City Of Toronto

Between 2005 and 2008, Toronto Public Health (TPH) worked to systematically evaluate the potential health and health equity outcomes of major municipal infrastructure projects through the development of a HIA framework.^[16] Whether used alone or in conjunction with provincial EAs, the HIA framework was intended to support municipal decision-making by accounting for “community health-related concerns” in order to minimize negative health impacts.^[11] Out of this framework came a range of tools and report templates needed for operationalizing HIAs in municipal planning processes.^[11] Some of these tools and report templates include:^[11]

- A draft screening tool, which clarifies the importance of the proposal, potential stakeholders affected and potential impacts on health. This tool also helps the proponent to determine whether further

appraisal is required as well as next steps for action

- A depth of HIA tool, which determines the appropriate level of HIA needed and the rationale for the proponent's choice. It also explores alternatives to the proposal
- An Impact Assessment Matrix, which determines the impacts on different determinants of health as well as the potential impacts on inequities

Between 2009 and 2010, city council funded TPH's membership in CLASP and its involvement in the Healthy Canada by Design initiative, thus allowing for the exploration and launch of a local spin-off – *Healthy Toronto by Design*.^[17] This local initiative has focused efforts to improve population health on the “design, infrastructure and layout of communities” by leveraging research, intersectoral partnerships and policy reform.^[17]

In 2012, TPH collaborated with consulting group, Urban Design 4 Health (UD4H), to publish a report on the development of an enhanced scenario planning tool which calculates health impact outcomes based on various changes in neighbourhood layout.^[17] GIS technology and modelling software offer a more comprehensive evaluation of the impacts of transit, development proposals, and even infrastructure investments on environmental conditions (like greenhouse gas emissions), activity patterns (like travel behaviour) and population health outcomes (like chronic and respiratory disease rates). Further analysis of Toronto-level data on travel activity, health outcomes, and demographics reinforced research findings linking the design of the built environment to access to good health and socio-economic opportunities.^[18]

The UD4H report found that survey participants in the Greater Toronto Area (GTA) showed a strong preference for neighbourhoods with “walkability and proximity to commercial services” (52.9%) and “access to and size of food outlets” (47.5%).^[19] Though participants in both urban and suburban neighbourhoods showed a preference for pedestrian or transit oriented landscapes, this preference was greater among participants in urban neighbourhoods in the GTA and Greater Vancouver Regional District (GVRD), an average of 26.2 percent higher for City of Toronto participants and 22.1 percent for City of Vancouver participants.^[19] In response to the question of what elements would trigger participants to leave their current neighbourhoods, results showed a desire to be walking distance from commercial services (31.8%), then improved street connectivity and travel options (25.3%) as priorities.^[19] Results also showed a marked difference in physical activity and travel behaviour depending on neighbourhood type: participants who perceive their neighbourhoods as “highly walkable” walked and took transit considerably more and drove less than those in neighbourhoods seen as car-oriented or “unwalkable.” The study also found that obesity was more prevalent among participants in suburban neighbourhoods (24.6%) as compared to those in the City of Toronto (18.2%).^[19] This study offers insight into the attitudes of GTA and GVRD residents, regarding the relationships between the built environment, travel behaviour and health, all of which are relevant for planning policy.

Region Of Peel

The Region of Peel, also a CLASP member, has long been recognized as a frontrunner in the move towards fostering healthy built environments.^[20] In 2005, Peel planning and public health departments engaged in a discussion with regional council on the health impacts of the built environment. As a result, of this, healthy city-building became a council-recognized priority therefore prompting steps towards institutionalizing HIAs.^[21] In 2009, the Centre for Research on Inner City Health (CRICH), Peel Public Health

and the Region of Peel collaborated to develop a practical tool for assessing the impact of development applications on the “health-promoting aspects of built environment,” such as diversity of land uses, proximity to commercial and employment services, and street connectivity.^[20] Subsequent to an extensive literature review, multiple consultations and workshops with a range of industry professionals, and a GIS feasibility study, a healthy development assessment tool was devised. Though still being piloted across Peel municipalities, improvements in its design and implementation have facilitated health-enhancing changes to land use policy, development and engineering standards.^[20,21] Some of these health-enhancing changes include:^[20]

- Amendments to Regional and Municipal Official Plans requiring health impact indicators
- Amendments to engineering standards to increase walkability and active transportation
- Proposed changes to provincial policy statements
- Integration of health background studies at the earliest stage of planning as part of a complete development application
- Campaigns to encourage public awareness of the relationship between their lifestyle and activity choices, living environments and health

With the support of regional governing bodies and municipal departments, Peel Public Health has employed HIAs as a vehicle for responding to trends of low physical activity rates and high chronic disease rates.^[22] Recently, Brampton and Richmond Hill have formally integrated the Peel Healthy Development Index into their planning and development decision-making processes.^[23] As more municipalities jump onboard, Peel Region is supporting active living by developing a robust database from local evidence to predict health impacts and minimize negative health outcomes.

The Region of Peel enlisted the help of Lawrence Frank & Company Inc., experts in translating research on built environment and population health to practice, to develop an evidence-based assessment tool specifically for use in Peel Region. Researchers set out to build a local dataset (containing land use, street network, transit, and health outcomes data) capable of generating statistical relationships for the assessment tool. Some key recommendations from this study include expanding the study area to include surrounding municipalities like Toronto as this would allow for a more comprehensive statistical analysis and illustration of a broader spectrum of urban and suburban landscapes. The report also recommended that additional data sources such as pedestrian and bicycle accident data, vehicle emission generation and exposure to air pollution with potential connections to the built environment, be included. As well, the report suggests that more data, like the building floor area for all land uses (residential, commercial and institutional), is gathered to give insight into additional urban form measures and a wider range of possible intervention strategies for urban health issues. The researchers were also confident that HIA tools, like the assessment tool being developed by Peel Region, could explicitly report on the approximate costs and savings of health impacts as well as encourage other municipalities to use the modelling tool and transfer knowledge to a broader network of municipal departments and agencies, particularly those outside the health arena.^[18]

Modelling software can conduct statistical analyses of built environment measures, like net residential density, walkability and intersection density, and illustrate the impacts of development on residents’ activity patterns and health behaviours.^[8] With the use of an established modelling tool called I-PLACE3S which evaluates how alternative development approaches or transportation investments may impact

environmental indicators like climate change and energy usage, the Region of Peel has plans to refine its HIA tool and process by developing a model based on local (and regional) data which includes a broader range of health and environmental outcomes.^[8]

The I-PLACE₃S has been used in local and regional land use planning to explore different dimensions of the built environment, including the mix of new housing units, placement of transportation facilities or density of new development, through various modelling scenarios.^[24] For example, the Sacramento Association of Governments (SACOG) used it for the Blueprint project in 2003, to conduct a regional analysis of the impact of growth.^[24] The analysis considered a baseline and growth scenarios for built environment elements including housing, employment, land use and transit. This project illustrated the strong connection between characteristics of the built environment (density, diversity, design and destination) and human settlement, activity and travel patterns.^[24] This project highlighted several strengths of the I-PLACE₃S tool in facilitating scenario planning, including its effectiveness in engaging diverse audiences in discussions around neighbourhood design, its use does not require expensive hardware, the exercises can be conducted at varying levels of detail allowing for thorough analysis of different scenarios, and it also employs an extensive set of indicators thus offering a comprehensive look at how the built environment might evolve.^[24] Despite these positive attributes, the I-PLACE₃S tool suffers from a few limitations, such as limited theoretical content to support better understanding of the underlying principles, the default indicators may not be appropriate for widespread application, and it bases its projections on assumptions about economic factors.^[24]

The I-PLACE₃S was also used in King County, Seattle, Washington to test three planning scenarios: one where the designated area was developed to maximum capacity, another where a portion of the designated area was developed, and finally, one where the designated area was developed according to transit oriented development standards.^[24] The modelling exercise accounted for a multitude of variables in each scenario, some of which were directly related to the urban environment and others which were indicative of potential health outcomes. Some of these variables include: changes in population and employment, vehicle emissions, body mass index and physical activity levels among adults.^[24]

Conclusions

What Are Some Of The Difficulties Associated With Applying HIAs To Planning Problems And How Can They Be Mitigated?

Advocacy from the public health field has seen HIAs both formally and informally integrated within institutional urban governance frameworks.^[25] Due to “differences in political, socio-economic and administrative settings,” the degree of institutionalization and application of HIAs vary considerably within and across countries even today.^[5] Despite the growing interest in and support for HIAs across North America and Europe, challenges have included:^[5, 25]

- The absence of a shared knowledge base among professionals and stakeholders produces different interpretations of health and diverging views on suitable health equity interventions
- Antiquated institutional cultures and professional practices can impede interdepartmental or intersectoral collaboration and resource-sharing
- Lack of training and other resources, supportive legislative frameworks and governance mechanisms

to enable effective use

- Uncertainty around the appropriate timeframe of predicting health impacts and applying evidence-based interventions
- Lack of clear and consistent methodological procedures and tools

In light of these and other challenges, it is imperative that HIA advocates garner political support, technical expertise and community interest in order to capitalize on opportunities for further entrenching health equity in urban planning.^[12] Political support may stimulate the institutional change needed at different operational levels of the municipal system including:^[26]

- Macro – embed health equity principles in strategic planning and policy development,
- Meso – commit resources and organizational capacity to achieving health equity goals and align governmental processes and incentives to encourage use (in other words, more effectively deploy carrots such as supportive resources and promotion and sticks such as requiring use of HIA/HEIAs for certain purposes), and
- Micro – conduct HIAs utilizing a participatory and transparent approach

The following serves as an example of how political support facilitates stewardship, investment and implementation at multiple levels of governance, and more importantly, results in municipal level action.^[5] In 1996, the Netherlands Minister of Health created an Intersectoral Policy Office at the National School of Public Health to commission experimental HIAs (or health effect screenings as they are known) on national policy proposals. The policy office worked towards developing a sound methodology and a network of relevant organizations to practice HIAs across diverse sectors including finance, sports, economic affairs and housing. The Office's budget grew from €230,000 in 1996 to €340,000 in 2001. Eventually, legislative changes to the Public Health Acts required municipal authorities to formally and comprehensively incorporate health into administrative decisions.^[27] In this case, political leadership triggered legislative change and local action thereby enshrining HIAs in community planning.

With an established analytical framework, the effects of HIAs could be (more easily) distinguished from other health-enhancing inputs in the planning process and possibly transferable to other jurisdictions seeking guidance on implementing HIAs. Legislation, official registration and systematic evaluation could collectively streamline its application and further validate the technical expertise required to oversee the process.^[7, 9, 12, 25] Conducting public health impact assessments is a licensed activity in Lithuania where proponents are required to submit a report to regional public health centres for approval and review by the public.^[5] By making HIAs a systematic activity, municipal authorities have access to a community health database with the potential to inform local decision-making and policy.

Also, HIAs offer a “new way of approaching community conflicts” or a vehicle for reaching consensus on the appropriateness of physical changes accompanying planning decisions as well as the socio-economic and health effects which are never too far behind.^[7, 12] By recognizing the expectations and opinions of those who may be affected by a planning decision, HIAs seek out a “balance between objective evidence and subjective opinion” in an effort to consider and improve health.^[9] Public input forums can allow for the leveraging the expertise of non-professional stakeholders, while also encouraging communities to hold elected officials and policy-makers accountable for the impacts of their decisions. In Thailand, for example, residents and local organizations are entitled to request and participate in the undertaking of the HIA process.^[5] This empowers citizens and community groups as active participants in the planning process and offers them an avenue for articulating community health concerns in response to proposed

changes to the built environment.

Lessons Learned

- When designing and implementing HIAs, it is important to distinguish between a desired output (plan or policy) and a desired outcome (social capital or institutional change). Without clear goals and practical recommendations, the HIA process may be undermined.
- It is often challenging to disentangle the effects of HIA tools relative to other inputs applied to complex planning processes.^[12] HIAs often act as complements to existing EA and planning policies which share many core values and principles related health. However, HIAs are more focused in their and measurement of health implications in built environment decisions.
- The institutionalization of the planning-public health collaboration facilitates an explicit and formal acknowledgement of health principles in planning legislation, governance systems and decision-making.^[21]
- Establishing partnerships across departments and sectors is fundamental to advancing the practice of healthy city-building. For example, academic research often supplies the rationale for devising HIAs and establishes a baseline for measuring population health, the technical expertise of planners and public health practitioners is used to develop the HIA tool, industry stakeholder knowledge is harnessed to refine the tool and devise an implementation plan customized to local needs, the proper use of the tool is enforced by legislation and policy, and community-based research can be used to measure population health outcomes and inform improvements in the HIA process.^[21]
- By broadening our interpretation of health, we can expand our expectations for a healthy built environment beyond physical activity, injury prevention and safety to include factors that enable social cohesion and good mental health.^[21]
- In light of the extensive body of knowledge pertaining to the relationship between population health and the built environment, it is important to also expand both academic and community-based research related to HIAs.^[5] Quantitative and qualitative HIA research will unearth valuable data, like enabling factors for formal institutionalization, best practices for intersectoral collaboration, transferable lessons for knowledge translation and untapped networks of technical expertise, all of which are central to the seamless integration of health in planning decisions.

The journey toward healthy city-building is fraught with challenges but it is one that many have acknowledged as necessary if we hope to win the fight against socio-economic and health inequities. Despite variations in degrees of institutionalization and use, HIAs offer a reliable pathway for aligning population health goals with the contemporary vision for a vibrant urban metropolis.

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