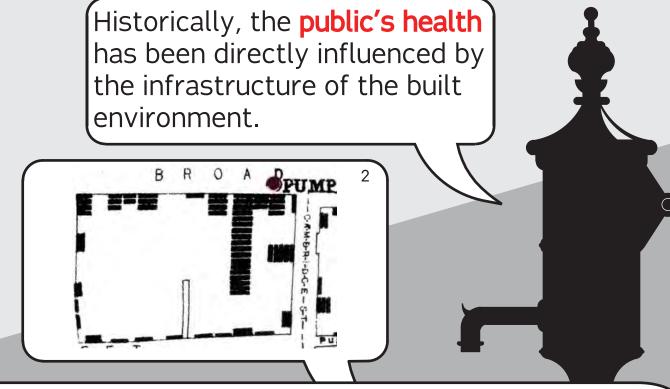
Architects and other built-form designers have long been asking themselves how to design healthier cities.

> ...but it is not enough to make the dwelling healthier; its outside extensions - places for physical education buildings and various playing fields- must be created and planned for by incorporating the areas that will be set aside for them into the overall plan ahead of time"

Le Corbusier Athens Charter, 1943



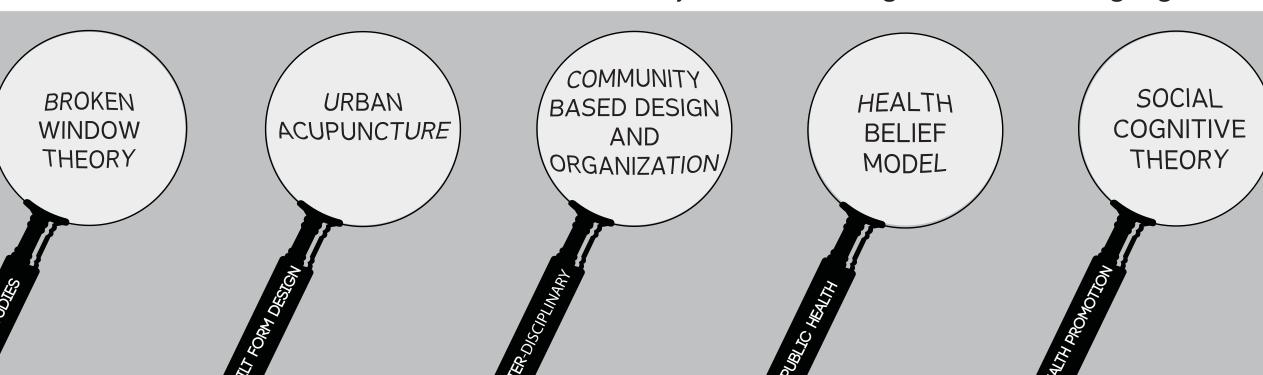
"[The built environment] includes the land-use planning and policies that impact our communities in urban, rural, and suburban areas. It encompasses all buildings, spaces and products that are created or modified by people. It includes our homes, schools, workplaces, parks/recreation areas, business areas and roads."

Ontario's Public Health Sector Strategic Plan, 2013

But... how do we influence the built environment without partnerships with the planners and architects who design it?

But... how do we design for health if we do not know the factors, indicators and metrics that inform it?

> TRANSDISCIPLINARITY is key for evidence-based design solutions yet, we cannot forget who we are designing for: the **COMMUNITY**





plages T'helio er hydrothérapie

Neighbourhood Safety and Aesthetics



Access to Parks and Recreational Spaces



PROBLEM

Active Transportation

Physical Health



Using this transdisciplinary approach...

In the City of Toronto

With little open space left to develop, how will we address the health and recreational needs of our ever growing population?

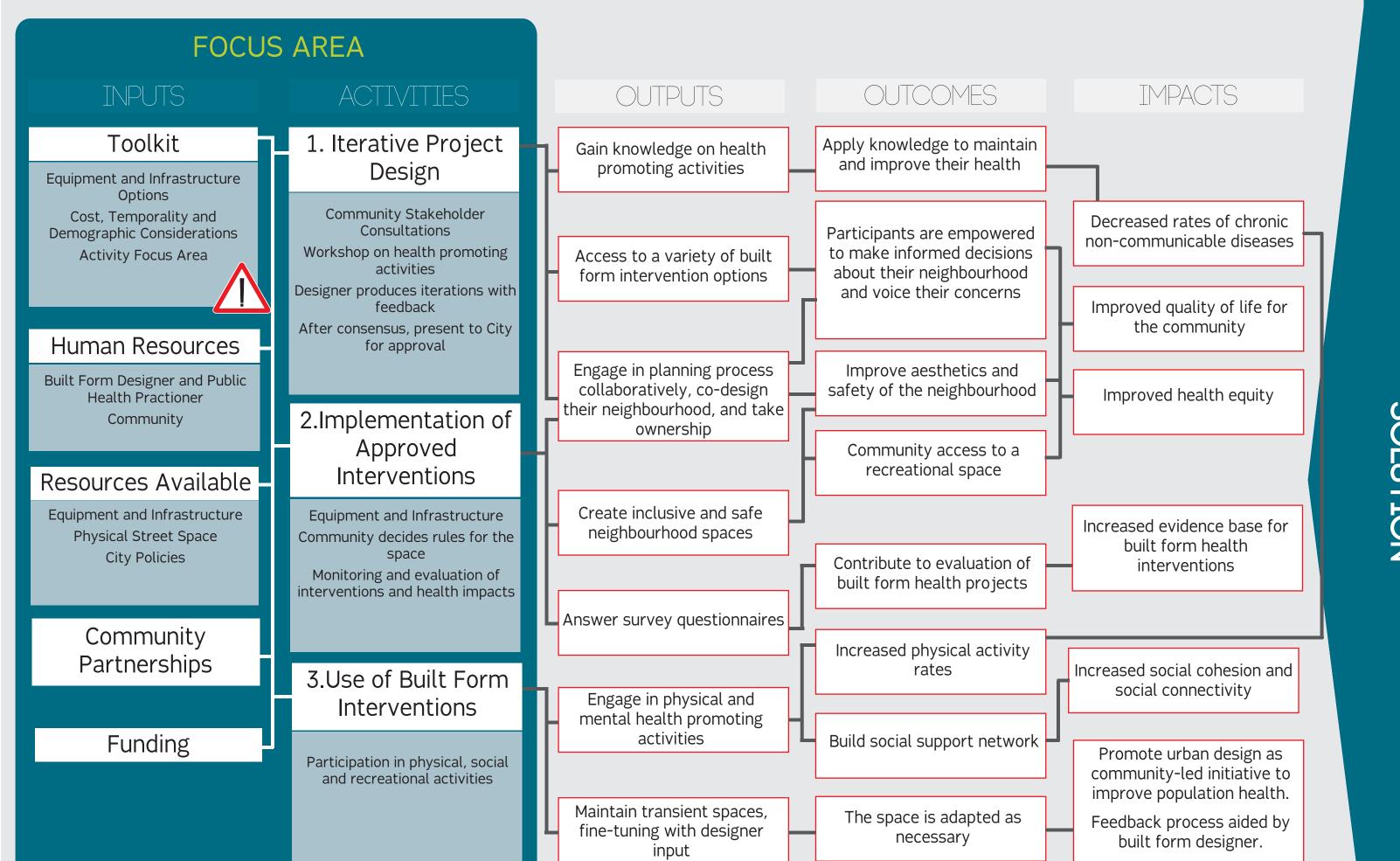
How do we design healthier cities and communities?

of city's land base is dedicated to

of city's land base is dedicated to ROWs (rights of way)

ASPHALT PARK

Transforming TRANSPORTATION INFRASTRUCTURE into SOCIAL INFRASTRUCTURE



INTERVENTION TOOLKIT

| Activity - Light Equipment | Activity - Heavy Equipment | Light Infrastructure | Heavy Infrastructure | Community Specific |
|-----------------------------|------------------------------------|------------------------------------|---------------------------|----------------------|
| Movable Soccer Net and Ball | POST YOUR IDEA HERE! | Hammock \$ | Storage Unit | POST YOUR IDEA HERE! |
| POST YOUR IDEA HERE! | SCREEN SCREEN Garage Door Cinema | \$ Movable Seating | POST YOUR IDEA HERE! | \$ Swing |
| S Volleyball Net | POST YOUR IDEA HERE! | POST YOUR IDEA HERE! | \$\$ Shade Sails | POST YOUR IDEA HERE! |
| Lamp-post Basketball Hoop | POST YOUR IDEA HERE! | POST YOUR IDEA HERE! | POST YOUR IDEA HERE! | \$ Cycling Lane |
| POST YOUR IDEA HERE! | POST YOUR IDEA HERE! | Cones (for temporary road closure) | \$\$\$ Removable Bullards | POST YOUR IDEA HERE! |

REFERENCES

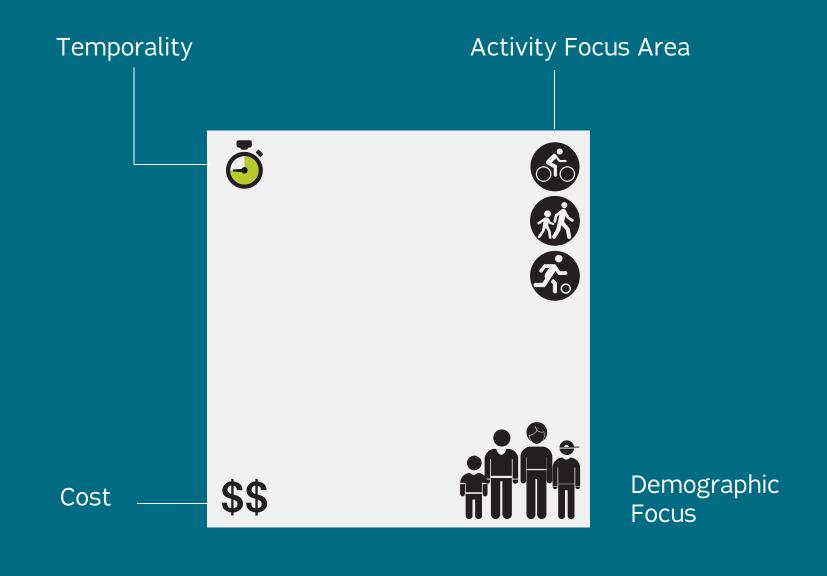
- 1. Le Corbusier. The Athens Charter [Internet]. New York: Grossman Publishers; 1973. Available from http://www.planering.org/images/artikelbilder/pdf/ffs_syd_CIAM_4_The_Athens_Charter.pdf
- 2. Frerichs RR. Mapping the 1854 Broad Street Outbreak [Internet]. University of California, Los Angeles (UCLA), Department of Epidemiology, School of Public Health [date unknown] [cited October 16, 2013]. Available from http://www.ph.ucla.edu/epi/snow/mapsbroadstreet.html
- 3. Ministry of Health and Long-Term Care (MOHLTC) [Internet]. Canada: Queen's Printer for Ontario; 2013 [cited October 14, 2013]. Make No Little Plans: Ontario's Public Health Sector Strategic Plan. Available from
- http://www.health.gov.on.ca/en/common/ministry/publications/reports/make_no_little_plans/docs/make_no_little_plans.pdf
- 4. Public Health Agency of Canada (PHAC) [Internet]. Canada: Public Health Agency of Canada; [date unknown] [updated 2011 Oct 21; cited 2013 Oct 6]. Key Determinants. Available from http://www.phac-aspc.gc.ca/ph-sp/determinants/#determinants
- 5. Naidoo, J. Willis, J. Models and approaches to health promotion. Foundations for Health Promotion. Toronto, ON, Bailliere Tindall; 2009. p. 67-83.
- 6. The City of Toronto. Parks, Forestry and Recreation [Internet]. Toronto: City of Toronto: City of Toronto: City of Toronto: Available from http://www.toronto.ca/legdocs/mmis/2013/pe/bgrd/backgroundfile-57282.pdf
 7. Hillsdon, M., Panter, J., Foster, C., & Jones, A. The relationship between access and quality of urban green space with population physical activity. Public Health. 2006; 120: 1127-1132.
- . Koohsari MJ, Karakiewicz JA, Kaczynski AT. Public open space and walking: The role of proximity, perceptual qualities of the surrounding built environment and street configuration. Environment and Behaviour. 2012; 45(6): 706-736.
- 9. Caroll-Scott A, Gilstad-Hayden K, Rosenthal L, Peters SM, McCaslin C, Joyce r, Ickovics JR. Disentangling neighbourhood contextual associations with child body mass index, diet, and physical activity: The role of built, socioeconomic, and social environments. Social Science & Medicine. 2013; 95: 106-114.
- 10. Hess PM, Milroy BM. Making Toronto's Streets. Report funded by the Centre for Urban Health Initiatives, University of Toronto [Internet]. 2006; 103p. Available from http://faculty.geog.utoronto.ca/Hess/Downloads/Hess%20Milroy%20Making%20Torontos%20Streets%20report%20cuhi.pdf

 11. Hess PM, Sorensen A, Parizeau K. Centre for Urban and Community Studies [Internet]. Toronto: University of University of
- http://www.urbancentre.utoronto.ca/pdfs/publications/RP209_Hess_et%20al_May_2007Ch3.pdf

UNDERSTANDING THE TOOLKIT

The street is a feature of the built environment that serves multiple roles. While the main role is to provide linkage and connection, when overscaled, streets can form divides within communities. Working around the vehicular traffic and transportation cycle of neighbourhoods, it is possible to maximize the potential of the street and transform it from solely transportation infrastructure to social infrastructure that is temporarily occupied for recreational activities.

The toolkit is comprised of a range of equipment and infrastructure options that are designed to consider different residential environments and street types. The elements presented are a sample of possible interventions available to community members. Each urban design intervention targets specific activity focus area(s), demographic groups and considers temporality and cost.



ACTIVITY & BUILT FORM FOCUS AREAS

The activity focus areas were developed based on current understanding of how various aspects of the built environment impact the health of populations and communities. There is substantial evidence linking active transportation such as walking and cycling, access to parks and recreational spaces, neighbourhood safety and surroundings to physical and mental health.



TEMPORALITY

The interventions range in temporality providing flexibility to meet the needs of the community. This aspect considers the sensitivity to street closure that dominates current urban living and thinking



Medium

These interventions are designed for placement over a couple of days.

Permanent

These are long lasting interventions that permanently change the street.

COST

This aspect considers the funding constraints and challenges. For feasibility purposes and in keeping with urban acupuncture theory, the toolkit has been designed to maximize the results of small financial investments, using small-scale interventions to produce neigbourhood-scale results. In order to accomodate different financial capacities of neighbourhoods, a sliding cost scale has been developed. This empowers community members to move forward and create a healthier neighbourhood regardless of economic situation.



These interventions require a higher financial commitment than the affordable category, but can still be financed through community groups, neighbourhood associations, grants or small city investments.

Expensive
These investments are significant investments that would require the collaboration of multiple stakeholders.

DEMOGRAPHIC FOCUS

The elements of the toolkit are designed to meet a large demographic range. From a design perspective, demographic characteristics such as the lifecourse and physical ability inform the type of intervention necessary to address corresponding root causes of physical and mental health issues. By keeping these in mind, the transformed space meets the unique needs of the members of the community.



Nadha Hassen & Joël León





