

New York City, Ottawa and Hong Kong: A comparative case study



A case study prepared by the WHO Global Network for Age-Friendly Cities.

Intervention area: Increasing physical activity

City action: Creating walkable, bikeable and livable streets for older people

Evidence strongly suggests that increased physical activity is associated with better physical and mental health status.¹ For older people, studies also indicate that physical activity helps people live longer and avoid chronic diseases. Three cities in the WHO Global Network for Age-friendly Cities and Communities (the Global Network) – New York, Ottawa, and Hong Kong – implemented strategies to create walkable, bikeable and livable streets that increase physical participation among older people and are responsive to their needs.

Older pedestrians may have difficulty crossing streets if they can only walk slowly or have other age-related mobility limitations, placing them at greater risk of injury and death from collisions.² To accommodate older pedestrians, the three cities each implemented mitigation measures at high-volume intersections, such as extending pedestrian crossing times, constructing pedestrian safety islands, widening curbs and median strips, narrowing roadways, and installing additional pedestrian signal technology. Providing discrete space for different types of road users, such as dedicated footbridges and bike lanes, complements these strategies.

Improving sidewalk conditions can help prevent falls (the second-largest cause of accidental death worldwide) among older people at highest risk.² Nearly half of falls occur outdoors, and features of the physical environment account for between 30–50% of falls among older people.³ Repaving sidewalks and addressing weather-related issues in areas with large concentrations of older people and around public transport have been a priority for Ottawa, where snow and ice are common in winter, increasing the risk of seasonal isolation and falls. All three cities have also worked to

improve sidewalk accessibility for those using walkers and wheelchairs by letting down the kerb in particular places.

People who use public transport are more likely to walk than those who do not,⁴ so to promote the use of public transport, cities can improve the conditions and accessibility it offers. All three cities offer reduced fares to older adults and are working to install seating in bus shelters, as the bus is often a preferred mode of transit among older city dwellers. In New York, bus shelters have also been redesigned to include transparent walls, addressing safety concerns about older shelters that hid the interior from view. In Hong Kong, handrails and larger visual cues have been added to buses. All three cities have also increased the availability of seating near public transport, as well as near seniors' centres, housing, hospitals and community health centres, commercial zones and shopping districts, and municipal facilities. New benches have been specially designed with arm rests to help people sit down and stand up.

Age-friendly cities and communities work to improve the interaction between the individual and the environment to maximize functional ability.² The three cities each use metrics to track improvements to streets used by older people, including the number and features of redesigned intersections; number of new bus shelters, benches and bike lanes; the number of reports of unsafe pedestrian conditions; and the number of pedestrian injuries and fatalities, disaggregated by age. Data are typically collected and reported by municipal agencies, such as departments of transport, health, city planning, and ageing, as well as through online and telephone information, referral, and reporting portals, such as the 311 government service hotline in New York.

Members of the Global Network for Age-Friendly Cities regularly seek feedback from older citizens to identify barriers to social, physical and economic participation. Through community consultations, focus groups, roundtable discussions and surveys, older people, their service providers and caregivers were asked about their experiences of walking, biking and using public transport in their respective cities. Participatory research methods were used to empower older people to conduct their own walkability audits of neighborhoods.

Qualitative and quantitative data were then analysed, and mapped at the neighbourhood level when possible, to understand barriers to active transport faced by older people. Barriers common to all three cities included: pedestrian safety concerns, insufficient accessibility, and inadequate public seating. A review of the literature indicates that perceptions of neighbourhood safety and crime rates, proximity to resources and services, and fears of falling can also influence active transport among older people, particularly in socioeconomically disadvantaged areas.⁵

The impact of developing more walkable, bikeable, and livable streets can be seen in the realms of community empowerment, health and governance. In Ottawa, starting in 2015, neighbourhood walking audits and advocacy led by older citizens have resulted in passage of a new speed-reduction policy; lengthened intersection crossing times and installation of audible pedestrian

signals; new red-light cameras; better signage; and a citywide campaign to promote safe crosswalk use by all types of road users.

New York City's Safe Streets for Seniors Initiative has resulted in a 16% reduction in senior pedestrian fatalities between the start of the initiative in 2008 and 2016.⁶ Other improvements include 4000 new, transparent bus shelters with seating, as well as an additional 1800 specially designed benches funded by a federal grant. Anecdotally, these benches have made the city more walkable, and older people report having made new social ties while sitting on benches.

In each of the three cities, creating streets that are responsive to the needs of older people has resulted in greater coordination between municipal agencies and new partnerships between municipalities and the private sector. Further research is needed to understand the impact of these interventions on physical activity rates, perceived health status, falls risk and fear of falling, and rates of social engagement, as well as whether they have been implemented equitably and where greater investment is required. Finally, analyses should be conducted to determine savings to health care and social insurance programmes resulting from improvements to the physical environment that keep older people safer and more active, and that facilitate increased socialization and civic engagement.

¹ Warburton DER, Nicol CW, Bredin SSD. Health benefits of physical activity: the evidence. *CMAJ*. 2006;174(6):801–809. doi:10.1503/cmaj.051351.

² Falls: Key Facts. Geneva: World Health Organization; 2018 (<http://www.who.int/news-room/fact-sheets/detail/falls>, accessed August 20, 2018).

³ WHO Global report on falls prevention in older age. Geneva: World Health Organization; 2007 (http://www.who.int/ageing/publications/Falls_prevention7March.pdf. Accessed August 16, 2018).

⁴ Besser LM, Dannenberg AL. Walking to public transit: steps to help meet physical activity recommendations. *Am J Prev Med*. 2005;29(4):273–280. doi:10.1016/j.amepre.2005.06.010.

⁵ Barnett DW, Barnett A, Nathan A, Van Cauwenberg J, Cerin E. Council on Environment and Physical Activity – older adults working group. Built environmental correlates of older adults' total physical activity and walking: a systematic review and meta-analysis. *Int J Behav Nutr Phys Act*. 2017;14(1):103. doi:10.1186/s12966-017-0558-z.

⁶ Safe Streets for Seniors. New York: New York City Department of Transportation; 2017 (<http://home2.nyc.gov/html/dot/html/pedestrians/safeseniors.shtml>, accessed October 12, 2017).