

Key Messages

- During the COVID-19 pandemic, public transit and mobility disruptions did not impact everyone equally. Essential workers continue to travel to work. Research showed that transport usage is dependent on socioeconomic status and car ownership (Palms et al., 2020).
- Street reallocations and the design of cities must consider creating spaces to move, wait, exercise, and improve active transportation infrastructure to reduce overcrowding and ensure safe physical distancing (Patterson, 2020, COVID-19 Rebalancing Guide, 2020).
- “Transportation systems are essential for sustainable, resilient and equitable cities” (Winters, 2020). Shifting toward greener and decarbonized methods of transport can support Climate Change mitigation strategies (“2020 Declaration for Resilience in Canadian Cities”, 2020).
- Commit to collaboration and consultation with Indigenous voices and marginalized people, who have been historically excluded from city-led decision making and planning processes, to develop equitable mobility interventions (Firth, 2020).

Urban Design and Transportation Infrastructure for a post-COVID future Policy Brief

Executive Summary

The start of the COVID-19 pandemic and the stay-at-home regulations put in place to contain its spread caused a major decline in mobility patterns. However, not everyone had the option of working from home. Essential workers have continued to work in the front lines, and many still rely on public transit to commute. Moreover, physical distancing recommended to reduce the risk of COVID-19 infection, can be more difficult for people living in neighbourhoods with higher density.

The pandemic has provided an opportunity to truly reflect on the design of cities and public spaces. An equity perspective is crucial in future work to improve spaces and design as well as in the transition to greener and cleaner transportation systems which can help in mitigating another global emergency: climate change. Action is needed to include communities in the design and implementation of city programs to work towards resilient, equitable, and sustainable cities in a post-COVID future.

Recommended actions are based on information presented by researchers during the webinar series, “Learning and Relearning for Planetary Health: Early Lessons from a Pandemic”¹.

Importance of the problem

In March and April of 2020, stay-at-home regulations from the COVID-19 caused a sharp decline in [mobility patterns](#) worldwide and in Canada. Due to pauses in economic activities, and the closing of businesses and industries, there was reduced movement and a transition into working from home for some. Yet not everyone can work from home: many essential workers

¹ On June 10th, 2020, a webinar titled, “*Livable cities post-COVID: a focus on urban planning and transportation*” was presented as a contribution to a series on “*Learning and Relearning for Planetary Health*”. This session was hosted by Dr. Meghan Winters, an Associate Professor and Dr. Caislin Firth, a Postdoctoral Fellow from the Cities, Health & Active Transportation Research Lab, in the Faculty of Health Sciences at SFU. The presenters were Dr. Steven Farber, an Associate Professor at the University of Toronto, Matt Palm, a Postdoctoral Research Fellow from the University of Toronto, and Brian Patterson, an MCIP, RPP with Urban Systems in Vancouver, BC.

A recording of this webinar session and presenter slides can be accessed through this webpage:
<https://learningforplaneta.wixsite.com/website>

continued to rely on public transit to commute to work and people rely on public transit to access essential services. This transition raises important considerations for the feasibility of alternative methods of transportation (Winters, 2020; Farber & Palms, 2020).

The design of cities and urban spaces such as narrow sidewalks and roads impacts the ability for people to meet to meet recommendations for physical distancing related to reducing virus transmission. People living in dense neighbourhoods and multi-unit housing continue to have a more difficult time in safely physically distancing; Moreover, people living in neighbourhoods with poorer transportation options and fewer amenities may felt the impacts of the pandemic more substantially with reduced accessibility to essential services (Teelucksingh, 2020; Pitter, 2020; Farber & Palms, 2020)

The COVID-19 pandemic has shined a light on the critical role transportation systems play in safely accessing work and essential services and who relies on these services for their mobility. As we rethink of how we move within our cities and how public spaces are designed and who they are designed for, a critical equity lens is needed. Making equity the forefront of city governance and policy development will support meaningful changes towards addressing social determinants of health, which contribute to inequities in mobility, access to public space, and health, in order to move towards just and resilient cities (Palms, 2020; Patterson, 2020; Firth, 2020; “2020 Declaration for Resilience in Canadian Cities”, 2020)

Background Information

The gradual increase in mobility during June 2020, as seen by the [Mobility Trends Report by Apple Maps](#), has been due to the re-opening of businesses and cities. However, it shows that public transportation has consistently remained lower compared to active and automobile transportation methods (Apple; Winter, 2020). Public transportation is widely used and highly needed for in daily life, commuting to work and school, and reaching essential services. However, in the initial months of COVID-19, many cities saw major reductions in ridership to due to stay-at-home restrictions as well as perceived safety concerns around shared spaces. Concurrently, there were major transit service cuts in many cities globally. To explore the challenges that arose from this, the ‘[Public Transit and COVID Survey](#)’ was conducted in Toronto and Vancouver during May 2020 by Palm et al., (2020a). The objective of this study survey was to understand how peoples’ public transit use had been changed by COVID-19. (Palms et al., 2020a).

The study illustrated that socioeconomic status, job industry, and the privilege of owning a vehicle influenced public transit usage. In Vancouver, among essential workers, 78% of workers in grocery/retail, manufacturing, and remediation and waste continued taking public transit to work during the COVID-19 pandemic, in comparison to 59% of health care and social assistance workers, and 48% of other professional, scientific, and technical job industries. A similar pattern was seen in Toronto. Moreover, the main reason people continued to use public during the pandemic was to access essential services, such as groceries and pharmacies. For survey respondents who stopped riding transit and did not own a car, they expressed a harder time in participating in daily activities and accessing these essential services. This has long-term implications that can cause strains for lower-income households due to lack of alternative modes of transportation and to not being able to access essential services was disproportionately experienced among low income households. Other options for accessing essential services

include walking or biking, for folks who are able and live in neighborhoods where services are within reach (Palms et al., 2020b; Palms & Farber, 2020).

Living in denser areas makes it harder to practice safe physical distancing due to factors such as lack of public spaces that can accommodate large crowds. To address this, quick responses from governments were needed to reallocate streets to provide space for people to stay physically distant (Patterson, 2020). The ‘COVID-19 Street Rebalancing Guide,’ prepared for the Federation of Canadian Municipalities for cities, emphasizes the crucial need to use the COVID-19 pandemic to build back better to enhance safety, physical and mental wellbeing, and foster resiliency through several redesigning strategies that can have lasting impacts beyond the pandemic (COVID-19 Rebalancing Guide, 2020; Patterson, 2020).

The ‘[2020 Declaration for Resilience in Canadian Cities](#)’ call to action highlights “The COVID-19 pandemic provides a once-in-a-lifetime responsibility to accelerate the change we require in Canadian cities” (“2020 Declaration for Resilience in Canadian Cities”, 2020). This requires moving toward a greener and cleaner spaces and design, as well as a decarbonized transportation system to also address and mitigate another global emergency: Climate Change (“2020 Declaration for Resilience in Canadian Cities”, 2020). Importantly, this work must be done with an equity perspective. It is crucial to ensure we address and reduce the inequities in infrastructure and transportation system accessibility and promote resiliency and healthier communities as we move into a post-COVID future (Winters, 2020; Firth, 2020).

Potential policy recommendations

Policy options include:

1) Considerations for providing space alternative modes of transportation

- i. Commit to investing in the redesign of transportation systems and services within cities. Investment considerations should include evidence from the [Public Transit and COVID Survey report](#), to provide strong evidence of the challenges and implications of transportation methods on residents in large urban areas. (Farber & Palms, 2020; Palms et al., 2020a)
- ii. Modes of transportation should consider and support strategies in increasing electric mobility as a potentially safe way to relieve transit demand (Farber & Palms, 2020)
- iii. Deliberation of reserving transit options for those who cannot afford automobiles or cannot use alternative modes of transportation such as bicycles. (Farber & Palms, 2020)

2) Municipal responses in street reallocations

- i. Commit to further development and investment in street allocations that includes permanent solutions for the long term, by using and implementing strategies outlined in the ‘[COVID-19 Street Rebalancing Guide](#)’ to improve public spaces (2020; Patterson, 2020).

- ii. Consider existing actions in other countries when developing plans for the design and implementation of long-term street reallocation in their own communities (Patterson, 2020).

3) **Equity lens on urban design and transportation infrastructure for resilient communities**

- i. Commit to an equity perspective when designing policy that will address public transport, urban design, and street reallocations to ensure all people have the opportunity for to live healthy lives (Winters, 2020; Firth 2020).
- ii. Commit to collaboration and consultation with Indigenous voices and marginalized people, who have been historically excluded from city-led decision making and planning processes, to develop equitable mobility interventions (Firth, 2020).

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(excluding the key messages box)

Sources Consulted or Recommended

2020 Declaration for Resilience in Canadian Cities. (2020). Retrieved 12 November 2020, from <https://www.2020declaration.ca/>

Apple Maps. COVID-19 - Mobility trends Reports. Retrieved February 12, 2021, from <https://covid19.apple.com/mobility>

COVID-19 Street Rebalancing Guide. (2020). Retrieved 11 November 2020, from <https://fcm.ca/en/resources/covid-19-street-rebalancing-guide>

Farber, S., & Palms, M. (2020). The Public Transit and COVID-19 Survey: Early Insights on Active Travel in Toronto and Vancouver. Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session 9, <https://learningforplaneta.wixsite.com/website>

Firth, C. (2020). *Bridge transportation policy with peoples' realities*. Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session 9, https://drive.google.com/file/d/1mFigzJt2bGar-A6y8B58II6_VCxJtrRA/view

Palms, M., Farber, S., Allen, J., Zhang, Y., Widner, M., & Howell, N. (2020a). Public Transit and COVID-19 Survey Results. Retrieved February 12, 2021, from <https://mobilizingjustice.ca/transit-%26-covid-19-survey>

Palms, M., Farber, S., Allen, J., Zhang, Y., Widner, M., & Howell, N. (2020b). Public Transit and COVID-19 Survey: Results from the City of Vancouver. Retrieved February 12, 2021, from <https://mobilizingjustice.ca/transit-%26-covid-19-survey>

Patterson, B. (2020). Street Reallocations; Municipal responses to COVID-19; Policy blueprint for street reallocations. Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session 9, <https://learningforplaneta.wixsite.com/website/webinar-9>

Pitter, J. (2020). *Urban Density: Confronting the Distance Between Desire and Disparity* - Azure Magazine. Azure Magazine. Retrieved 29 January 2021, from

<https://www.azuremagazine.com/article/urban-density-confronting-the-distance-between-desire-and-disparity/>.

- Teelucksingh, C (2020). *Special challenges of urban racialized and low-income populations*
Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session
3, <https://learningforplaneta.wixsite.com/website/webinar-9>
- Winters, M. (2020). *Livable cities post-COVID: A focus on urban planning and transportation*.
Learning and Relearning for Planetary Health: Early Lessons from a Pandemic,
Session 9, <https://learningforplaneta.wixsite.com/website>