How can we have a Sustainable Recovery for after the COVID-19 Pandemic? POLICY BRIEF

Key Messages

- The COVID-19 pandemic has aggravated and made clear that there are inequities due to urban design and infrastructure in large urban centers among low-income and racialized communities.
- Research suggests higher air pollution exposure is associated with higher likelihood of COVID-19 infection. This risk is higher in communities which are located near polluted areas.
- A greener economic recovery will help mitigate Climate Change through reduction of air pollution and greenhouse gas emissions.

Executive Summary

In 2020, COVID-19 and Climate Change have been acknowledged as global emergencies that require an urgent need for sustainable actions to ensure meaningful recovery paths for both crises.

Action from policymakers is needed to move in a path towards a sustainable recovery that will consider all aspects of environmental, social, and economic factors through a low-carbon and greener economic plan, considerations of urban design and infrastructure, and efforts to reduce emissions and improve our air quality. A recovery demands we bounce back towards a sustainable and equitable future for our communities and our planet.

Recommended actions are based on information presented by researchers during the webinar series "Learning and Relearning for Planetary Health: Early Lessons from a Pandemic¹.

Importance of the Problem

Sustainable Development is defined as "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs" (United Nations, n.d.) This is framed under three interconnected components of "economic growth, social inclusion, and environmental protection" (United Nations, n.d.).

The COVID-19 pandemic has provided an opportunity to assess how our surrounding structures impact these three key components of sustainability. Continued fossil fuel reliance contributes to greenhouse gas emissions and increases the impacts of climate change and unhealthy air. Built environments such as urban design and infrastructure can act as barriers to health resources for lower income and racialized neighbourhoods, such as with the decreased opportunities to safely socially distance. Reducing social and health inequities is crucial alongside addressing the increasing wealth gap through a greener and low-carbon economic stimulus plan for the future.

¹ On April 29th, 2020, a webinar titled, "*Hard hit urban populations, air pollution and energy system reboot all connected to a sustainable world*" was presented as a contribution to a series on "*Learning and Relearning for Planetary Health*", which spoke on sustainability for after the COVID-19 pandemic. The presenters were Dr. Cheryl Teelucksingh, a Professor in the Sociology department at Ryerson University, Dr. Jeff Brook, a Faculty member from the University of Toronto in the Dalla Lana School of Public Health, and Dr. Marc Lee, a senior economist with the Canadian Centre for Policy Alternatives (CCPA). A recording of this webinar session and presenter slides can be accessed through this webpage: https://learningforplaneta.wixsite.com/website/past-webinars



Now more than ever, we require forward thinking and actions as we work towards sustainable development in a recovery from the COVID-19 pandemic alongside the Climate Change crisis.

Background Information

In March 2020, stay-at-home regulations allowed for dramatic decreases in air pollution globally from pauses in economic activities, and reductions in car traffic. This was observed through maps provided by Descartes Lab, through the European Space Agency's Sentinel 5P satellite which showed decreases in cities like Vancouver, BC (Thurton, 2020). Particulate air pollution can have significant short-term and long-term health impacts on our respiratory systems. The interaction of inflammatory particles in air pollution and viral respiratory infection appears to increase the chances of COVID-19 infection and more severe health impacts (Stieb et al., 2020). Though more research is still required, in Canada, researchers found a positive association of higher COVID-19 cases when there is higher air pollution exposure in the form of particulate matter among health regions. Higher numbers of COVID-19 cases were also found among Black and lower income communities; further highlighting the uneven distribution of COVID-19 and environmental air pollution (Stieb et al., 2020).

The social determinants of health are "the social and economic factors that influence people's health" (Canadian Public Health Association, n.d.). This can include built environments such as housing infrastructure and urban design within cities. In British Columbia, the "age-standardized mortality rate for COVID-19 was more than 10 times in neighbourhoods with higher proportions of groups that are 'visible minorities'" which can include Black and South Asian groups (Subedi et al., 2020). Existing social and health inequities have been heightened during COVID-19 in lower-income, racialized, and Indigenous communities. This can be attributed to older, poorly designed, and overcrowded housing. These neighbourhoods can provide challenges for social distancing and are more likely to have poor ventilation and damp conditions which can lead to more respiratory conditions (Pitter, 2020; Moloughney, 2004; Masuda et al., 2012).

Actionable change is possible, as seen through the social movement that took place last year by Black health care workers and advocates in Ontario who spoke on the importance of the social determinants and urgent need for race-based data. This led Toronto Public Health to put forth plans for the collection of this data. This will be crucial in further understanding and reducing health disparities among Indigenous and marginalized communities by better allocation of resources (Teelucksingh, 2020).

As with the drop in air pollutants worldwide, there were also decreased carbon emissions during the early months of the pandemic by about 5%. However, to meet the Paris Agreement targets and stay below 1.5 degrees Celcius in global temperature, a decrease of 7-8% of carbon emissions will be required every year (Lee, 2020). British Columbia, alongside the rest of Canada, continues to rely on fossil fuels as part of the economy through extraction of oil and gas and coal production (Lee & Klein, 2020). Emissions also come from industrial activity, transportation, buildings, and heating (Lee, 2020). Maintaining a fossil fuel reliant economy will continue to perpetuate the Climate Change crisis, environmental degradation, and environmental and social injustices due to the placement of industries near lower-income and racialized communities (Lee & Klein, 2020; Galvez et al.,2020)



As stated in Senator Galvez's White Paper, "a key feature of a clean and just recovery is that it provides stimulus to businesses, people, and ideas that are in the best interests of society in that they contribute to social and/or environmental wellbeing." (Galvez et al., 2020). A low-carbon reboot of our economy can help in mitigating climate change and reduce emissions to reduce air pollution; to aim at achieving again the improved air quality during stay-at-home regulations. Moreover, work in community redevelopment funds, affordable housing and green infrastructure can create healthier communities and further reduce social inequities to build a more sustainable and equitable future (Lee 2020; Lee & Klein, 2020)

Policy Recommendations

Policy Recommendation 1:

A Racial & Income Inclusive Recovery

- Continue the demand of mandates for standardized collection of race-based data for better understanding of the burden of disease that will strengthen our health care system with more informed decisions and improved allocation of resources (Teelucksingh, 2020)
- ii. Consultation and collaboration with Indigenous leaders and racialized experts and marginalized communities is crucial in developing policy that engages in equity focused disaster and climate change preparedness strategies. Consider existing <u>qualitative</u> <u>research</u> to further understand and guide actionable plans that will address challenges within highly dense urban centers (Teelucksingh, 2020; Masuda et al., 2012).

Policy Recommendation 2:

Sustainable Transitions for protection against air pollution and COVID-19

- Policy should commit to support the development and distribution of both reusable and disposable face masks to protect against air pollution and reduce the spread of COVID-19. This should include inclusive distribution to groups who are most likely to be exposed to both such as homeless shelters and camps, low-paying jobs, and those in agriculture work (Brook, 2020).
- ii. Support investment actions in the restructuring and redesigning of indoor spaces with attention to improvements in disinfection and ventilation (Brook, 2020).

Policy Recommendation 3:

Energy Transition and a Low-Carbon Reboot

The existing frameworks: <u>Winding Down BC's Fossil Fuel Industries'</u> and <u>Building Forward</u>
<u>Better: A Clean and Just Recovery from the COVID-19 Pandemic – White Paper</u> can be used to further shape provincial plans such as CleanBC and existing policies to further strengthening commitments to transition away from the fossil fuel industries to more clean and green public investments. (Lee & Klein, 2020)

i. BC's carbon tax has been successful in demonstrating the reduction in carbon emissions (Harrison, 2019). Increasing incentives and further regulations must be maintained. Royalty reforms should be designed to decrease fossil fuel industry reliance and instead be replaced with renewable sources. (Lee & Klein, 2020).

- ii. Investments in training and creation of the jobs needed to shift into clean energy, renewables, and green infrastructure. Government support for job and advanced retraining programs is needed for workers in affected industries (Lee, 2020; Lee & Klein, 2020).
- iii. Enhancements in local supply chains to build a more resilient economy. Move towards zero waste with better design practices for reducing raw material extraction and emissions (Lee, 2020; Lee & Klein, 2020).
- iv. Investments in people and communities. Focus on the wealth gap, and in reduction in disparities with affordable housing and community redevelopment funds (Lee, 2020; Lee & Klein, 2020). Recommendations for building social well-being are also outlined in Senator Galvez's White Paper, a valuable resource for shaping policy and engaging in discussion for action.

Word Count: ~1460 (excluding the key messages box)

%20households.

Sources Consulted or Recommended

- Brackley, C. (2020). *Mapping COVID-19 cases in Canada per capita*. Canadian Geographic. Retrieved 29 January 2021, from https://www.canadiangeographic.ca/article/mapping-covid-19-cases-canada-capita.
- Brook, J. (2020). *Air pollution COVID-19 interactions, what are we not measuring?* Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session 3, https://www.meethere.org/conferences/learning-for-planetary-health
- Canadian Public Health Association. (n.d). What are the social determinants of health? Cpha.ca. Retrieved 29 January 2021, from https://www.cpha.ca/what-are-social-determinants-health.
- Descartes Labs. (2020, November 16). Retrieved February 02, 2021, from https://www.descarteslabs.com/#atmospheric
- Galvez, R., Zrinyi, N., Péloffy, K., & Laviolette, S. (2021). *Building Forward Better: A Clean and Just Recovery from the COVID-19 Pandemic.* Senator Rosa Galvez. Retrieved 29 January 2021, from https://rosagalvez.ca/en-clean-and-just-recovery/.
- Harrison, K. (2019). Lessons from British Columbia's carbon tax. Policy Options. Retrieved 29 January 2021, from https://policyoptions.irpp.org/magazines/july-2019/lessons-from-british-columbias-carbon-tax/#:~:text=A%20growing%20body%20of%20research,harm%20to%20low%2Dincome

- Lee, M. (2020). *The energy transition and a low-carbon reboot.* Learning and Relearning for Planetary Health: Early Lessons from a Pandemic, Session 3, https://www.meethere.org/conferences/learning-for-planetary-health
- Lee, M., & Klein, S. (2020). *Winding Down BC's Fossil Fuel Industries*. Canadian Centre for Policy Alternatives. Retrieved 29 January 2021, from https://www.policyalternatives.ca/publications/reports/winding-down-bc%E2%80%99s-fossil-fuel-industries.
- Masuda, J., Teelucksingh, C., Zupancic, T., Crabtree, A., Haber, R., & Skinner, E. et al. (2012). Out of our inner city backyards: Re-scaling urban environmental health inequity assessment. *Social Science & Medicine*, *75*(7), 1244-1253. https://doi.org/10.1016/j.socscimed.2012.04.034
- Moloughney, B., Canadian Population Health Initiative, Canada Mortgage and Housing Corporation, & Canadian Institute for Health Information. (2004). *Housing and population health: The state of current research knowledge*. Canadian Institute for Health Information.
- 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/.
- Sentinel-5P. The European Space Agency. Retrieved 2 February 2021, from https://www.esa.int/Applications/Observing_the_Earth/Copernicus/Sentinel-5P.
- Stieb, D., Evans, G., To, T., Brook, J., & Burnett, R. (2020). An ecological analysis of long-term exposure to PM2.5 and incidence of COVID-19 in Canadian health regions. *Environmental Research*, 191, 110052. https://doi.org/10.1016/j.envres.2020.110052
- Subedi, R., Greenburg, L., & Turcotte, M. (2020). COVID-19 mortality rates in Canada's ethnocultural neighbourhoods. www150.statcan.gc.ca. Retrieved 29 January 2021, from https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00079-eng.htm.
- 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://www.meethere.org/conferences/learning-for-planetary-health
- Thurton, D. (2020). Air pollution eases in 4 Canadian cities as pandemic measures keep people home | CBC News. CBC. Retrieved 2 February 2021, from https://www.cbc.ca/news/politics/satellite-images-no2-smog-gta-vancouver-1.5516160.
- United Nations. *The Sustainable Development Agenda*. United Nations Sustainable Development. Retrieved 29 January 2021, from https://www.un.org/sustainabledevelopment/development-agenda/.