HERE TODAY, GONE TOMORROW: PUBLIC TRANSPORTATION AND VULNERABILITIES IN RURAL AND REMOTE CANADA

December 2021

CINDY HANSON *UNIVERSITY OF REGINA*

JOANN JAFFE *UNIVERSITY OF REGINA*

EMMA VARLEY *BRANDON UNIVERSITY*

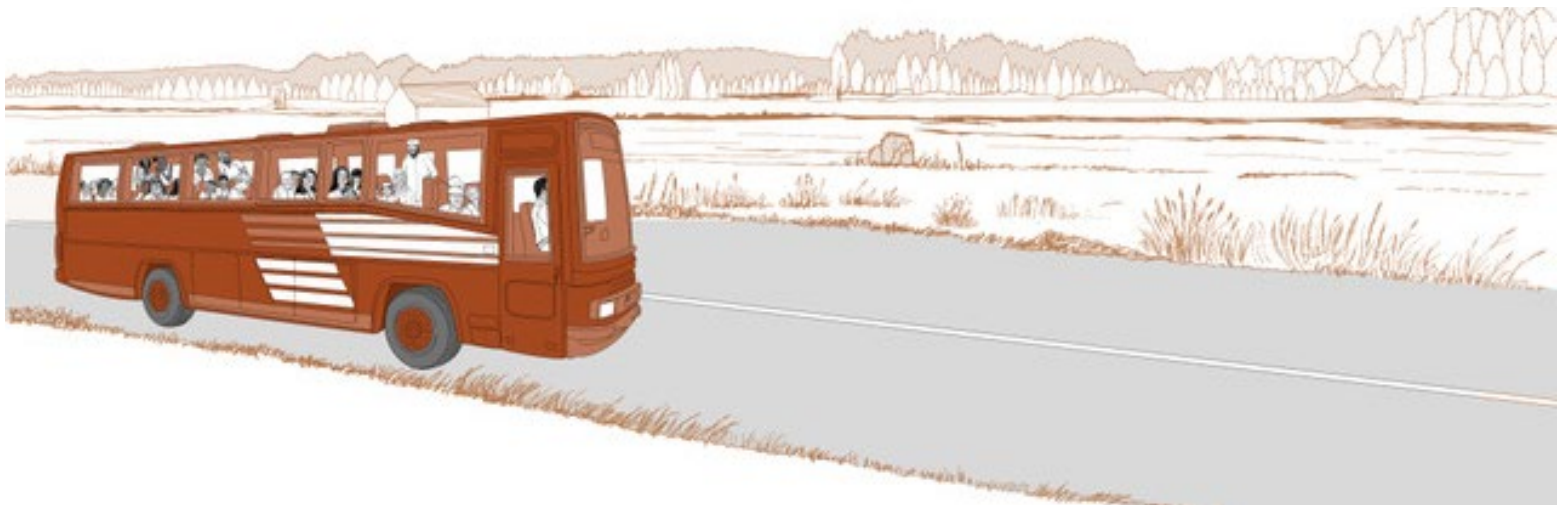**JACOB ALHASSAN** *UNIVERSITY OF SASKATCHEWAN*

MOMO TANAKA *UNIVERSITY OF SASKATCHEWAN*

MAEGAN KRAJEWSKI *UNIVERSITY OF REGINA*

TAMIKANI JESSIE NKHATA *UNIVERSITY OF REGINA*

BRENDA WASTASECOOT *UNIVERSITY OF TORONTO*

JULIANNE ACKER-VERNEY *MOUNT SAINT VINCENT UNIVERSITY*

ACKNOWLEDGEMENTS

Copies of this report are available without charge through the University of Regina https://ourspace.uregina.ca/ or through the office of CRIAW-ICREF https://www.criaw-icref.ca/publications/

Social Sciences and Humanities Research Council of Canada

Conseil de recherches en sciences humaines du Canada

Canada

Table of Contents

EXECUTIVE SUMMARY

Background

This knowledge synthesis (KS) project explored how remote and rural (RR) places face a complex array of social, political and economic obstacles in their access to sustainable, accessible, and appropriate transportation, and in exercising mobility rights. Growing vulnerability and inequality between these places contribute to growing vulnerabilities and inequalities among RR residents and the rest of Canada. The pattern of, and access to, public transportation in Canada, reflects the history of natural resource development and seldom considers the effects of the lack of transportation on health and welfare, human capabilities, education, climate change, and sustainable development. Mobility, however, shapes the conditions and lived experiences of gender, poverty, disabilities, and older-age; it either restricts or enables citizen participation.

We take seriously the ways that vulnerability and transportation disadvantage are products of the structuring impacts of unequal mobility. For instance, insufficient or absent access to mobility–especially affordable public transportation–determines the ability of individuals and communities to achieve a sustainable livelihood, societal participation, personal and collective safety, and access to essential and non-essential services, resources, opportunities, and rights. Mobility- and transportation-linked possibilities and vulnerabilities are not experienced equally. These realities led us to adopt an intersectional approach that recognizes how individuals' circumstances are shaped, constructed, and constrained by systems and structures over which they have little control. Given neoliberal restructuring, we paid close attention to how the systematic removal of public transportation alongside increasing, near-exclusive emphasis on automobility, is implicated in the production and exacerbation of vulnerability for RR persons, communities, and regions of Canada.

Objectives

The key question guiding our study was *How does the presence or absence of public transportation contribute to people's vulnerability in RR locations?* We understood from the onset that vulnerability was not just shaped by individuals, but that their lack of access to mobility, largely through public transportation, shaped and shifted their possibilities for a sustainable livelihood, participation, safety, access to services and other rights. Our approach illustrates the processes and practices by which these intersections of social identity can be used in addressing a more just notion of mobility using public transportation.

Our intent remains that the findings be used to guide public policy, practice, and further academic, Indigenous, and participatory consultation and research. We also intend to make visible how previously published work has paid little to no attention to the voices of particular segments in society including women, Indigenous and racialized groups, people with disabilities and other minorities. Knowledge created from the project will be accessible through the bilingual research report (French/English), fact sheets (available through the project collaborator, CRIAW-ICREF); a webinar; community radio interviews, and academic conferences and papers.

Methodology

Our methodology involved a phased, iterative approach beginning with a stakeholder conversation to identify key issues and develop frameworks to assess and integrate knowledge from different worldviews and methodologies. Working with a team of 5 research assistants/associates, the project systematically scoped 5 databases dating post-2000 using keywords and subject headings corresponding for each of the subtopics of the KS study. In addition to peer-reviewed work, searches were conducted for theses, grey literature, news articles, policy briefs, websites and blogs. We distinguished 11 areas of research and developed research questions for each. Researchers identified cases to be used to illustrate the context of key issues explored. Sources were analyzed using a common analytical rubric. Using an intersectional lens, particular attention was paid to silences and gaps in the literature.

Key Findings

1. There is a **lack of voice, agency and community-based information** taking into account people and places located in RR Canada;
2. **Public transportation should reflect and be designed around the lived experiences and needs of RR places and people**, including health, human capabilities, social needs, climate change, and sustainable development;
3. **Avoid homogenizing populations** by taking into account intersectional transportation disadvantage as it is experienced in particular RR places. Ideally this can work to build on the dearth of research exploring transportation exclusion and disadvantage;
4. **Need for solutions and new approaches to address mobility rights and capabilities**. Mobility shapes the conditions and lived experiences of gender, poverty, disabilities, and older-age; it either restricts or enables citizen participation.
5. **Market-based solutions are often inaccessible and unresponsive to the needs of the most vulnerable;**
6. As it deeply impacts places and people in RR areas, **automobility has led to two-tiered citizenship.** Transportation policies are all too often political and tied to neoliberal ideologies. Instead, interdisciplinary theories of mobilization that understand RR places and people as subjects in their own histories and processes are needed, including research that addresses how to design and democratically develop multi-functional public transportation that sees beyond the needs of industry; and
7. **Transportation and mobility are structuring principles** that constitute important foundations of the infrastructural capital of place and of people's lives.

Key Messages

1. Encourage researchers to consider mobility, RR location, public transportation and vulnerable groups as important intersections for transportation development;
2. Transportation research must model an inclusive and iterative way of recognizing and integrating knowledge from rural, Indigenous, academic and international research;
3. Given the regional character of rural life, accessible transportation must be developed so that already-disadvantaged RR residents can access goods, services, education, jobs, safety and well-being;
4. RR places and people are made more vulnerable by lack of accessible transportation; and
5. De-centre automobility without resorting to superficial solutions.

Key Recommendations (also see report for further recommendations)

1. Further research and leading practices in policy development highlighting public transportation and mobility with an intersectional lens as central to social infrastructure, social cohesion and active citizenship;
2. Consider mobility, public transportation and vulnerable groups as important intersections for transportation policy development in RR areas of Canada;
3. Go beyond economic indicators to center the social and environmental impacts of transportation policy;
4. Include the community in policy, planning, evaluation, and monitoring of public transportation to ensure that transportation policy addresses community concerns and needs; integrating the inclusion of people normally disenfranchised, including those with disabilities;
5. Commit to a capabilities and rights-based approach, in accord with Canada's international stance on mobility and transportation. Work toward making Canada an example of mobility rights and mobile commons.

REPORT

Introduction to *Here Today, Gone Tomorrow* Knowledge Synthesis (KS)

The lives of people who reside in rural and remote places are often affected – made more or less constrained and vulnerable – by the absence or presence of public transportation. Transportation is, in other words, a deeply structuring principle that constitutes an important part of the infrastructural capital of place and of people's lives. The growing vulnerability and inequality between some rural/remote places is contributing to the growing vulnerability and inequality of some rural people. Our project explored how rural and remote places and the people who live there face unique social and economic obstacles accessing sustainable, accessible, and appropriate transportation, and exercising mobility rights. Being able to realize – or not – these rights shapes what happens, how people can prosper, and for whom development takes place. In other words, they offer both possibilities and present obstacles.

Guided by the question: **How does the presence or absence of public transportation contribute to people's vulnerability in rural and remote locations?** We initially sought input from stakeholders who might know about literature in this area, and then methodically combed through academic and grey literature on the topic; looking at it from national and global perspectives. Based on the literature we found several key areas of focus and then we employed an intersectional approach to draw on literature regarding mobility rights, capabilities, social exclusion, equity, and multiple dimensions of individual, community and regional vulnerabilities. These topics are discussed in more detail in the report that follows.

In the Canadian context, rural and remote are used to indicate a set of shared characteristics and challenges. The pattern of, and access to, public transportation has reflected the extractive and exploitative nature of Canada's history of natural resource development and has taken poorly, if at all, into account the effects of the lack of transportation on population health and welfare, human capabilities, education, climate change, and sustainable development. Mobility, however, shapes the conditions and lived experiences of gender, poverty, disabilities, and older-age; it either restricts or enables citizen participation. Our approach illustrates the processes and practices by which these intersections of social identity can be used in addressing a more just notion of mobility using public transportation. Our intent remains that the findings be used to guide public policy, practice, and further academic, Indigenous, and participatory consultation and research.

The findings encourage researchers (within academia, community, government, and social organizations) to consider mobility, public transportation and vulnerable groups as important intersections for transportation development in rural and remote areas of Canada. Finally, and critically, our proposed approach to the knowledge synthesis (including the stakeholder conversations and use of grey literature) allowed us to model an inclusive and iterative way of recognizing and integrating knowledge from rural, Indigenous, academic and international research.

We expect the outcomes will benefit and provide enhanced knowledge that can lead to further research and leading practices in policy development highlighting public transportation and mobility with an intersectional lens as central to social infrastructure, social cohesion and active citizenship.

Methodology

The methodology for this knowledge synthesis project involved a phased, iterative approach over several months. The project began with a stakeholder group conversation, in which the researchers met

with 10 individuals representing key vulnerable groups in rural and remote Canada, such as farmers, seniors, Indigenous leaders, and disability advocates, to discuss intersectional approaches to the issues covered in the proposal and to help the researchers identify key questions and develop frameworks to assess and integrate knowledge from different worldviews and methodologies.[1] They also helped in the identification of sources of grey literature – that is, literature that is not published in academic formats, or is technical or specific to a particular constituent group. After initial feedback from the stakeholders, project researchers identified 11 subtopics for the KS and developed research questions to guide the literature review in each area. These subtopics were: intersectionality; transportation as a structuring principle and "infrastructure capital"; the particular context of rural and remote Canada; mobility rights and mobility justice; social impacts, transport poverty and vulnerability; democracy, decision-making, privatization and austerity; capabilities and justice; mobility and living with disabilities; social exclusion, transportation equity and intersectional impacts; linking accessibility, safety and violence; and health impacts.

The researchers used a systematic scoping review methodology in which three databases (Academic Search Complete, Science Direct, Sociological Abstracts) were initially searched using keywords and subject headings corresponding to each of the subtopics of the KS study literature. For example, in the case of the search on social impacts, transport poverty and vulnerability, researchers searched the key words: transport poverty; transport disadvantage; social impacts of transportation, scarcity, precarity, gender, age (youth, elderly; senior citizens; age cohorts), Indigenous, Aboriginal: First Nations, Metis, Inuit, newcomers, immigrant, race, racism (xenophobia); and cost (expenses, expenditures). Keywords that were not obviously about transportation or mobility were combined with others that were, e.g., transportation, mobility, accessibility, transport, travel, transport services, etc. In conducting the search, researchers were asked to include—except where specified for a particular subtopic when the search would start earlier—literature after 2000 and to favour articles that combined two or more of the listed key words in the abstract. They were also requested to follow key citations in already-identified articles for leads. Researchers excluded, except where specifically specified, any literature before 2000; studies that were solely economic in nature except where answering direct economic questions; econometric modeling; studies that appeared to be unreliable. They also excluded articles that were narrowly urban; and the key word terms: transit, municipal, city, VIA Rail (except for specific needs), and Go Transit. In cases where the three databases yielded few articles, the researchers were later instructed to search the Abi/Inform and ArticleFirst databases. Besides the peer reviewed studies, searches were conducted for theses, dissertations, grey literature, newspaper articles, policy briefs, websites and blogs.

After sources were identified, a second scan was conducted to ascertain relevance to the subtopic and those especially central were flagged. If the source was rejected at this second scan, researchers were asked to provide a short explanation. The total sample to analyze included 434 sources. The content of each of the final group was reviewed and analyzed according to place; subject of article; key messages; conclusions and further lessons; quality/applicability; key words; methods; source of data; theoretical approach; generalizability; usefulness; silences; discourse used; and whose voice was prominent. Using an intersectional lens, particular attention was paid to silences and gaps in the literature. Outlines of each of the subtopics were written and reviewed by the other researchers. In some cases, subtopics were combined because the literature review showed that they could more adequately be covered as one topic. From the literature and stakeholder conversations, the researchers also identified potential case studies that could be used to illustrate the context of key issues analyzed in this KS.

A. RESULTS: FRAMING THE RESEARCH

1. Intersectionality

Intersectionality is a valuable analytical framework that encapsulates the "interactions and multiplying effects of inequalities within individuals" and communities.[2(p2)] Originating from the work of Black American feminists such as the Combahee River Collective and the legal scholar Kimberlé Crenshaw, intersectional approaches have facilitated the creation and development of many theoretical and conceptual tools for research.

> Intersectionality's objective is social justice. It is an orientation to research that focuses on revealing and responding to oppression and privilege in peoples' lives, by considering the effects of interpersonal interactions, and of socioeconomic and political structures. […] Intersectionality can strengthen an analysis of the systemic power relations at work in peoples' lives, and help reveal allies who are working for reconciliation.[3(p25)]

The Canadian Research Institute for the Advancement of Women (CRIAW-ICREF), a national feminist organization, outlines an intersectional approach on systems thinking and on the relations of power and privilege in their fluid interactions with individuals and communities. These practices value contextualization and create a foundation that "identifies patterns of relationships that individuals and groups have to larger social, economic and political systems" and speak to the way "structures and systems enable, reproduce, and interact to entrench inequalities.[4 (p.3)] The use of the intersectional theory within Here *Today, Gone Tomorrow* enabled us to frame social and other forms of inequality in transportation. Framing inequality involved naming social positions of race, gender, class, geography, age, ability, and so on, and noting how these social positions are impacted by systems of power (for example, economic, social, and political) and social hierarchies or structures such as colonialism, sexism, racism, and ableism.

In our research on transportation intersectionality serves as a foundation and an analytical framework and grounds our study in inclusive, accessible and decolonial methodologies. Moreover, this approach furthers our understanding of topics directly related to transportation rights and justice, such as social inclusion, mobility, and public and community health impacts. It also highlights how transportation compounds other sources of disadvantage and exacerbates inequalities and explores how these inequalities are presented and contextualized within research and policies. Overall, the intersectional approach pulls us away from generalizations and enables us to engage critically with group needs as well as experiences of transportation's differential impacts and the systems and institutions of power that inform them.

Intersectional approaches recognize diversities and inequities in the ways that systems and structures act upon individuals and communities and, consequently, how the impacts that follow from those acts are not homogeneous: "Intersectionality recognizes that people's experiences may be affected by several interacting systems of power that combine, reinforce or challenge each other. These systems construct people's experiences of marginalization and oppression, or of power and privilege."[5(p136)] For instance, Mimi Sheller's[6] notion of mobility justice recognizes bias in the way mobility and transportation systems are constructed. She suggests ways to look at mobility as a system "…under surveillance and unequal – stratified by gender, race, ethnicity, class, caste, colour, nationality, age, sexuality, disability, etc. *which are all in fact experienced as effects of uneven mobilities* [sic]."[6(p10)] Intersectional frameworks therefore played a critical and central role in this study's efforts to undertake rich analyses of how individuals, communities and groups of people are marginalized and how inequitable structures or practices can be challenged.

In her work looking at the importance of embedding intersectionality and reflexivity in research, Acker-Verney[7] looks specifically at research that is accessible and inclusive. She stresses the importance of reflexivity, which enables researchers to look within themselves and adopt the practice of self-location. This process "challenges traditional positivist research assumptions of research objectivity, generalization of findings, power asymmetry within research relationships and methods."[7(p6)] It is important for researchers to fully recognize "the role of dominant ideology and assumptions" that influence the way we view our understanding of inequalities and how our research process can have a "replication of structures and systems that disempower, alienate and silence participants."[7(p7)] Acker-Verney further advises on the importance of centering the research participants and acknowledging them as the experts of their reality.

Yuval-Davis's[8] theory of *situated* intersectionality both informs our methodology and enhances our understanding of a range of social, economic, and personal inequalities in the context of transportation. Situated intersectionality looks critically at the "geographical, social and temporal locations of the particular individual or collective social actors examined by it,"[8(p95)] highlighting the importance of avoiding generalization across contexts, space and time and realizing that power and social stratification translates differently in different situations. Situated intersectionality informs our research and our understanding of inequality as it entrenches our analysis in a deconstruction of how "multiple axes of social power" create "particular social positionings, identifications and normative values" and how the importance and interactions with these factors differ in "particular space/time locations and/or for particular people or groupings."[8(p95)] Naming challenges to and enablers of transportation justice within rural and remote locations thus becomes necessary to get a more nuanced and accurate description of how location and geography impact on transportation access, control and justice.

Additionally, situated intersectionality bridges "inter-categorical and intra-categorical methodologies'' and looks specifically at the "distributions or inequalities of particular social divisions" in different places and what these categories mean in specific social and historical contexts.[8(p97)] It "does not homogenize or reify boundaries of localities or groupings," but understands that within and across contexts or groups people do not relate or view social stratification in a uniform way.[8(p97)] In these ways, situated intersectionality avoids the shortfalls of many theories that study and analyze inequality, aiming to create a universal understanding of "particular practices"[8(p97)] across and within groups and contexts, which erases experiences and views that do not fit into this normative perspective. Although normative policies and programs about transportation suggest an urban bias, situated intersectionality advocates for a more flexible and situated response, capable of taking into account the diversity of Canada's landscapes and lived realities. Furthermore, it allows us to complicate and diversify the otherwise-homogenous way in which transportation has been developed in policy.

Using intersectionality as an analytical framework, Cohen[2] expands the understanding of what it means to experience life as an older adult in a rural area with financial challenges to outline the overlapping effects of these factors. Cohen's[2] research emphasizes the importance of intersectionality in research and confirms the value of centering life experiences. For instance, it highlights the different kinds of impacts that older adults face without access or limitations to transportation, health care, food and housing depending upon where they fall within the intersections of older age, rurality, and income.[2] These overlapping factors can also be compounded by factors such remoteness of their location or access to services such as healthcare.

Hailemariam et al.'s[9] research in Flint, Michigan, USA was informed by an intersectional theoretical framework. Intersectionality uncovers the "social identities, power structures, and legal and policy frameworks''[9(p2)] in the Flint study. It examines the needs of special populations and the gaps that exist

in access to services in the community. The study defines its "special population" as "young women, perinatal women and new mothers, older women, women with disabilities and LGBTQIA."[9(p2)] The study drew on the expertise of the special populations and community partners, and this added to its uptake. Further, it echoed CRIAW-ICREF's sentiment of the importance of systems thinking. It anchors the experiences of each specific population into larger barriers – social, health and economic – that exist in Flint. It illustrates that individual experiences of health and wellbeing are often shaped and framed by their social position (gendered, racialized, class, etc.) and paints a picture of the interconnections between social position and access to different social services. The lack of access to a service has a domino effect, for example, a service such as transportation can affect food security, health care, personal safety, and employment. The study's avoidance of generalizations leads to sustainable

---

Case Study: Maritime Seniors without Rural Transportation

In the absence of reliable, safe and affordable public transportation options, "women are those filling in for society."[11(p32)]

Sue McLaughlin and her husband, John, live in a small rural fishing community in the Maritimes. In his younger and more active years, John was a hard-working person and considered one of the pillars of the community. Along with Sue, John made efforts to help his family and community, and everyone in the fishing town agrees that John and Sue's love story is the stuff of fairy tales. In their old age, the absence of public transportation is putting this love story to the severest tests possible. John was recently diagnosed with prostate cancer and needs to attend multiple health appointments monthly. Their children have grown up and moved to Ontario and British Columbia and are therefore not able to drive John to his appointments. While Sue would be happy to do this, her eyesight is failing and her ability to drive long distances is out of the question.

There is no doubt that finding out one has prostate cancer is a major life change, but in the absence of reliable, affordable and safe public transportation systems, the stress of such a life-changing diagnosis has been compounded. Although most of the attention has been focused on John and his illness, a lot of stress has been pushed onto his wife Sue because she is the one constantly looking for ways to make the medical appointments possible.

The absence of public transportation in many parts of Canada has brought into sharp contrast what has been called by some *the crisis of care.*[12] As governments continue to pursue balanced budgets via service cuts and a retreat from the provision of social and other public services, particular segments of the population are being forced to bear a disproportionate burden of caring for others. Bhattacharya[13] has argued that this logic is tied to the global capitalist system of economic exploitation of women and other minorities, who are expected to provide unpaid care, yet suffer some of the most unconscionable logics of that very system including poor or no wages. In other parts of North America, the idea that the loss of public transportation increases burdens on seniors – some of whom struggle to feel a sense of belonging has been noted in the literature.[14] The story of Sue McLaughlin and her husband John, while sad, is not unique, and describes the suffering that has come to typify the lives of many seniors in rural and remote locations. In parts of Canada, Alhassan and colleagues[15] describe how family members (often women) may "drive long distances or feel some of the stress, worry and anxiety"[(p8)] experienced by those seeking health care who have no access to public transportation in rural areas. Whatever formulation one uses to understand the loss or absence of public transportation it seems that given that gender roles put women in caring roles, they often bear the brunt.

community-based solutions that acknowledge people's experiences and relationships to services are different, and thus, solutions are not homogeneous.

The use of intersectionality provides an understanding of inequalities and gaps, and aids in implementing tools that encourage social inclusion. Research by Hamilton and Jenkin[10] presents a gender audit tool for addressing policy issues around social exclusion and advocates for gender mainstreaming. It recognizes the relationship between transport and social exclusion and evaluates the Public Transport Gender Audit tool developed in the UK. It uncovers the dangers of creating and maintaining systems and services that cater to one group of people, while simultaneously hindering the ability of others to meaningfully exist and participate in society. Public transportation systems and services built or focused on one experience as a referent can ironically exacerbate social exclusion because they presume that different groups have the same experiences or needs. The gender audit provides a "checklist against which policy-makers, planners and providers in the transport industry…[can]…measure their policies, plans and systems to ensure that transport provision meets women's needs."[10(p1)] It reveals how often gender differences are ignored in matters related to transport. Gender differences are further structured through socio-economic activity, safety, violence, and travel patterns.[10]

Ultimately, through our intersectional conceptualization of transportation, this report provides a framework for understanding how social positioning affects and is affected by mobility. It provides guidance concerning the ways that transportation programs and policies can be evaluated and assessed, and commits to avoiding generalizations and acknowledging complexities and power structures that exist.

2. Transportation as Structuring Principle and Infrastructure

"One of the worst fears of any community is the possible loss of transportation links. The loss of transportation services is one of the most pressing issues in rural development."[16(31)]

Infrastructure, Transportation and Territorialisation

Transportation is a critical form of infrastructure or "social overhead capital"—the deep conditions or basic services that allow for the social and economic functionings of a society—for rural places.[17,18] Transportation is therefore a deeply structuring principle, the absence of which results in penalty and vulnerability for rural places and the people who live there. The distribution of transportation has a direct and indirect effect on the potential for development of rural areas: directly via its role in the construction of the "structure of demand" and indirectly via its contribution to the conditions of development.[19] According to Hirshman,[18] infrastructure like transportation is further characterized by its need to be provided by the public sector because of high cost and little direct return, or by private agencies subject to public control and possibly subsidy. For transportation, conditions of equity and public benefit are important due to the centrality of transportation in the workings of society and the use of public resources.

Transportation has a substantial influence on how and where social and economic activities take place and on the trajectory of development of rural places. It plays a critical role in shaping the relationship between places and is a key factor in territorialisation, as it determines the flow of people, goods, and services across space. Although much work remains to be done in explaining the causal role of transportation in development,[20] the application of location theory (also known as Central Place Theory) can be useful in describing the process and form that territorialisation takes in a society.[21,22] In general terms, central places are positions that are linked to other positions both hierarchically and horizontally.

The forms of these linkages are characterized by whatever centralizing institution exists in that society. According to Smith,[22] the organization of linkages within a central-place system directly impacts the "adaptation, identity, and survival" of the communities within that system; the ways in which goods, services, information, and people can flow through the network come to define what happens to and in

---

Case Study: The Saskatchewan Transportation Company

The Saskatchewan Transportation Company (STC) was an example of public transportation that provided an infrastructure for the delivery of services, goods, mobility and safety to rural and remote people in Saskatchewan for 70 years. The province had been the last in the country to maintain a publicly funded provincial bus company. The STC case illustrates the need to defend public transportation and access to public services.

The STC gave residents an affordable, accessible, safe and environmentally friendly way to move around their province. STC enabled many in rural areas to exercise their full citizenship rights and enjoy similar amenities to their urban neighbours. STC infrastructure included a fleet of 41 buses—almost half were wheelchair capable—that covered 25 routes, connecting 253 communities and travelling about 2.8 million miles per year.[27] According to its 2016 Annual Report, STC drivers were unionized and many STC employees were female, Indigenous, visible minorities, or had disabilities.

The STC had a track record of low accident rates and dependably provided essential services to diverse populations despite often difficult weather and across long distances. The 2016 STC annual report showed that over 60% of STC users were women and 70% were low income. Many STC riders were also drawn from the elderly, youth, Indigenous, or otherwise marginalized populations.

As many public and commercial services have become centralized in Saskatchewan's largest cities, mobility is more important. STC connected families and friends to each other and linked people to the educational, economic, social services and justice systems. STC provided medical passes for a low annual fee that allowed cancer patients, dialysis patients, and others with medical needs to be linked to necessary health services, and transported vaccines, medical instruments, and blood supplies. Additionally, a profitable part of STC's operation was carrying freight for farmers and small rural businesses.

For several decades, some provincial programs allowed STC to interline with private operators in remote and low density communities; the Rural Transportation Assistance and Northern Feeder Programs, for example, provided communities with assistance in collaborating with local transit authorities to create feeder lines to STC. In several provinces, these programs created systems of rural and remote transportation far more cheaply and with much lower subsidies than existent remote rail. It also allowed for regular, predictable service where none would be otherwise.

The Company used the Balanced Scorecard, an alternative measure to bottom-line profitability, to track its performance and progress in meeting a range of social, environmental and economic goals. It conducted safety audits that demonstrated its low accident rates, documented and sought to improve its accessibility for those with mobility issues and other disabilities, and received high satisfaction ratings among its users.

STC demonstrated how public transportation can be crucial in serving areas of low population density and remote, hard-to-travel-to communities. Through the transportation of goods, services, and people, the STC benefited farmers, Indigenous communities, small businesses, and many others.

The STC closure was part of the 2017 austerity budget. Since its closure, the private sector provides service on a few profitable routes, but proper infrastructure for rural and remote services and goods has vanished.

those places, as well as structures and defines relationships *between* places.[21,23]

The networks through which goods, services, information and people flow are, thus, not neutral in design or effect, and have not developed innocently or haphazardly. Rather, as Shove and Trentman[24] state, infrastructures are "literally shaped" by conflicts over geography, social and natural resources, and human rights. The outcome of these struggles impacts the nature of available services and which groups have the physical, social, and economic access to those services. The resultant infrastructures then become development trajectories whereby previous policies make some paths easier or more obvious, creating and hardening inequalities among people and places.

It is easy to ignore the networks and systems that constitute infrastructure because the role they play in enabling resources and services becomes virtually invisible. The public should be made aware of the importance of networks in maintaining the relations and structures that uphold everyday life, in addition to the need to maintain the infrastructures themselves. There is also much research still to do to fully explain processes through which infrastructures "co-constitute 'needs' and practices."[25(p4)]

Of course, governments can and do intervene in the pattern of transportation networks to make patterns that are more reflective of public objectives, e.g., to facilitate access to health care, education, or work. These government-facilitated networks then become part of the policy environment and system of social service provision infrastructure, which can be problematic if they suddenly disappear, as was the case for the Saskatchewan Transportation Company (STC) in 2017.[26]

3. Transportation, Neoliberal Capitalism, and Privatization

"Neoliberalism has, in short, become hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand the world."[28(p3)]

Public transportation today is operating within the broader conditions of neoliberal capitalism. As defined by Harvey,[28] neoliberalism is characterized by the diminishing role of the state, the expansion of market rule, and the promotion of individualism, and has now become the dominant ideology underpinning each of our social structures. Many sectors—transportation being no exception—are now characterized by monopolistic or oligopolistic corporate control, the driving out of local business, neglect of local economic development considerations, and the erosion of workers' rights.[29] Public transportation policy has become dominated by the logics of exchange value, economic efficiency, and private capital accumulation.[30] According to Goulquier et al.,[31] in many cases, Canadian neoliberal transport policy has created rural public transport that is too difficult or expensive to use, thus undermining and destabilizing its existence. The service cuts to public transportation discussed throughout this report must be understood as a result of neoliberal austerity consistent with broader government rollbacks in the neoliberal era.[32,33]

Along with government rollback has been the rollout of privatization. The rising popularity of public-private partnerships in transportation projects is one example of this, with widespread support in areas such as Alberta,[34] as well as the proliferation of ride-hailing services such as Uber and Lyft.[35] Wilt[36] argues that North American transportation policy is characterized by decades of privileging the private and the individual over the public. The private is notably distinct from the public by its framing of "consumers" rather than "citizens".[37] This is not an inconsequential discourse. As Warner and Hefetz[37] argue, "consumer voice and citizen voice are not the same. Market solutions rest on the logic of individual self-interest and this constrains their ability to address the broader collective well-being of the region."[(p85)] In other words, the privatization of transport has distinct consequences for equity. Service

provision—particularly of a service as fundamental as transportation—needs to serve more than those who can pay, and must ensure democracy, equity, and community. Public voice is being neglected in the rhetoric of neoliberalism, privatization, and austerity, but it is essential to any form of effective public transportation system.

4. The Particular Context of Rural, Remote, and Northern Canada

"If some countries have too much history, we have too much geography."
William Lyon Mackenzie King, 1936[38]

Many Canadian provinces can be characterized as having few major centres, but containing large rural hinterlands with many small towns. In many cases, there are limited linkages between the towns of the hinterlands. Travel generally involves long distances between towns or regions and there are often areas of low (and declining) population density and few or no services between towns.[39] Rural population density poses challenges for rural and remote public transport and it has declined with transport reform (the withdrawal of public services from rural and remote areas) at the same time that the population is aging and driving may be difficult. Buses are highly regionalized, under provincial jurisdiction and ridership is declining with reduced services. In the case of remote—often Indigenous—communities, rail travel and seasonal (ice) roads may be the only transportation modes available, and these are being eroded by climate change.[40] Driving can be challenging due to poor road conditions, severe weather, traffic accidents, and slow-moving vehicles. There are also gaps in cell phone coverage, leading to vulnerabilities in the case of breakdown or accidents.[41] Transport services are few, often expensive, and may be risky.

The locations of Canadian rural and remote communities are shaped by resource-based industries and major transportation routes; networks often follow a branch railway line. These networks were not expected to be profitable and most were not. Transport links helped to establish the pattern of heartland-hinterland (core-periphery) where hinterlands are "indispensable components of urban regions." They link the prairies and other hinterland regions to the core of Central Canada and the "hinterland cores" to their own peripheries/hinterlands.[42] In this core-periphery/hinterland system, peripheries generally have limited political power and are commonly more strongly linked to their core than to other hinterland areas.

In Canada, these transportation networks shaped by geography and the export of natural resources can create a regional form that resembles a branching tree or dendrite. This form is commonly labeled a dendritic system in location theory,[22,43,44] "a hierarchy of commercial centers wherein any center deals with a number of lower-level centers but with only one higher level center while the whole system focuses on one entrepôt city."[45(p291)] Appleby further notes that the links within a dendritic system are dictated by transportation. The lack or erasure of linkages between similar places in the hierarchy allows the center to dominate and peripheralize other places, extracting surplus in the process of circulation. The physical structure of transportation and how it connects one place to another in the transport of goods and services can create a virtual monopoly/monopsony system over price and allocation, as it allows for easy, but invisible, class dominance.[46] Actors at different locations in the dendritic system may sort into status/ethnic groups due to unequal conditions of access to social and financial capital.

According to Harvey,[47] location theory is an accurate, but normative, description of the world, as it describes the location of places as a reflection of power relations and the unequal ability of people with money to make places reflect their preferences. Locational analysis shows how different groups in the population have different resources with which to bid. This results in the emergence of a variety of land-use patterns depending upon the preferences of the rich groups who can always use their resources to

dominate the preferences of poor groups. The public has an interest in working to democratize or redistribute those resources so that the wealthy cannot determine the cost of housing or transportation through competitive bidding.[47]

Rural Places are Undergoing Restructuring and Are Dynamic Places of Change

Rural areas have been undergoing long cycles of change with depopulation, aging, increasing diversity and inequality, disparate circumstances, and the expansion of the non-farm population, making intersectional considerations increasingly important in considering needs for transportation services. In the more recent past, rural areas have been faced other challenges, with social and economic restructuring leading to the concentration and rationalization of services, increased dependence of rural production on town jobs, and the contraction of the public sector without the concomitant expansion of the private.[48-50] Rural places have been consistently systematically disadvantaged in this restructuring.[51-53]

Transportation plays a key role in defining the character of rural and remote places because of its strong influence on the possibilities of livelihood, availability of amenities, services and goods, and even food security.[39,54] A Saskatchewan study found that many rural areas do not have transport options connecting to urban centres, and those that do are often restricted by cost, accessibility, and lack of flexible route options.[55] Remoteness is largely a function of transportation, based upon (the regularly accessible) time/distance to urban centres and access to goods and services. Places that are considered "remote" usually have declining population, with few employment opportunities and low income, although they may be important as areas of recreation and leisure. With economic restructuring, natural resource-based industries, many of them remotely located, such as oil and gas, mining, fishing, forestry and hydroelectricity, now rely on long-distance commuting for their mostly-rural workforces.[56,57] Different rural and remote areas have different conditions depending on their proximity to cities; and there is evidence that some rural areas are experiencing a turn-around if they are close to cities (often referred to as the "rurban" phenomenon) or if they are locations where retired professionals seek lifestyle and leisure amenities.[16,58]

Inequalities between urban and rural remote areas in Canada have been increasing, while government support for rural areas has been decreasing.[48] Reduced state commitment without private investment threatens the viability of many rural areas. Rural places have been systematically disadvantaged in social and economic restructuring.[52,53,59] At the same time, inequality has been rising. From 1981–2010, inequality in Canada increased by 20.5%—among the fastest growth of inequality of all OECD countries. There is a large and growing divide between urban and rural areas with "an urban-rural gap in the distribution of earnings that is now much larger with urban areas becoming increasingly important sources of inequality."[60(p63)] This urban-rural gap also exists in regards to transportation inequality. With the closure and concentration of rural services in recent years, heightened inequality in access to transportation has intensified more general socio-economic inequality. As the private sector and governments save money and improve their bottom lines through service reductions, these costs are transferred onto rural users who must pay more, travel farther or forgo services.[61] This, in effect, more severely impacts those who already had lower levels of access to transport. These same people are less likely to have accessible technology to compensate for the loss of transportation services and access to services, for example, the ability to online shop or to find medical advice online.[61] Community concentration implies more and longer trips and different routes as people move around the countryside and between rural and urban places.[62,63] Additionally, changes in the way rural goods are moved, with longer hauling of heavier loads and moving away from rail to trucks--especially b-train two trailer semis--have resulted in the degraded quality of rural road networks. There is an inequitable

allocation of costs and benefits, with the public subsidizing road maintenance and preservation needed due to this rapid degradation, which is not reflected in cost-benefit analyses.[62]

Rural and remote places are also often places of concentrated poverty and racialized segregation. Place plays a role in perpetuating poverty as does the uneven development between places.[64] Constraints on transport-based accessibility "tend to deepen these socio-spatial inequalities leading to multidimensional deprivations and, eventually, poverty traps."[65(p2)] In contrast, the indirect impact of transportation accessibility and mobility in poor regions can improve the quality and access to public goods and social services for poor people living in those areas and lead to poverty alleviation.[65] Improving transportation can be a double-edged sword for rural regions, however; while connecting places to each other, the wrong investments can advantage richer regions at the expense of poorer areas.[59] Instead of large-scale projects, Bigsten and Tengstam[66] argue that broader, more equitable outcomes can be achieved through localized transportation projects with proper consultation and integration of local needs. Without such attention to local needs, the effects of transportation projects are likely to be inequality-enhancing rather than poverty-alleviating, benefiting already well-resourced populations and regions.[67]

Living in Rural and Remote Regions

Especially in the face of centralizing economies and political systems, rural and remote people's lives are integrated into regions and constructed across distance.[50,56-68] Their quality of life and ability to participate in society is thus dependent on access to transportation for healthcare, education, and other essential services, to find work, to see family and friends, to sell and purchase goods, and so on.[69,70] In the face of little good rural public transport, rural distance, flexible work, working hours, consumerism, and automobility (society being designed for the car)[71] together work to encourage self-privatization of the rural transport problem.[72,73] In this system, cars become a form of "social capital,"[52,53,59] which promotes new forms of exclusion and social risks, creating an environment that forces different social groups to draw up private, unequal strategies. Rather than freedom and individuation, mobility has become a process "linked to class, gender and generational subcultures."[72(p2)] The social groups most affected by automobility are the elderly and school-aged children, women who don't work outside the home or who live in one-car households where their partner uses the car during the day, non-car owning households, people with disabilities, and low-income groups.[74] All rural people have to move more, but they are not all able to do it to the same extent or with the same resources; their movements do not have the same social meaning. The bus is perceived as the "poor person's mode of travel".[40,62,75] Without a car, rural opportunities for work and leisure are weakened, while those who have a car find greater ease and comfort, success, and advantage within an auto-centric system. The disadvantaged situation for car-less rural Canadians is more a result of political decisions than technical constraints;[76] it results from the withdrawal of the state from providing social services to rural places and disadvantaged rural people, even as those same services might be offered to cities.[50]

Living in rural areas is an economic disadvantage, even when controlling for effects of employment, education, race/ethnicity, gender, and age, and it is especially costly in terms of foregone income for people with advanced education or employed in high-level service industry. Still, women, people without post-secondary education, racialized people, and older people are all particularly economically disadvantaged in non-metro areas, and communications and information technology have not leveled the playing field between urban and rural.[77] Without proper transportation linking rural and remote regions, communities face serious challenges in retaining, attracting, and investing in business and associated flows of people. As a result, rural and remote communities face "severe social and economic impacts as a result of deregulation"[16(p31)] (also see [78]).

On the other hand, rural places with good connections to other places do not suffer the same disadvantages: these wage disparities are increasingly and inversely linked to how well a location is networked with other locations. A networked city or town will offer a higher wage even after accounting for cost of living and amenities. Conversely, a place's location on the periphery results in lower wages due to the lower bargaining power of labour and neighborhood effects.[79]

Case Study: Mobility in Huron County

In many parts of rural Canada, access to timely, safe, and reliable public transportation remains out of reach especially for the most vulnerable members of society. Although many individuals may be structurally dependent on personal vehicles for travel, evidence from Huron county in the Canadian province of Ontario illustrates how a sparse distribution of rural populations combined with extant vulnerabilities can combine to limit mobility options for youth, seniors, people with disabilities, women, and low-income populations.

As of 2016, Huron County had a total population of 59,297 (an increase of 0.3 per cent from 2011). This corresponds to a population density of 17.4 persons per km^2; the county is 3,399.63 km^2.[80] Approximately 5.3 per cent of the population is unemployed with a significant proportion of seniors residing in the county. Although research on rural transportation in Canada is rather limited, extant evidence shows that youth, people with disabilities, women, seniors, and low-income populations face severe limitations to accessing services such as healthcare, employment opportunities and access to supplies such as food. Although a patchwork of transportation services exist in parts of Huron county such as EasyRide, the majority of public transport services are only available in larger centers (for example the city of Stratford Public Transit in nearby Perth county) and this significantly hampers mobility and access to goods and services. In a research study on transportation disadvantage in Huron county, Marr[81] concluded that "there are people who live way up in North Huron who are half an hour or more from the nearest grocery store."[(p111)] For many communities in rural areas such as Huron county, the unavailability of necessities as exemplified in the preceding quote is increasingly normalized.

Perhaps the closest to a coordinated transportation system in Huron county has been the EasyRide service, which operates through a collaborative network of transport providers in Perth and Huron counties. The service began in June 2009 and offers transportation services "for registered clients including seniors, people without access to transportation, those with physical or cognitive limitations, and those who do not have family and friends who can assist."[82(p9)] While welcome, EasyRide faces multiple challenges and is largely financially inaccessible to many seniors.[82]

The combination of declining populations and lack of profitability of routes has meant that many private for-profit bus companies do not provide services in Huron county. For example, the Greyhound bus company which recently pulled out of Canada entirely discontinued its Kitchener to London route as far back as July 2011 due to low ridership. These decisions necessitate public transportation options especially for many rural communities in Canada where low density populations are rendered vulnerable by the absence of travel options.

The reality in many parts of rural Canada—such as Huron county—where transportation access is very challenging is that many agencies *do* provide transportation services albeit in an uncoordinated fashion. As Marr[81] concluded in his study of rural transportation "a solution to transportation disadvantage in Huron County is not necessarily an entirely new service with new resources, but rather better coordination between organizations with different clients but similar destinations/routes."[(p116)]

Residents of remote and rural communities are able to access a smaller range of services and opportunities as compared to urban residents, as well as a smaller number of potential travel sites. It is more difficult for them to travel.[16] Meanwhile, restructuring has meant that more rural residents are expected to travel long distances for work and services.[57] At the same time, transport costs are higher and public transportation has been diminished or withdrawn due to austerity. Increasingly, rural and remote places are being asked to come up with local, self-help solutions to what can be seen as essential services, infrastructure, and problems of mobility and accessibility.

This may be problematic, especially given the retreat of the state from commitments to universal social rights, public services and entitlements. While one may welcome, in some circumstances "community engagement and control of assets and services, there are dangers if this is open only to those with capacity to mitigate a withdrawal by the state, leaving others without essential services and infrastructure. An absent state in this sense is a recipe for a two-speed countryside, underpinned by the values of neoliberalism."[50(p267)]

B. RESULTS: ISSUES IDENTIFIED

5. Mobility Rights, Justice, and Capabilities

"Freedom of mobility may be considered a universal human right, yet in practice it exists in relation to class, race, sexuality, gender, and ability exclusions from public space, from national citizenship, from access to resources, and from the means of mobility at all scales." …. "Instead, we must consider how to combine the struggles for accessibility and bodily freedom of movement, for equitable infrastructures and spatial designs that support rights to movement, for fair and just forms of sustainable transport and ecological urbanism that reduce environmental harms and burdens, and for the equitable global distribution of natural resources and rights to move or dwell." [6(p20)]

This subsection summarizes recent theories and conceptualizations of mobility rights, justice, and capabilities as they have been deployed by scholars and activists in a variety of Global North and Global South settings. This review identified a comparative dearth of mobility rights-centred scholarship for the United States and Canada even more.

Global North scholars argue that mobility correlates with structures of power and operates as both a "condition of [the] possibility and practice of democracy"[83(p2)] and therefore a "political reading of mobility is needed."[83(p2)] By defining, qualifying, and working to ensure citizens' rights to mobility, scholars, advocates, and activists work on *and* resist the mobility and transport exclusions engendered by societal and political status quos. Mobility rights initiatives in the United States, United Kingdom, and European Union have employed a diverse array of strategies to reverse the political denial and withholding of mobility as a constitutionally enshrined and legislated right. For instance, Baldwin[84] explores "the constitutional ramifications of reduced access for non-motor vehicle travel"[(p3)] in the United States and argues how denials of access to transportation systems hold potential to create "a cause of action under the federal equal protection doctrine of "total deprivation'."[84(pp5-6)] Yet, because courts have either denied or failed to adequately confirm how mobility and transportation are among the "bare necessities of life,"[84(p49)] "right to travel claim[s] based on lack of transportation access [are] unlikely to succeed as a stand-alone claim."[84(p49)] No less importantly, Baldwin notes contemporary limitations in "most laws, regulations, and other state actions relating to transportation."[84(p49)] Because these are "facially neutral [and] do not explicitly single out one group,"[84(p49)] this means that the special and unique needs of rural, remote, and otherwise minoritized and transport-deprived populations go

unaddressed and unmet. Thus, without clearly defined rights to mobility and transport, excluded social groups will continue to be denied entry to political processes and equity in turn.[83] Equity here refers to "the distribution of impacts (benefits and costs) and whether that distribution is considered fair and appropriate" (Litman, 2002 in [85p9]).

The precedent confirms how Canada's rural and remote communities are significantly and historically underserved by public and private transport infrastructures and services, and their rights to mobility poorly protected. It also shows how mobility and transportation deficits correlate with reduced political participation and representation. Indeed, our review found that mobility not only results from political practices and policy positions; mobility also determines communities' participation in and receipts of benefits from the same. Indeed, mobility rights are foundational to communities' ability to access power; in the absence of mobility rights, power and representation are undeniably undercut and diminished. Canada is a signatory to the International Covenant on Civil and Political Rights which came into force in Canada in 1976 and contains provisions that give any person within its territory "the right of liberty of movement and freedom to choose his residence."[86] Further, Scott Streiner, 2015-2021 Chair and CEO of the Canadian Transportation Agency is on record stating that "Accessibility is a fundamental human right and we are committed to ensuring that this right is realized in practice."[87(np)] While Canadian rights to mobility and accessible transportation might be assumed by the recognition of these rights with regards to people with disabilities, as shown in the "Accessible Transportation for Persons with Disabilities Regulations," in fact, this regulation does not state that people with disabilities have an absolute right to transportation, but rather, if transportation is provided to abled travelers, services that offer an equal level of accessibility must be available for people with disabilities.[87]

In recognizing the ways that the legally defined and protected right to mobility is necessary for transport *and* access equity, scholars and practitioners in Mexico[223] and the United States have proposed the establishment of a "Mobility Bill of Rights."[88(p100)] Not only would these affirm and enhance citizens' right to affordable, fair, environmentally friendly, and publicly funded transportation, but the call demands that "issues of socioeconomic justice be brought into discussions of sustainable transport, ensuring that planning and development aims for an equitable distribution of social benefits."[88(pp100-101)] Through key improvements to rural and remote residents' mobility rights, "localism and … grassroots projects can be facilitated in opposition to centralization."[88(p104)]

Mobility as Structuring Principle

These realities confirm mobility and transportation's potent generative and structuring properties. For example, Grieco and Urry[89] describe how the built and institutional environments and cultural geographies bound up with transportation, and "car culture" especially, give rise to "patterns of kinship, sociability, habitation, and workforce participation"[(p293)] and become "emotionally embedded in forms of familial life and racial coding."[(p294)] In turn, scholars note how variances in mobility across rural and urban scales give rise to spatially- and "socio-culturally specific modes of living"[90(p1)] which, for rural and remote persons especially, are characterized by comparatively greater experiences of deprivation, disenfranchisement, and exclusion. The available research confirms how rural and remote communities' comparatively diminished access to mobility and transportation has amplified *and* concretized the rural-urban divide and the class, ethnic and racial, political, economic, *and* cultural inequalities these yield.[90]

When mobility is *not protected* as a right, innumerable negative consequences can follow. Limited mobility and transportation produce quantifiably steep constraints to and impacts on quality of life; several quality of life factors including low life satisfaction, isolation, and poor self-reported health are reportedly negatively associated with lack of transportation.[91,92] Quality of life concerns are especially urgent among vulnerable and marginalized persons. For instance, numerous studies have found that

rural older adults are able to remain independent and report higher life satisfaction when distant activities and services are reliably accessible. (e.g.,[92,93,94]). The lack of feasible transportation options for older adults often leads to familial strain from having to rely on family members for transportation and/or decreased participation in social activities and participation, both leading to negative impact on quality of life and negative impact on self-esteem. Despite the consensus among studies on the life-altering nature of these challenges for Canada's elderly, transportation mobility of older adults in rural areas has been neglected in policy and infrastructure.[92] This suggests a bias toward the social and political expendability of older persons, especially those living in rural and remote locations.

Mobility and transportation inadequacies also infringe on disabled persons' rights and enact unwieldy impacts on their lives. In discussing how disability is "a socially produced experience," Acker-Verney and CRIAW-ICREF[7] confirm the ways that diminished access to physical space creates additional disadvantages for already-vulnerable persons (see also [95(p308)]). The literature confirms that transportation deficits worsen the mobility challenges and quality of life effects experienced by persons with physical disabilities, for whom accessibility—defined both as "the ease of reaching destinations"[96(p280)] and "the potential of opportunities for interaction"[97(p1)]—is severely compromised or altogether denied when public transport options are uneven or unavailable. Even when efforts are made to address the disability-specific dimension of mobility and transportation access and rights, gaps and oversights remain. For instance, public transportation systems in urban and rural locales especially continue to neglect principles of universal design, which "aims to provide all individuals with or without disabilities in a region with the right to access and use the same public systems at the same level of service."[96(p282)] Scholars note how the lack of universal design "can be just as disabling as a physical condition, which denies people with physical disabilities the same levels of access as people without disabilities." [96(p282)] Thus, the mobility needs and rights of the 14% of the Canadian population living with physical disability[80] remain severely constrained, especially in rural and remote areas where public sector transportation options suitable for persons with physical disabilities are scarce, if they exist at all.

This review uncovered some of the ways that the *exclusion* of mobility as a right is explained and justified by the powers that-be. Sheller[99] describes "the power of discourses, practices and infrastructures of mobility in creating the effects of both movement and stasis"[(p2)] and notes the ways that discourses in particular underlie "the organization of power around systems of governing mobility and immobility at various scales."[(p17)] Indeed, mobility scholars have drawn attention to the ways that cultural and political rhetorics naturalize, normalize, and, in the doing, perpetuate rural-urban mobility differences. For instance, Schwanen[101] describes how, in the context of informal transportation and transport entrepreneurship that fills gaps in publicly-funded rural services, the "providers and users of those services risk being subjectified in specific ways – as backward, undisciplined, poor, vulnerable and unsuccessful."[(p8)] Beyond being prejudicially marked by class biases and racist encoding, such explanations conspicuously overlook the ways that how "uneven mobility" results from "racialized colonial histories and neocolonial presents." [101(p2)] Among the political purposes of such rhetoric, then, is the effort to explain and legitimate how transport inequities are more the 'fault' of rural and remote communities, rather than primarily or exclusively attributable to federal and provincial structures and infrastructures that both supersede rural and remote communities' needs and demands *and* dominate decision-making and policies around transportation. Rhetorical strategies such as these help to draw attention away from the social and political costs that follow when governments fail to prioritize mobility as an essential right.

Correspondingly, this review identified another set of discourses at-work in explanations of the lack of rural and remote public transportation. Namely, as part of governmental attempts to reduce responsibility and accountability for lacking public sector transportation, politicians and public sector

stakeholders emphasize the benefits that follow from families and communities working together to develop their own solutions to the challenges posed by government transport gaps. By capitalizing on rural ideologies that "emphasize self-reliance and the interdependence of family, friends and neighbours,"[92(p8)] politicians valorize 'homegrown' rather than government-led structural and infrastructural solutions. In the doing, the government deemphasizes and distracts from its vital responsibility to resolve key mobility challenges and the detrimental impacts to quality of life these produce.[92] These deflections meet neoliberal ends: not only are government functions offloaded to individuals, but the emergence and expansion of private sector solutions for communities' mobility and transportation needs are tacitly supported.[102,95] They further confirm the extent to which transportation rights and systems "are culturally shaped and politically governed by mobility regimes that govern who and what can move (or stay put), when, where, how and under what conditions."[6(p19)]

While transportation planners have rarely considered justice and equity in their decisions,[103] transport researchers have become increasingly focused on these issues. [104,105] Moving away from the economic-utilitarian focus of prevailing "well-being" and quality-of-life work, recent research on transport engages with capabilities literature.[103,106,107] These researchers argue that mobility is key to the realization of human capabilities--focusing on what people can achieve if provided the essentials--and must be designed as such; but transportation users must be understood to be heterogeneous, not "the average traveler;" and transportation planning and policy must be formulated in light of how they will affect and compound disadvantage.[103] Intersectionality illustrates the processes and practices by which these integrated points of social identity can be used toward a more just notion of mobility. In merging their concerns for mobility as a right with a capabilities-specific focus, proponents of what Sheller[108] calls "new mobilities paradigms"—which entail "combining social, spatial, and critical theory in new ways" to transcend "old debates" and bridge "disciplinary boundaries"[(p790)]—this review calls attention to "normative issues of mobility justice (such as movements for sustainable mobility and mobility rights) and mobility capabilities (such as the demands of social movements for rights of access to the city and transportation justice)."[108(pp789-790)]

Against the backdrop of climate change especially, Baldwin[84] notes that "conflicts over land use and transportation modes will become more frequent [as interest] groups will fight over scarcer resources."[(p218)] Such scenarios highlight the integral necessity of mobility rights *and* mobility justice,[109] which Sheller[16] describes as "one of the crucial political and ethical issues of our day, when the entire world faces the urgent question of how to make the transition to more environmentally sustainable and socially just mobilities."[(p17)] Sheller goes on to call for the development of 'mobility manifestos' capable of paving the way for action in the areas of "uneven freedoms of mobility and unequal capabilities," and associated "struggles over the just circulation of goods, resources, energy."[16(p30)] There is therefore special urgency for efforts to i) establish and ensure mobility as a right due all Canadian citizens irrespective of residency, and ii) develop mobility, social, *and* disability justice strategies to resolve rural-urban mobility and transportation inequities. Rights- and justice-centred reforms will help to sustainably and in an environmentally-responsive way remedy the 'deserts' produced by mobility and transport disparities in rural and remote regions, while also reducing the threats posed by climate change.

Through socio-economic and political corrections to the inequitable distribution (or maldistribution[224]) of mobility rights and resources,[83(pp2,9)] rural and remote persons and communities gain the ability to not only better "enter the political process and accede to equality."[83(p2)] In achieving mobility and transport rights, rural and remote communities' participation in democratic processes and practices is more fully and equitably realized, and democratic representation of *and* action on their mobility-linked needs better achieved. For instance, Aradau and Huysmans[83] speak of the democratizing and equalizing power inherent in mobility and mobility rights. Specifically, they note how "the democratic quality of practices

of mobility functions through the inscription of equality, both through the articulation of equal rights and through the egalitarian force of the 'mob' or mass politics."[(p3)] By important relation, Aradau and Huysmans'[83] description of mobility as a "form of sociality with the stranger than leads to the creation of rights and mass mobilisation", and mobility-centered democratic reforms as not simply a "'model' of representation or participation, but a practice that disturbs … the political order."[(p2)] And, in the same ways that urban mobility and transport activists argue for the "right to the city,"[110-112] which refers to the "possibility to physically access the city, to the ability to shape the city [and] decisions about its future,"[112(p134)] this review argues for rights to good rural places[50] and the city for rural and remote people, including the resources and opportunities each affords.

6. Transport Poverty, Transport Disadvantage and Transport-related Social Exclusion

"Transport 'goods and bads' are unevenly distributed across the population: the wealthiest in society tend to gain the most benefits from the transport system, whilst the poorest suffer its worst effects."[225(p1)]

Transportation policy and transport infrastructure impact the social wellbeing of individuals and their communities. Though not extensive, there has been some research drawing on theories and ideas from sociology, transport planning, geography and rural development to interrogate how transportation relates to poverty, social disadvantage, social exclusion and isolation. This section will provide an overview of the current understanding of transport-related social exclusion and the current policies and political choices in transportation that contribute to structural disadvantage.

Transport Poverty & Transport Disadvantage

Several research studies on social impacts of transportation policies focus specifically on the relationship between transportation and economic opportunities. Transport poverty describes how transportation policy decisions may increase poverty for vulnerable groups by separating people from economic opportunities. Lack of access to affordable and accessible transportation can separate people from jobs, since in many urban areas, locations with higher concentrations of poverty often lack high quality transportation options[113] placing a barrier between people and jobs. This body of work partly draws on spatial mismatch theory,[114, 115, 116, 117] which posits that populations who can afford transportation and housing will move to suburban areas, jobs and services will follow, leaving areas with affordable housing with poor services and fewer job options.

However, many scholars agree that the relationships between transportation and poverty are so complex that the concept of spatial mismatch alone is inadequate, and a category of "transport poverty" is required to understand this complexity (e.g.,[118,115]). Transportation poverty is a combination of mobility poverty, accessibility poverty, challenges with transport affordability and a disproportionate exposure to transport externalities borne by the poor. The impacts of transport poverty are understood to manifest primarily on an individual (vs. the collective) level, although certain groups are more vulnerable to transport poverty than others. Even within the same household, individuals may experience different levels of transport poverty depending on factors such as gender, age, disability, and economic independence. As lived circumstances change over time and space (e.g., personal health, work status), so too do impacts of transport poverty.[119] In a comprehensive review of literature from parts of North America and Europe, Titheridge et al.[117] concluded that many low-income households spend a disproportionate amount of income on their transportation. The connections between transportation and poverty are often such that particularly vulnerable groups (women, low-income populations, Indigenous people) may experience a higher burden of poverty connected to transport policies than others. Sanchez[120] has also argued that transportation is related to poverty partly because, while

research on transport infrastructures such as bridges and roads receive more evaluation funding, there is less funding dedicated to research on social impacts of transport policies.

Some research on the social impacts of transportation has focused less on "poverty" and economic implications but on "disadvantage" and equity dimensions of transportation policies. This body of work often focuses on the ways transportation may compound existing social disadvantages as well as distributional impacts of transportation policy choices. In this view, social vulnerabilities and structural factors are realized together as transportation disadvantage. For instance, in their study of transportation disadvantage in five rural counties of North Carolina, USA, Combs et al.[121] found that transportation disadvantage was predicted by social vulnerability based on gender, age, ethnicity, etc., and structural factors like long distances to destinations, high cost of travel, and limited options for public transit or paratransit. These findings are similar to the work of Delbosc and Currie[116] on transportation disadvantage in Australia, who found that the relationship between transportation disadvantage and social exclusion is strengthened in fringe areas of big cities such as Melbourne. In addition to the geographic patterns of transportation disadvantage, Combs et al.[121] cautioned that groups that are not necessarily geographically clustered (such as college students without a car) may experience transport disadvantage in a manner that is concealed.

Most of the studies on transportation disadvantage have concluded that young adults without a driver's license, seniors, low-income households, immigrants, women, Indigenous populations, racialized minorities, people with disabilities, outer/fringe urban dwellers, and the unemployed are often those most at risk of experiencing transportation disadvantage.[113,121-123] While studies that identify the disproportionate burden of transportation disadvantage on these vulnerable groups are often informed by social and environmental justice frameworks, Pereira and Schwanen[105] critique the literature for focusing on transportation and its distributional effects while failing to sufficiently engage with ethical and theoretical notions of justice. Several expansive reviews, particularly outside the Canadian context, have focused on social impacts of transportation policy decisions and the dynamics of transportation disadvantage. For example, Markovich and Lucas[122] have examined transportation disadvantage through analysis of factors such as accessibility, casualties and injuries, noise levels and nuisance due to transportation, air pollution, aversion behaviours, public safety and community severance and concluded that transportation policies tend to further marginalize already-vulnerable groups.

The social impacts of transportation are rooted in existing structural inequalities. For example, transport disadvantage furthers economic disadvantage because lack of transportation impacts access to jobs/education, via limitations of travel distance and ability to trip chain (e.g.,[74, 119]). Transport disadvantage impacts physical health by leading the transport disadvantaged to use more dangerous forms of transportation (e.g., biking on car-dominated roads), increasing exposure to street violence, and limiting access to health care services (e.g., [125]). Social factors such as isolation, familial stress, and inability to attend social events, entertainment, faith-based events, and familial stress as a result of transportation inaccessibility are examples of how transportation disadvantage furthers social exclusion. The social impacts of transportation disadvantage are especially important because transportation disadvantage can have wide social considerations including quality of life, social wellbeing, and community resilience.[122] Vulnerabilities created by transportation policy decisions do not simply have disbenefits for the marginalized but can simultaneously benefit the already well off (as stated in the introductory quote to this section). [225]

Conceptualizing Transport-related Social Exclusion

The literature points to a need for centering social inclusion in order to meet goals of transport equity in any meaningful way. It is important to delineate our conceptualization of transport-related social

exclusion as complex, relational, and dynamic. Exclusion has been defined in a variety of different ways: unequal participation;[75] unequal access, participation, and autonomy;[125] relational disadvantage and unequal relations of resources and powers at individual, group, and state levels.[126] To summarize broadly, all of these definitions centre inequality and unjust relationships of power. Additionally, Markovich and Lucas[122] point out that exclusion is primarily a force of deficit, deprivation, wants and needs, rather than active punishment or benefits per se. Overall, the literature approaches exclusion as iterative and circular (e.g.,[123, 126]). For example, mobility impacts an individual's ability to access work, which impacts that individual's income, which further impacts their mobility. Exclusion often begets further exclusion and exacerbates other types of social disadvantage; importantly, this results in the accumulation of disadvantage.[127] This phenomenon characterizes many infrastructure projects and transportation policies which often only benefit the already-advantaged. For example, the construction of new roads only benefits those who already have a personal vehicle[118] and sidewalks often fall into disrepair.

Church et al.[125(p125)] organize exclusion into several categories: physical, geographical, economic, time-based, fear-based, and spatial. While this review follows this delineation, it is not the only conceptual model. However, it was found to be the most broadly inclusive of the various ways transportation policies exclude people, groups, and communities.

Physical exclusion describes exclusion based on the physical shapes of travel and transportation. For example, Wasfi, Steinmetz-Wood, & Levinson[128] found that higher physical accessibility and higher distribution of bus stops in neighbourhoods are associated with lower unmet desired work and shopping trips. The physical infrastructure of transportation such as the condition of roads and sidewalks; placement of crosswalks, bridges, and highways; the condition of bus stop shelters and benches; and lack of availability of mobility aids on buses and trains can also contribute to exclusion.

Geographical exclusion describes the distribution of transportation networks over land and between places. Since the 1950s, the average distance covered by social, familial, and work networks has increased, leading to a more dispersed character with fewer overlapping affiliations. This change may be attributed to the increased importance of a driver's license in getting a job, attending school, accessing health care services, and socializing.[129] In rural and remote areas, geographic exclusion is felt more acutely. Litman[130] linked social exclusion to geographic isolation, which is exacerbated by climate extremes. Geography is especially significant in accessing essential services, such as health care.[131] Arora[132] found that, due to limited options for inter-city travel, car-ownership is central in feelings of connectedness, independence, and confidence.

Economic exclusion is the most well-studied sphere of transportation-related exclusion. Various studies have shown the economic realities often create barriers in access. Cass, Shove, & Urry[129] found that expenses of car-ownership, including purchasing a car, paying insurance, gas, tolls, and parking fees, mean that low-income people are restricted to less reliable and less safe forms of transportation, such as walking on high-traffic streets without sidewalks or controlled crosswalks. Lucas[123] found that low income individuals experience disproportionate levels of transport disadvantage, which in turn affects the ability to access work, education, and other necessities. Transportation is a financial burden in low income households[130] and consequently, under-participation in daily activities due to transport-related exclusion has been found especially in low-income households.[133] A study of new immigrants in rural Ontario found that economic limitations were one of the main causes of mobility-based exclusion. Rural newcomer families report that two cars are needed to fulfill grocery, health, and social needs, but this was not an affordable option for their first few years in Canada, often leading to decreased participation

in important programs such as settlement services, language classes, and employment support.[119,121,132,137]

Case Study: Churchill, Manitoba

Northern Manitoba is a complex landscape and the town of Churchill embodies it. Inaccessibility, difficult terrain (permafrost) to build on, and a shifting infrastructure isolate Churchill from much of the world. The situation is compounded by socioeconomic disadvantages that exemplify characteristics of transport poverty—where there are limited opportunities for people to link with other communities, attend to medical procedures or find employment opportunities.[114]

Churchill is located on the Hudson Bay, providing an important shipping route for grain from the Canadian prairies to the rest of the world—in other words, linking rural and remote Canada and the wider world. The main movement of people and goods and services in and out of Churchill is by the Hudson Bay Railway (HBR). Since the establishment of the Churchill Port, the train has enabled the movement of numerous people as well as various goods including food, agricultural products, construction material, and perishables.[138] Although an airport exists, the cost of airfare or transporting goods by air to the region is much higher. Without roads to Churchill, travelers and residents have thus relied upon the railway for nearly a century as the most affordable means of transportation and for getting food supplies.

For Indigenous families living along the Bay line, the train is a primary source of mobility and economic development. The rail is a place of work;the HBR and CNR have employed Indigenous men—mostly Cree—to maintain the railway, year-round, for nearly a hundred years. Not unlike the Highway of Tears in Northern British Columbia, mobility patterns in Churchill are "deeply gendered and racialized."[139(p299)] A short road was built and traveled on by the Indigenous people in the area, but that same road was used to relocate the Sayisi Dene in the 1950s and this relocation resulted in deep socio-economic problems.[140] Additionally, the train played a significant role in the history of Indian Residential schools. One survivor, Larry Beardy, talked about the "train of tears" as he was taken, along with other children from Churchill to Dauphin, Manitoba in order to attend school.[141]

The train has long been a means of coming and of leaving town. Someone from there once said, "People solved their family conflicts by taking the train out of town. The train was the most reliable and affordable means of escaping domestic abuse, family violence and alcoholism. If one needed a better living situation or employment, one would leave on the train in search of a better future. It was a way to start a new life elsewhere."

Dependency on the privately-owned train was tested when it derailed in the spring of 2017 from flooding after record snowfalls attributed to climate change were seen that winter. The track was built on permafrost that degraded, exacerbating challenges for the poor transportation infrastructure.[142] The train was out for 560 days—a year and a half! This situation became a crisis with the cost of food rising to cover the cost of shipping by air. Senator Patricia Bovey said, "The community is in a dire need at the moment and urgently requires assistance from both the federal and provincial governments, a subsidy to get supplies to the community."[143]

In 2018, the federal government funded the railroad repairs and handed management over to a newly formed stakeholder group.[144] The arrangement later consolidated into One North, a company representing Northern Manitoba and Kivalliq communities in western Nunavut.[145, 146] The future remains uncertain.

Time-based exclusion has been far less explored in the literature. Cass, Shove, & Urry[129] describe limitations on access experienced by people who are dependent on public transportation. Before and after working hours, transportation to cheap shopping centres and leisure activities was often limited by the time and frequency of public transit services. Lamanna et al.[94] found that rural seniors expressed similar restrictions on their movement due to their dependence on the public transit schedules.

Lucas[123] points to time as a restrictive factor for many working mothers, who are bound to the scheduling of public transportation in fulfilling work and parenting responsibilities. To describe this phenomenon, Cass, Shove, and Urry[129] define the concept of *time sovereignty*, "the degree to which people do or do not have control over, or flexibility built into, their temporal regime." [(p551)]

Fear-based exclusion stems from fear of crime and perceived insecurity which makes people avoid certain sites. Lättman et al.[134] found that higher perception of safety was a predictor of perceived accessibility as well as perception of quality.

Lubitow, Abelson, and Carpenter[135] report that the harassment experienced by transgender individuals on public transportation impinges on transgender individuals' comfort with considering public transportation. A subtype of fear-based exclusion discussed in the literature is related to stereotypes and over-surveillance, wherein stereotypes of certain subgroups lead to over-surveillance and discomfort that limits participation.

Finally, **space-based exclusion** involves considerations of design, surveillance, and management of space and how this can discourage certain groups from using certain mobility systems. Space-based exclusion most frequently impacts groups who are targets of prejudice and discrimination[125] such as racialized groups. Space-based exclusion is by far the most under-studied facet of transport-based social exclusion.

Transport-based exclusion is a complex experience that can be complicated and compounded by intersecting identities and factors. For example, transport-based exclusion has been found to have gendered differences.[136] Women are far more likely to experience sexual harassment or assault on public transportation and while hitchhiking. Women are also often responsible for coordinating travel for their children, especially in car-deficient households. Additionally, these gendered dimensions of exclusion can overlap with other positions such as racialized status. For example, the Highway of Tears (Highway 16) has been the site of the murders and disappearances of many Indigenous women, so for people whose only transportation option is to hitchhike, race and gender inevitably come to constitute elements of their mobility. As the following case study demonstrates, the embodiment of transport disadvantage in remote regions can be further complicated by external factors such as climate change, state policies, and public/private/Indigenous relationships.

7. Democracy, Decision-making, Privatization and Austerity

*"The ultimate goal of radical transportation politics should be fully democratized control,
with riders having legitimized power over decisions."*[36(p12)]

As made clear in previous sections, transportation impacts multiple facets of people's lives as well as the communities they live in. An intersectional approach further shows that these impacts do not happen equitably, but rather that particular people and places disproportionately bear the costs of transportation, or lack thereof. Indeed, Canada is in danger of developing a permanent mobility underclass in which structural immobility intersects with other sources of disadvantage such that "lack of mobility limits their ability to obtain and keep jobs, access basic services, contribute to society or maintain a reasonable quality of life."[147] This section will therefore explore the literature on decision-

making in transportation, with particular attention to issues of democracy and public participation; more inclusive and equity-oriented approaches to transportation appraisal; and both the consequences of and push-back against privatization and austerity measures.

Public Participation in Transportation Decision-Making

Given historical injustices and ongoing contemporary inequality related to transportation decision-making, the importance of public involvement is widely accepted.[148-150] At its root, public involvement is fundamental to the democratic governance of transportation as a public good.[148,37] People have the right to participate in decisions that affect their lives – particularly people of colour, low-income people, and others who have been historically disadvantaged by transportation policy.[148,149] Altshuler[104] points to a long tradition of transportation projects displacing, disrupting, and/or degrading already disadvantaged communities, often citing an economic rationale. Effective public involvement, it is argued, can reduce the negative outcomes of transportation projects and lead to more equitable policy-making.[148,149]

There are several models and examples of public participation in transportation decision-making. In their guidance document on social and economic sustainability performance measures for public transportation, Unger et al.[150] outline the role of the public in shaping the definition of sustainability and the ways that transit agencies work toward it. Communities in rural America that are trying to develop solutions for transportation challenges among seniors and people with disabilities are being encouraged to conduct comprehensive transportation assessments and/or a community-wide needs assessment that brings a diverse group of community members and stakeholders to the table.[151] By including public opinion in the decision-making process, these communities can most effectively meet people's needs and use their limited resources most efficiently.[151] The Pennsylvania Department of Transportation's *Every Voice Counts* project was particularly concerned with environmental justice and on promoting more equitable and just outcomes of transportation planning.[149] Their Public Involvement Strategy and Checklist includes a number of important considerations for including affected populations into the transportation planning process.[149] Triplett[148] proposes a six-step Public Participation Process Model to more robustly achieve civic engagement in transportation policy-making: (1) inform, (2) access, (3) listen, (4) engage/involve, (5) standing/influence, (6) influence policy-making. Each of these models and examples reflect ways that the public can have more control over their mobility and help to institutionalize transportation equity.

From Economy to Equity in Transportation Appraisal

The turn to public involvement and equity pushes against a traditionally economic-dominated approach to transportation appraisal. Public transport service quality and performance evaluations are widespread around the world.[152] However, these evaluations tend to be economic-dominated, with many experts now arguing that transportation appraisal needs to incorporate a broader range of impacts and stakeholders.[150,153-156] Hickman and Dean[153] argue that traditional cost-benefit analyses tend to be apolitical; ignore local needs, priorities, and members of the public; exclude important impacts; and unequally distribute costs and benefits–largely to the harm of already marginalized groups and the benefit of those who are already more privileged. Shi and Zhou[157] similarly critique traditional cost-benefit analyses for neglecting issues of equity in favour of economic efficiency. As an alternative, triple bottom line measurements are proposed to assess social, environmental, and economic aspects of transportation.[154,150] Arguing that triple bottom line measurements have not been widely applied by transportation agencies, Unger et al.[150] identify 57 top social and economic sustainability performance measures and outline six critical areas for achieving them: (1) community building and engagement; (2)

economic impacts; (3) employees and workforce; (4) financial; (5) mobility and accessibility; and (6) safety and emergency preparedness. Jones and Lucas[154] add distributional impacts to their triple bottom line assessment – including the distribution of impacts across space, across time, and by population sector – positing that each effect of transportation decision-making potentially has economic, environmental, social, *and* distributional consequences. They argue in particular for an assessment of five main social impacts of transportation: (1) accessibility; (2) movement and activities; (3) health-related outcomes; (4) finance-related; and (5) community-related.[154]

Another predominant alternative to the traditional economic approach is an equity analysis. As defined by Bills and Walker,[158] "transportation equity refers to the fair or just distribution of transportation costs and benefits among current (and future) members of society."[(p62)] Considerations for equity have been difficult to incorporate into transportation decision-making, with the economic focus overshadowing concerns for redistribution.[104] In the National Transportation Policy Project, for example, equity considerations were taken off the table due to challenges defining the term and the divisive nature of redistributive equity, which includes the do-no-harm principle that public initiatives should not leave anyone worse off, displace people, cause environmental harm, or destroy important amenities.[104] In their model, Shi and Zhou[157] present four quantitative models that correspond with four types of equity: (1) equity among different traffic mode users; (2) equity among different social groups; (3) equity among different regions; and (4) equity among different generations. Bills and Walker[158] argue that the traditional model of equity analysis has been unable to isolate the impacts to different groups and masks important individual-level outcomes by relying on the mean. Their alternative four-step approach seeks to address these issues by disaggregating data and calculating a distributional comparison (for example, the travel cost reductions for low-income travelers compared to high-income travelers), arguing that this allows transportation decision-makers to determine the degree to which their proposal will lead to (in)equitable outcomes.[158]

Many additional approaches further expand the parameters of transportation appraisal and decision-making. The social return on investment methodology, for example, assigns monetary value to social and environmental impacts.[156] By establishing financial proxies that are not typically valued by traditional measures, this approach is able to calculate a triple bottom line.[156] Hickman and Dean's[153] approach is a participatory multi-criteria analysis – a five-step process that includes (1) multiple locally-oriented policy objectives and criteria; (2) development of criteria indicators; (3) stakeholder prioritization of important criteria and policy objectives; (4) impact assessment by stakeholders of social, environmental, and economic issues; and (5) a final public policy debate. Bešinović,[159] on the other hand, focuses on resilience as key to transportation assessment, arguing that transport systems are increasingly subject to disruptions that affect passengers' mobility. Other approaches include benchmarking systems,[160] the use of census data[161] or federal-level surveys,[162] regional and organizational collaboration,[163] and more integrated and inclusive sets of quality indicators.[155] As discussed in the case study on the now-shuttered Saskatchewan Transportation Corporation (STC), the "Balanced Scorecard," allowed STC to track its performance and progress in meeting a range of social, environmental and economic goals.[27] Together, these approaches demonstrate a shift in the literature toward transportation appraisal that considers more impacts and more voices.

Threats of Privatization and Austerity

Despite these turns to more inclusive transportation policy and appraisal, neoliberalization continues to pose a threat to the realization of accessible, democratic, and equitable transportation systems.[30,35,73,151,156,163] Neoliberal restructuring – including government rollbacks and the regionalization of service delivery – has increased transportation needs in many rural communities and shifted costs

(broadly speaking) onto users.[151, 164, 73] These shortfalls in public service delivery are often being addressed by private solutions. But while the private sector is expected to solve the failures of underfunded and inadequate public systems and mobility may be improved for some, for many, immobility and inequality are exacerbated.[147] Service gaps in rural and small-town areas in Canada are expanding as these areas become increasingly isolated from regionalized services.[164] To address these service gaps, voluntary organizations are stepping in, often developing partnerships with non-local service providers. This suggests that rural and small-town areas are needing to draw on external expertise, networks, and resources.[164] This highlights a neoliberal-capitalist paradox at-work in Canada: namely, that there exists an inequitable duality of transportation initiatives. At the same time that federal and provincial inattention to public and private transportation deficits guarantee rural and remote communities' sustained disenfranchisement from cultural, social, economic, and political resources, capital and opportunities, public- and private-sector transport initiatives and roadbuilding are undertaken to ensure the continued extraction and rural-to-urban flow of capital resources, such as those derived from mining and energy production.[6] While private industries' rights of access are upheld, rural communities' rights to the same are neglected.

Dize,[151] speaking specifically to the transportation challenges faced by older adults and people with disabilities in rural communities in America, observes that many communities are working to meet transportation challenges through volunteer transportation systems, diversifying their funding (particularly by having riders as advocates and presenting statistics to funders about riders), using mobility managers and travel training, and coordinating regional transportation programs across jurisdictions. Rural carshare operations have also emerged as a community response to meet transportation needs in a way that minimizes costs, reduces environmental damage, and improves access to services.[165] The Kootenay Carshare Cooperative, for example, operates in several communities that do not have public transportation options and therefore fills in a transportation gap while being an alternative to private vehicle ownership.[165] Similarly, ride-hailing services such as Uber and Lyft are said by some to be providing a "new automobility," operating in urban, suburban, and even rural neighbourhoods to provide access to the resources and services that automobility offers.[100]

Fairly clear is that these private solutions emerge as a direct result of choices made in transportation policy-making that privilege automobility and private profit at the expense of the public good.[73] Austerity measures and neoliberal policies have made it increasingly necessary to prove the merit of public transportation, often through the more inclusive models described in the above section.[156] Despite the prevalence of private solutions, however, there are critiques that they erode the role of the state, put further pressure on the social economy sector, and are leading to the further de-prioritization of an equitable public transportation system.[35,73,156] A study of Uber's influence in Ghana demonstrated that "uberization" is a form of neoliberal governmentality where the private sector replaces the role of the state and becomes the arbiter of transport choices and citizenship.[35] Private ride-hailing companies are able to write the rules of their industry and, by extension when they are the only transportation service, the transportation industry writ large.[35,73]

Push-backs against neoliberalization are emerging, though, not only through the shifts to public involvement and more equitable transportation described above, but also through returns to public ownership and creativity in the public sector.[29,30,73,166] Sterns et al.[226] describe several different innovative public transportation service models that are meeting transportation gaps in underserved rural areas. Hanna[29] and Farmer[30] posit that the rising return to public ownership points to the shortfalls of private solutions and argue that local public ownership has the potential to be more economically stable, democratic, and equitable. Wilt[73] proposes "consistent funding, public ownership, and common-sense planning by people who actually ride transit" [(p8)] as the path forward for transportation policy.

Where private transportation models tend increasingly to benefit those who are already well-off,[73] equitable public transportation can not only prioritize helping those who are most marginalized, but it can also, as the fundamental infrastructure for accessing other resources and services, counteract greater inequalities of access and inclusion.[33]

8. Mobility and Living with Disabilities; The Social Construction of Disabilities

"*Where can people go when they've reached the last straw and don't know where to turn?*" – Stated during stakeholder conversation

This section aims to address the links between accessible transportation and the lived experiences of people with disabilities living in rural and remote Canadian communities. It begins with a description of "disability" as a social construct tied to an ideology that privileges non-disabled people and shows how inadequacies in accessibility interfere with the realization of capabilities on the part of those constructed as "disabled."

Disability as a Social Construct

The social construction of "disability" is part of a complex ideology that is tied to the rise of industrialization, the development of the science of statistics and the eugenics movement.[167,168] Disability is but one dimension of identity that serves as the basis for social isolation and marginalization,[169] with dominant views of disability tied to ideas of human deficiency that, in turn, have historically served to validate and establish "social hierarchies that justify the denial of legitimacy and certain rights to individuals or groups."[166(p17)] Of the associated attitudinal and environmental barriers, Mike Oliver writes:

> All disabled people experience disability as social restriction whether those restrictions occur as a consequence of inaccessible built environments, questionable notions of intelligence and social competence, the inability of the general population to use sign language, the lack of reading material in Braille or hostile public attitudes to people with non-visible disabilities.[168(p xiv)]

The label of "disabled" continues to be affixed to individuals through dominant narratives perpetuated by social institutions (e.g., education and health care), with ramifications for social policy and discourse including transportation.[170]

Transportation and Persons with Disabilities Living in Rural Canada

Literature focusing on transportation specifically designed to be accessible to persons with disabilities in Canadian rural areas is not common but a few studies show a lack of accessible rural transportation adequate to meet the needs of persons with disabilities.[171] Existing rural public transportation can pose barriers, including reliability and frequency of service, and, for those with developmental disabilities, potential difficulties understanding bus routes and scheduling trips.[128] Transportation, rurality and disability are inextricably bound up with other aspects of people's lives like healthcare, social participation, housing, poverty and food security. For example, a recent report on affordable housing in Clare, Nova Scotia reports the need for strategic planning of integrated services like public transportation, affordable housing stock, grocery stores and medical services:

> "If housing is not well integrated into the community, people with lower incomes often end up living in areas of the community with reduced access to transportation, social support networks, community services, and amenities. Ironically, these are often the same lower income and more

vulnerable populations who would have the most benefits to gain from accessing these 'public goods' in terms of their health and social outcomes."[172(p52–53)]

People with and without disabilities, who cannot afford car ownership or maintenance, or cannot drive, find themselves somewhere on the continuum of transportation disadvantage,[173] with the situation itself considered disabling.[170,171]

Public transportation, whether specifically tailored to riders with disabilities or universally available to anyone, is perpetually under-funded.[174] The Accessible Canada Act, federal legislation enacted in 2018, does not specifically speak to public transportation but federal funding is periodically available to support transportation initiatives.[171] At time of writing, Nova Scotia, Ontario, and Manitoba are the only Canadian provinces with accessibility legislation with each province's legislation being different in terms of scope and stages of development. Studies of Ontario, Manitoba and the Americans with Disabilities Act find that these jurisdictions are generally lax in enforcing regulation.[171, 175,176] Nova Scotia is identified as the most progressive and well supported of the four Atlantic Provinces when it comes to accessible transportation with provincial programs and funding to support community efforts dating back to 2005.[171,174]

While providing transportation options appropriate to the needs of persons with disabilities is considered positive, the use of segregated services, i.e., services only used by persons with disabilities, is less than optimal with advocates calling for them to be replaced with those that serve all people.[174] Where it does exist, rural transportation designed to be accessible to persons with disabilities is costly, takes many forms, and can be problematic for users.[171] Accessible transportation models have been developed and studied, such as Dial-A-Ride in St Stephen, NB and the now-shuttered Saskatchewan Transportation Company (STC).

Transportation, Disability and Other Dimensions of Identities

Literature highlighting links between transportation, disability and disablement often lack an in-depth intersectional analysis, but there is a growing body of literature exploring the influence of dimensions of identity and social locations. For example, research conducted with women with disabilities in Nova Scotia links the availability of accessible transportation options to adequate and affordable housing, employment, and social participation.[177] Another reveals the influence that transportation has on women's decisions and ability to participate in research.[178] Still another links transportation unavailability and women with disabilities in Nova Scotia experiencing domestic violence.[179]

Multiple reports on the experiences of persons with disabilities during COVID-19 describe the compounding issues of the pandemic in the lives of women with disabilities[180] and Canadians who are blind, partially sighted and Deaf-blind.[181] Before COVID-19, Levesque[174] brought attention to the experiences of Acadians with disabilities living in three small New Brunswick communities for whom a lack of accessible transportation has significantly affected their social participation, emotional and physical health, and access to support services.

Transportation is tied to food insecurity, particularly evident during early articulations of the COVID-19 pandemic. People living in remote and rural areas experience high food costs at the best of times but even more so during the pandemic.[182] Many people with disabilities live with low income; many are forced to depend on provincial income assistance, known to be woefully inadequate financially.[177] People with disabilities were among the last to receive pandemic-related income support from the Canadian government, dealing with compounded challenges as they faced increased food costs, reduced transportation options,[180] and additional public health restrictions.[182, 180]

More broadly, research has been done to improve the usability of accessible transit systems for users,[183, 171] with some emphasis on technology including the adoption of global positioning system (GPS) software useful to mobile phone users,[183] and applications specifically designed to assist people who are blind and visually impaired.[184] Also of interest is technology aimed at supporting persons with cognitive challenges such as those experienced by people with brain injury.[184] Safety concerns surrounding passenger securement and wheelchair tie-downs have also been explored.[185] An identified gap in the literature is on the orientation needs and solutions for people living with dementia who also engage in independent travel methods that include public transportation.[184]

Advancing age is positively correlated with the acquisition of new, additional and worsening illness and disabilities,[186, 173] with increased concern for road safety associated with the growing population of aging drivers.[187] The consequences of losing one's ability to drive can be dire in terms of accessing health care, obtaining essential supplies and social participation.[186, 187, 188, 171] The demographics of rural communities in the Atlantic Provinces, for example, include a larger and faster growing elderly population compared to other regions in Canada.[189] Aging-at-home policies and the growing demographic of elderly people living in rural areas creates challenges for service delivery[171] and it is likely to influence an increase in their transportation disadvantage.

Transportation as an Essential Access-related Support

The negative impacts of living with disabilities in a rural area, without access to transportation, can be significant to the point of making it necessary to move to where accessible transportation is available.[190] For example, some persons with disabilities can find themselves unable to leave their homes for an extended period of time.[174] Using active transportation options like walking or cycling—promoted in environmental rhetoric[170]—to obtain supplies is possible for some persons with disabilities but often overlooked in environmental messaging. For others, however, non-motorized mobility is impossible.[81, 174, 170] Where accessible transportation options exist, procedural requirements, such as advance booking and a reliance on volunteer drivers, can pose challenges to users,[171] with effects that include making spontaneous decisions and last-minute trips for supplies, health care or social events impossible.[174]

Women without disabilities living in rural areas have been shown to experience social exclusion because of transportation disadvantage.[74] This can impact women's mental health.[191] Women living with low income experience particular hardship with regard to transportation, even in households with a car.[74] Links have been drawn between women living in rural Canada experiencing transportation disadvantage and risk of domestic violence.[191, 188] A 2020 report on women with disabilities and domestic violence in Nova Scotia highlights the barriers women with disabilities encounter in communities with no or limited access to independent transportation and long distances to travel in order to find transition houses physically able to shelter them.[179]

While youth with disabilities generally have school buses to assure they can safely get an education, those seeking other activities or older than high school may find their lives severely constrained, if they are also transport disadvantaged.[74, 188] These youth may find themselves confined to the extreme local activity space, with a restricted arena for socialization, recreation, and extracurricular activities. They are likely to experience social exclusion[213] and more likely to be shut out of social networks than their peers.[222] Those older than high school may also find their dreams of further education or work for naught.[74(p75)]

Links have been made between public transportation and the availability of personal care attendants or support workers for persons with disabilities. Denmark[173] suggests that investment in accessible public transportation could eliminate the need for some folks to live in institutions and reduce the need for

personal support workers for others. Public transportation can also impact the ability of persons with disabilities unable to afford such services. Not all provinces cover these types of services in full or in part.[174] From the perspective of personal care attendants and support workers themselves, many of whom work for low wages, the lack of public transportation makes it impossible to travel to people with disabilities living in rural areas.

9. Linking Accessibility, Safety and Violence

"Along the Highway of Tears, violence defines boundaries of inclusion and exclusion, personhood and exception, colonizer and colonized" [139(p307)]

Experiences of vulnerability due to the absence (or presence) of public transportation in rural and remote locations are multifaceted. Generally, people are affected disproportionately, and many socio-economic factors intersect together with structural and service barriers. These social factors exacerbate experiences of vulnerability, risk and violence. In this way, mobility and transportation contribute to people's vulnerability in rural and remote locations. Vulnerabilities create risks, which is evident in the examination of interpersonal violence (IPV) or missing and murdered Indigenous women and girls (MMIWG). While these issues make vulnerabilities more obvious, the context of historical patterns created by racism, colonization and citizenship demonstrates the systems of power that have created these conditions, thus we have also provided a case study example of how these socio-economic and historical issues affect people living in remote locations. The case, however, cannot be explored through a one-size-fits-all approach and therefore, we provide three key examples to introduce the complexity of these issues from the literature.

Urban and Rural Divide: Experiences of Older Adults in Rural Areas

Literature around the globe highlights how transportation shapes the lifestyle, physical well-being, and quality of life of older adults in rural areas. Due to a lack of transportation availability, older persons living in rural and remote places have more unmet travel demands and a higher number of trips missed than their counterparts in urban locations.[94,130,131] Additionally, older adults who do not drive have to struggle with issues of public transportation including accessibility, affordability, frequency, availability, efficiency, appropriateness, consistency, connectivity, and convenience.[94] Older adults who have mobility problems are further excluded by lack of bus shelters and benches, unwalkable sidewalks, and inaccessible public transit. Shirgoakar et al.[93] suggest a focus on building transportation infrastructure and networks in rural areas that meet the need for stable and reliable transportation and enable older rural adults to go to regular medical appointments, critical healthcare services, social activities and satisfy daily needs, e.g., around food. Additionally, they suggest travelling options in rural areas include community-based, low-cost travel in order to respond to the rural disadvantage in transportation availability and barriers of access for rural older adults. Reduced mobility corresponds to lower household incomes and gender roles as women are less likely to travel for social and daily amenities or services such as grocery shopping. Factors that influence rural older adults' ability to travel to meet their needs are health status, financial status, disability and non-driving status.[14] They note that there are services such as paratransit and alternate options in urban areas which can accommodate "a wheelchair and other walking aids'' that are not available in rural places.[93] Service availability, social requirements and (dis)abilities are all key considerations for policy makers in bridging the rural-urban divide in transportation. New solutions that involve them as subjects and participants are required.

Transportation and Migrant Workers

Although transportation policies and systems exacerbate the vulnerability of migrants, a paucity of literature has been dedicated to the subject. One study by Reid-Musson[194] looked at mobilities affected by systemic factors/inequalities. They note that the mobilities of migrant workers are defined and heavily tied to their workplaces. They state that for migrant workers, "Transportation exclusions are not incidental – they buttress existing race, citizenship, and class power hierarchies and systems of labour exploitation."[194(p321)] In Canada, extant evidence on abuses migrant workers may face include the possibility of employers overcharging for transportation since in many cases migrants are structurally dependent on employers by the very nature of their work contracts.[193] For migrant workers, automobility and ownership are logistically and financially prohibitive, so bicycles are frequently opted for as a mode of transportation, despite the auto-hegemonic rural locations wherein they work and where social citizenship depends on access to a vehicle. Preibisch[192] underlines the fact that many migrant farm workers live in rural locations, meaning they must confront the politically-produced reality of rural Canada where "transportation is scarce and expensive."[(p 49)] In many ways, structures of belonging and of who has the power within a territory are perpetuated through the intersection of immigration status and rural location; they define who is afforded rights, safety and access to services. These rights mark migrants as subordinate. As Reid-Musson[194] has argued, for temporary workers, "(im)mobilities are implicated in making citizens and non-citizens."[(p309)] That the place in which this occurs is rural – and geographically and socially excluded – does not go unnoticed. Experience of death or accidents by migrant workers who rely on bikes is common.[194] While the literature is sparse, it is known that class, migration status and race are important determinants of an integrated transportation system.

Indigenous Women

The experience of mobility is not equal and cannot be generalized across every group or individual and policy or research that takes a homogeneous position fails to examine the way inequalities are structured through transportation or the lack of it. The case of the Highway of Tears is an example (see case study). Considerations for how we respond to *The Calls to Action* emanating from the Truth and Reconciliation Commission (2015), which reiterated that safe, accessible and dignified resource allocations are remedies to past injustice are not without emphasis in exploring this implication. They were further iterated by the National Inquiry into MMIWG:

> "Families and survivors told the National Inquiry about the importance of safe transportation in preventing the deaths and disappearance of Indigenous women, girls, and 2Spirit people. As a result, Call for Justice 4.8 requires all governments to provide safe and affordable transportation for Indigenous women, girls and 2Spirit people, especially in remote areas."[195]

The Highway of Tears was frequently used for hitchhiking due to its remoteness, and it provided an essential link to connect underserviced remote communities with sporadic, expensive and uneven bus services until recently.[139] Up until 2021,[195] this area in Northern British Columbia — like the more-populated Regional Municipality of Wood Buffalo, Alberta — was highly vulnerable due to limited cell and transportation networks.[196] Noted as having "few rest areas, shelters or emergency services for hitchhikers and other travelers to access between communities"[139(p302)] and social conditions marked by "experiences of poverty, unemployment and inadequate education opportunities leading to social marginalization and increased risk of violence,"[139(p304)] the Highway of Tears was constructed similar to other remote locations in the north. That such markers are determined and reinforced by a colonial history that has also determined and in certain periods lawfully restricted Indigenous mobility cannot be overlooked. For example, the Indian Act of 1876 controlled movement of Indigenous peoples off

reserve. Colonial history has constructed Indigenous women as "willing victims" who deserve the violence they face because of their "lifestyle choices."[197]

Case Study: Safety Concerns in Remote Communities

Mona and Emily were two young, Indigenous women from a northern Cree community. They both fought drug addictions and had recently started regular methadone treatments. Their hopes were that the treatments would help them end their addictions. The problem was that the methadone had to be given to them daily by a licensed medical provider and the nearest place for them to access it was in a town 40 km from their community. Determined to end their addictions, but without access to transportation, Mona and Emily began to hitchhike daily to town.

Their home community did have a van it used for transporting local people to town, for example, to appointments, however because of the social stigmatization of drug users, Mona and Emily said they were not allowed to get rides using this service. At one point there had also been a bus along the stretch of highway they had to travel, but it too had been shut down by a provincial government. Without clear options, hitchhiking down the remote highway daily became their routine.

According to Morton[139] the way transportation is constructed ,with automobility being the norm, makes hitchhiking a *contentious mobility* that is stigmatized or treated as undesirable. As hitchhiking becomes undesirable, so too does the deserted highway or the space in which it happens. "Women without cars hitchhike as a means to access the privileged sphere of automobility. Until the systemic issues of access to mobility and services are eased, women will continue to assume risk."[201(p265)] This is particularly a reality for Indigenous women in remote areas of Canada "Indigenous women frequently move along the highway in order to access social services including women's shelters, employment services, health services and education."[139(p305)]

Clearly Mona and Emily had multiple experiences of vulnerability that put their safety at risk; it made the physical stakes of their mobility high, including a potential for injury, death or the possibility that they could become statistics as missing Indigenous women.[201] Their situation as drug users, as young Indigenous women and without a vehicle further excluded them socially and disenfranchised them from decision-making.[202] Mona and Emily knew they were stigmatized. They understood from life's experiences that they had been constructed as "willing victims" who deserved violence because of their "lifestyle choices,"[197] but the colonial and racist attitudes and social inequalities that fueled the violence against them and other Indigenous women remained absent from the story.[139]

The ways in which safety and security connect to markers of identity such as gender, race, class, age and geography all contribute to the vulnerability of the missing and murdered women and girls in remote locations.[198] The situation for Mona and Emily was similar to that of other women and girls along the Highway of Tears—the remote stretch of highway in Northern British Columbia where dozens of women, mainly Indigenous, went missing or were found dead. The lack of services along that remote stretch of highway is well documented and so too are the many lives lost by people who tried to hitchhike along it. After over a decade of campaigns, studies and a symposium held by six BC first nation groups (2013) and the Report of the National Inquiry into Missing and Murdered Indigenous Women report recommendations (2012), and the closure of Greyhound Canada, a bus service was launched by the BC government in 2021.[203]

For Emily and Mona it was too little, too late.

This case study was developed and adapted from the literature and a personal experience by the researcher (Hanson) after picking up Indigenous hitchhikers on a remote highway.

Tallman[198] analyzed the varying approaches to security and insecurity in the case of the Highway of Tears. In doing so, they posited that by aiming to push past traditional and realist notions of security that focus merely on the state and its territory, the structural violence and experiences of the citizens

within that space are undermined. She frames the Highway of Tears as a "site of security" and reveals a tension that exists between traditional conceptions of security (police and government) and critical feminist and Indigenous approaches to security.[198(p7)] The former responds to security and safety issues by leveraging quantifiable resources and results such as investigations, resources, funding and policy while the latter values security and response that is well-rounded, decolonial and community-based.[198]

Tallman's analysis emphasizes the importance of transportation initiatives meaningfully attending to the needs and wants of communities when responding to issues of transportation, safety, protection and MMIW. This analysis offers insights into the steps that can be taken to implement culturally informed policies and initiatives that provide safe, accessible and sustainable transportation options.

Intimate Partner Violence in Rural and Northern Communities

Rural areas present "particular challenges for those experiencing control through entrapment," and "the simple scarcity of public transport, the distances between places, and the lengthy response times for emergency services may prevent victims from fleeing."[199(p566)] This condition is exacerbated for women in Northern communities.[200] The deficit of resources is compounded by a lack of integrated services such as childcare, victims' services, alternatives to RCMP, transportation, jobs, housing, shelters, and IPV information.[200(p4072)] The fact that most of the victims of IPV are women presents gender as a "key axis of inequality in terms of capacity and resources of mobility."[199(p569)] Feller writes how the lack of integrated transportation infrastructure and services additionally puts service workers in positions of vulnerability as they will provide rides to women fleeing IPV to prevent these women from travelling in unsafe conditions or in the dark.[200] Unless the structures that create the inequalities are dealt with, the barriers and struggles faced daily by individuals and service providers will not cease.

10. Main Public Health Impacts of Transport

"When people have to fly out of their communities to access services such as healthcare, you "lose your family member for a while." - Comment during the stakeholder conversation

Our review of the Canadian scholarly and policy literature found that transportation and mobility's structuring impacts on health-seeking, healthcare service provision, and health outcomes are woefully under-investigated. The effect of these research oversights has been that the direct, determinative, and causal linkages between rural and remote communities' mobility and health indicators, and health inequities and disparities across the rural-urban divide especially, remain under-enumerated and largely out of sight. The impacts of deficient or absent transportation and mobility exert seismic impacts on health, which are poorly factored into national, provincial, and community-specific research, and therefore represent critical missed opportunities for rural and remote health learning *and* reforms.

The literature confirms that Canada has failed to adequately recognize the degree to which mobility and transportation rights and access are foundational to achieving health equity. Within public health, this conceptual approach requires "valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities … [and] injustices, and the elimination of health and health care disparities."[204(p72)] Canada has also failed to adequately account for the medical aftermaths, and time and energy lost, due to transportation and mobility barriers to health services. Indeed, inadequate and absent transportation significantly constrain rural and remote persons' access to essential-primary,

advanced-specialist, and urgent-emergency care in a timely and effective manner. Where Kamboj, Jackson and Babenko-Mould[124] describe how the lack of reliable transportation meant that patients had to miss or be late for treatments or felt weaker after treatment because they could not go home, Del Rio et al.[205] confirm that "missing appointments [is] a major problem"[(p12)] particularly because of the travel distance between rural and remote patients and peri-urban and urban healthcare services. COVID-19 especially has served to highlight the health and medical precarities endured by rural and remote communities; the Ontario HIV Treatment Network explicitly recognizes the complications for health posed by difficulties getting to testing centres, scarcity of health providers, long travel distances to access services, and lessened ability to participate in face-to-face support groups [and] medical care.[206]

The end-effects of insufficient or lacking transportation include sometimes-dramatically increased rates of morbidity and mortality. Hamadani[207] discusses how the comparatively higher death rate in patients transferred from Northern Quebec versus within metropolitan Montreal reflects the challenges posed by delayed access to transport and advanced care; specifically, northern Quebec patients experience more complications than locally transported patients. Hamadani concludes that the combination of severe injuries, longer travel times, and poorer access to early definitive care leads to more complex injuries, higher rates of complications, and longer hospitalizations.[207]

Importantly, even efforts to reduce the geographic distances between patients and service can produce complications for health and wellbeing. For instance, Lawford et al.[208] confirm how First Nations women are isolated, marginalized, and made more vulnerable when they are evacuated to Winnipeg for maternity care because they lack community support and information. Despite notable efforts to use telehealth and e-health as means to reduce the distance between patients and care, commentators note how, as standalone interventions, these are insufficient to meet and reduce the larger share of challenges giving rise to rural-urban health inequalities.[209] When health-related transportation needs are unmet, people and community are left to devise homegrown solutions, some of which entail radical life-changes. For instance, Hansen et al.[210] note how older persons "discussed the need to relocate" closer to medical services.

Delays in service access not only yield unmet health needs and worsened or poor health outcomes; they also contribute to the burden of social suffering experienced by patients estranged from necessary care.[125,208] Here, we qualify social suffering as taking phenomenological, psychosocial, and physical forms all, and draw attention to the ways that it compounds and complicates patients' experiences of medical suffering and trauma. For instance, Kamboj, Jackson and Babenko[124] found that unreliable transportation had negative impacts on participants' health including feelings of sadness, anger, frustration, and anxiousness.

Patients' distance or exclusion from medical services correlates with their experiences of social isolation and exclusion: altogether, these then generate and exacerbate individuals' and communal experiences of social suffering. Lutz[211] remarks on the ways that rural geography, automobile-centricity/reliance, shrinking volunteer pools, and regionalization of services all influence rural seniors' mobility and impact their risk of social exclusion, isolation, depression and poorer health outcomes. Hansen et al.[210] reconfirm the same, noting how the "lack of alternate transportation modes in rural areas further disadvantages populations and places where residents are at greater risk of social isolation and declining health"[(p5)] (see also [15,212,205]). Such findings demonstrate how the absence of public transport and private-personal vehicular travel impacts mental health and socialization, with the loss of mobility and independence for older persons especially being characterized as "life-altering" or even "traumatic."[210] These gaps produce diverse and radiative impacts. Howard et al.[214] discuss the ways that transportation difficulties and costs not only take a toll on patients but also on their family members.

It merits important note that health-specific transport insufficiencies and barriers in rural and remote areas, and the innumerable unwanted outcomes they produce, are over-distributed among and endured by Canada's visible and racial minorities. Rural and remote persons' experience is rendered additionally precarious if they also belong to a visible or minoritized group. For instance, King and Dabelko-Schoeny[14] address the challenges posed by transportation difficulties for older LGBTQ+ adults, for whom mobility constraints exacerbate their experiences of isolation and a lack of connection and sense of belonging.

On the basis of these findings, we theorize mobility and transportation as primary rather than incidental structural determinants of health. Structural determinants include "the governing process[es], economic, and social policies"[215(np)] that determine the distribution of resources and advantages along lines of not only identity and status categories, but residency as well. By shaping the nature and delivery of health services, mobility and transportation feature prominently as a contributor to health inequities among individuals, neighbourhoods, and locales.[215] Thus, rural and remote transportation and mobility constraints are generative of structural disadvantage, or disadvantages experienced by individuals, groups, and communities as a result of the social relations of inequality and the resultant workings of society. These produce vulnerability, a social positionality that can cause major difficulties and threats to self, family, and community [216] because of deficient capital resources but also, we argue, the lack of mobility rights.

Ultimately, the research precedent confirms rural-urban health disparities as unnatural and politically-induced: transportation deficits and their corresponding impacts on mobility are the result of ideological political choices.[32] Specifically, these include neoliberal austerity measures that take form in i) public transportation reductions and route closures, ii) the closure of peripheral and satellite hospitals and clinics, and iii) the centralization and over-concentration of many essential and specialist medical services in urban centers. Considered together, the health impacts and outcomes of closures such as the STC, for instance, are numerous and felt on "various levels, including individual, family, community, and macro levels," a phenomenon which Alhassan et al. refer to as a "'web of dispossession."[15]

By shaping the practices, quality, and outcomes associated with personal and collective life and health, and in linking rural and remote Canadians to healthcare resources and opportunities beyond the communities in which they live, transport is *critical to well-being*. Indeed, Glazener et al.[217] speak of the interdependence between "pathways linking transportation to health" and forms of "social connectivity, independence, physical activity, and access."

KNOWLEDGE MOBILIZATION

Here Today, Gone Tomorrow originally aimed to produce four key knowledge outputs that facilitate engagement with a variety of stakeholder audiences. The outputs include a research report, fact sheets; a webinar; and community radio interviews. Our invitations to participate in a rural webinar and as guest panelists at a conference at McGill University indicate that there may be a much wider circle of interest in our work than originally anticipated. Additionally we have developed a proposal to participate in the Nordic Geographers Meeting in Finland. Translation of our materials into French and English makes them available to a wider Canadian audience. Our outputs will be disseminated online, through social media, on community radio and in print both by the research team, and with the assistance of the Canadian Research Institute for the Advancement of Women (CRIAW-ICREF) and the conversation stakeholder group members. CRIAW-ICREF provides an excellent platform for supporting our knowledge mobilization efforts because of its well-known national network of scholars and

community-based organizations interested in intersectionality[220] as an approach to public services and their expertise in producing accessible knowledge outputs.

The findings of the knowledge synthesis project will encourage researchers (within academia, community, government, and social organizations) to consider mobility, public transportation and vulnerable groups as important intersections for transportation development in rural and remote areas of Canada. Finally, and critically, our approach to this knowledge synthesis grant (including the stakeholder conversations and use of grey literature) allowed us to recognize, critically assess, and integrate knowledge from rural, Indigenous, academic and international development sources[221] and model an inclusive and iterative approach to the synthesis of knowledge from disparate worldviews and methodologies.[1] The use of grey literature, for example, from international development or national Indigenous media, provided an opportunity to recognize non-Western and non-academic forms of knowledge which elevated perspectives that might otherwise not be considered. Representatives from interested groups—participants in the stakeholder conversation at the start of the project and the webinar scheduled for winter of 2022—will further seed the formation of community-university relationships and importantly, potential networks for integrating issues of vulnerability and mobility in rural and remote locations into future research, public policy, and community engagement.

Our timeline for knowledge mobilization generally follows the completion of the final report and continues beyond the project end in spring of 2022, for example, with conferences, papers and the dissemination of the report and fact sheets through CRIAW-ICREF, stakeholder groups and other networks developed through the KSG. Finally, community radio offers free, widely shared regional opportunities for project outreach.

 The final stakeholder conversations--and the webinar in the winter of 2022 will bring back the 10 individuals who attended a stakeholder conversation at the start of the project. Finally, we anticipate having interest from federal and provincial government departments and agencies including: Indigenous and Northern Affairs; Women and Gender Equality Canada; Heritage Canada; Environment Canada; provincial departments with mandates for public service, rural development, Employment and Social Development, Canada Post, and social services.

RECOMMENDATIONS

"Transportation policy needs to meet some minimum standards of accessibility and offer travel opportunity to the most marginalized if it is to be considered just"[105(p181)]

Future Directions for Research and Policy

Most academic research and policy evaluations on transportation disadvantage are focused solely on economic outcomes, which completely overlook the other spheres of life that transportation impacts. Many groups are often missed in the extant literature, including community college students, seasonal farm workers, non-driving mothers, etc. There is much more that needs to be done to analyze the experience of transport-related social exclusion across different contexts and localities. In addition, current policies tend to be location-based, and treat transportation users as a homogenous group, failing to account for differences (e.g., age, gender, ability, etc.) in addressing mobility needs. Problematically, this misrepresents exclusion as binary—either excluded or not—completely overlooking the gradients of inequality as intersectional identities and differing extents of transport disadvantage. Without addressing these complex differences, long-term, sustainable solutions remain elusive. Policies,

studies and evaluations must therefore develop more comprehensive understandings of the differential impacts of transport disadvantage.

Transportation (or lack thereof) has multiple consequences for individuals, including quality of life, life chances, capabilities, choices, citizenship, and autonomy. It is important to note that the interaction that exists between individual/group factors (e.g., age, disability, income, spatial location, etc.) and macro-scale structural, political, economic, and cultural factors (e.g., transport policy, transportation infrastructure, migration, etc.), is so multifaceted that individual and structural factors are inextricably connected. Thus, equitable transportation can only be achieved through an interconnected approach that involves coordination in a variety of sectors, including housing, health, education, welfare, policy planning, engineering, etc., with a focus of social exclusion in the development and implementation of policy and programs.

This review has shown the need for more intersectional, equity-focused and socially-oriented research on rural and remote transportation. The under-resourcing and lack of research on transport poverty, transport disadvantage, and transport-based social exclusion in a neoliberal, austerity context results in the responsibility of inclusion being placed on the excluded. The literature agrees that exclusion is structural, societal, and cultural, and that it will take a multi-disciplinary effort to address these needs. Even so, there is no single solution to addressing transport-related exclusion. Transportation planning must be coordinated across different sectors, localities, and across the country. Recognition for how transportation can potentially further social cohesion, capabilities, and autonomy is required to address the many issues outlined here. This includes policy making and infrastructure decisions that also centre relationships between places and people. Currently the literature reveals that people who are not urban-dwelling and car-owning largely suffer from automobile-centric, economic-based transportation policies and infrastructure.

Following from mobility justice initiatives which call for "recognition, participation, deliberation, and procedural fairness to be up for discussion, adjustment, and repair"[6(28)], our research similarly seeks an expansion of federal funding for progressive community and place-focused research that uses innovative, cooperative, action-oriented *and* decolonizing methodologies (see[218(p3),96,108,219(p93),101]) to study uneven mobility and transportations' diverse impacts on specific social groups and collectives. Such work should be explicitly aimed at supporting practitioners' efforts to "develop a more holistic sense of the potential environmental justice ramifications of a proposed policy, program, or project [and] evaluate the inevitable tradeoffs that arise when a transportation investment is made"[218(p9)].

We also call for recognition that **vulnerable places make vulnerable people** (and vice versa). "Remoteness" is a socially constructed state. No place is naturally remote—it is the fault of infrastructure and lack of political prioritization to invest in connecting "remote" places and people. Inaction regarding the provision of public transportation constitutes a political choice that individualizes, routinizes and naturalizes vulnerability and deviates from prior government commitments, such as human rights (the right to movement); equal treatment for citizens no matter their place of residence; rural and remote social development; and Indigenous wellbeing (commitments on MMIWG); along with Calls for Action in the Truth and Reconciliation report.[141] The Calls reiterated that safe, accessible and dignified resource allocations are remedies to past injustice. A lack of agency or voice from people representing rural and remote places was all-too-commonplace in the hundreds of sources reviewed for this study. Considering this, future research efforts must make a larger effort to involve local populations and local places in research that is community-led and engaged, and when possible, participatory.

1. Elevate the voices and agency of rural and remote peoples, particularly the marginalized. Utilize participatory and interdisciplinary methodologies in community-based research to reflect the heterogeneous needs of different places and individual social positions.
2. Examine transportation needs on a local scale to identify the particular transport needs; identify which local populations and sources experience transportation disadvantage. take into account differential impacts.
3. Employ decolonizing methodologies and forms of praxis as part of research on minoritized, racialized, and Indigenous communities' mobility and transportation experiences and needs.
4. Support interdisciplinary studies and research that theorizes accessibility and mobility at a myriad of levels (local, regional, national) and mobilize the findings of transportation research for use in transportation policy and decision making.

A. Policy Recommendations

Understanding Community Needs

1. Include the community in policy, planning, evaluation, and monitoring of public transportation to ensure that transportation policy addresses the actual concerns and needs of the community. This inclusion must also use processes and include voices of people normally disenfranchised by a lack of transportation and from the decision-making process. For example, people with disabilities must be included.
2. Avoid approaching transportation needs as homogenous; take into account differential impacts across gender, age, ability, income, and migration background in addressing mobility needs;
3. Establish platforms and/or citizen advisory boards so that individuals and communities can voice concerns and express their transportation needs.
4. Avoid superficial solutions that benefit small groups of people and potentially pit communities against each other, such as private transportation run by religious groups or services that are only accessible for well-to-do riders.

Transportation Provision, Mobility, and Justice

1. Design physically accessible public transportation infrastructures that support people with physical disabilities;
2. Implement transportation policies that recognize the complexity of disabilities and support people with physical and cognitive disabilities;
3. Improve the level of service, education, and support for older adults, people with cognitive disabilities, and people with cultural or language barriers;
4. Explore the benefits afforded by transit-oriented development (TOD) and demand-responsive transport (DRT) solutions for persons and communities disenfranchised from mobility and transportation services and rights. Facilitate inter-city, inter-agency coordination in public transportation provision;
5. Coordinate national-level transportation with organizations at local levels; and
6. Focus development of rural public transportation with consistent service to education, recreation, and social activities; develop public transportation routes and services that provide access to other public social goods.

Creating and Changing Transportation Infrastructure

1. Recognize rural and remote transportation as essential infrastructure necessary to realize universal basic services and individual capabilities and commit to developing public transportation that links people and places, in particular lower-income people and non-urban communities;
2. Support the development of local, inter-city, and inter-provincial networks as part of a national system of affordable, accessible, safe, reliable, rapid, and cost-effective multimodal transportation in order to support individual autonomy over time and choices in work, education, socializing, and economic activity;
3. Centre non-automobile options and public transportation in transportation policy and infrastructure;
4. Promote public bus services and challenge existing stigmas that discourage people from utilizing public bus services;
5. Integrate services including cell service, road maintenance, service centres, and emergency services over routes connecting remote and rural areas to each other and urban centres;
6. Provide broad public transportation subsidies, including bike- and ride-sharing services, to decrease cost barriers for all people, especially for low-income people and communities;
7. Develop a national, public system of transport that is affordable, accessible, reliable, and safe;
8. Implement transportation infrastructures that use comprehensive approaches to monitoring and evaluation that go beyond economic indicators to centre social and environmental impacts of transportation policy;
9. Pursue long term, sustainable solutions that recognize the complexity and diversity of transportation needs.

Legislative and Other Governmental Considerations

1. Urge provincial governments to support and develop Canadian legislation on transportation
2. Commit nationally to Canada's stance internationally on mobility and transportation.
3. Expand federal funding for community-based research that uses innovative, co-operative, action-oriented and decolonizing methodologies to study uneven mobility and transportations' diverse impacts on specific social groups and collectives.
4. Reject austerity approaches to rural and remote public transportation funding in recognition of the critical role played by transportation and mobility infrastructures.

The literature analyzed for this study suggested several policy and research-related changes. In addition, because of existing gaps in the research, the study also emphasizes future areas of research.

B. Future Research

1. The transportation needs of rural and remote populations that have been substantially missed in research so far, including youth, the elderly, the disabled, the unemployed, migrant workers, and those with uncertain or low incomes;
2. The social, cultural, economic, and political meanings people and collectives attribute to, or experience within, areas of mobility and transportation;
3. Transportation in a rural and remote contexts; generate empirical data which confirms and/or contests the specific ways that transport infrastructures support rural communities, or preclude their ability to thrive;
4. Explore how gender, race, class, geographical location etc. and mobilities intersect and shape spatial mobility, transportation, and transport justice

5. In-depth studies on transportation infrastructures, services, and opportunities in Indigenous (remote and rural) contexts;
6. The role of transportation in engendering active citizenship and the "right to the city" and good rural places;
7. How changes in transportation policy can maximize social benefits for vulnerable populations and places; Explore further research on implications of privatization of transportation, with a focus on safety, affordability, accessibility, and quality;
8. The role played by emerging technologies in achieving mobility and transport reforms and justice;
9. Studies of links between violence, safety and intersectionality in the context of rural/remote transportation; and
10. The structuring impacts of mobility and transportation opportunities and constraints on rural and remote communities, such as they affect the accessibility, provision, and distribution of healthcare systems and services, and yield disparities and inequalities in healthcare outcomes.

Bibliography

1. Brunton G, Oliver S, Thomas J. Innovations in framework synthesis as a systematic review method. *Res Synth Method* 2020; 11: 316–330.
2. Cohen A. The Challenges of intersectionality in the lives of older adults living in rural areas with limited financial resources. *Gerontol Geriatr Med* 2021; 7: 1–9.
3. Levac L, L. M, Stienstra D, Baike G, Hanson C, Mucina D. *Learning across Indigenous and western knowledge systems and intersectionality: reconciling social science research approaches*. KS Report. 2018. https://www.criaw-icref.ca/publications/learning-across-indigenous-and-western-knowledge-systems-and-intersectionality/
4. Canadian Research Institute for the Advancement of Women (CRIAW-ICREF). *Feminist Intersectionality Primer*. 2021. https://www.criaw-icref.ca/publications/feminist-intersectionality-primer/
5. Hanson C, Fletcher AJ. Beyond the trinity of gender, race, and class: Further exploring intersectionality in adult education. *Eur J Res Educ Learn Adults* 2021; 12: 135–148.
6. Sheller M. Theorising mobility justice. *Tempo Soc* 2018; 30: 17–34.
7. Acker-Verney JM. Embedding intersectionality and reflexivity in research: doing accessible and inclusive research with persons with disabilities. *Third World Themat A TWQ J* 2016; 1: 411–424.
8. Yuval-Davis N. Situated intersectionality and social inequality. *Raisons Polit* 2015; 58: 91–100.
9. Hailemariam M, Felton JW, Key K, et al. Intersectionality, special populations, needs and suggestions: The Flint Women's study. *Int J Equity Health* 2020; 19: 1–12.
10. Hamilton K, Jenkins L. A gender audit for public transport: A new policy tool in the tackling of social exclusion. *Urban Stud* 2000; 37: 1793–1800.
11. Cronin D. Women and Austerity. *Irish Marx Rev* 2012; 1: 30–33.
12. Fraser N. Crisis of care? on the social-reproductive contradictions of contemporary capitalism. In: Bhattacharya T. (ed) *Social reproduction theory: Remapping class, recentering oppression*. London: Pluto Press, 2017, pp. 21–36.
13. Bhattacharya T. Introduction: Mapping social reproduction theory. In: Bhattacharya T (ed) *Social reproduction theory: Remapping class, recentering oppression*. London: Pluto Press, 2017, pp. 1–20.
14. King S, Dabelko-Schoeny H. 'Quite frankly, I have doubts about remaining': Aging-in-place and health care access for rural midlife and older lesbian, gay, and bisexual individuals. *J LGBT Health Res* 2009; 5: 10–21.
15. Alhassan JAK, Abonyi S, Neudorf C, et al. "It feels like somebody cut my legs off": Austerity, transportation and the 'web of dispossession' in Saskatchewan, Canada. *Soc Sci Med*; 282. Epub ahead of print 2021. DOI: 10.1016/j.socscimed.2021.114147.
16. Fahy K. *Transport Policy Reform and Rural Communities: A case Study of Gaspe*. Concordia University.
17. Sherkulovich SS. Infrastructure and economic growth. *Int J Econ Commer Res* 2015; 5: 9–16. Sherkulovich SS. Infrastructure and economic growth. *Int J Econ Commer Res* 2015; 5: 9–16.
18. Hirshman AO. *The strategy of economic development*. New Haven: Yale University Press, 1958.
19. Nijkamp P. Infrastructure and regional development: A multidimensional policy analysis. *Empir Econ* 1986; 11: 1–21.
20. Keeling DJ. Transportation geography - New regional mobilities. *Prog Hum Geogr* 2008; 32: 275–283.
21. King LJ. *Central Place Theory*. 2020.
22. Smith AS. Regional economic systems: Linking geographical models and socioeconomic problems. In: Smith AS (ed) *Regional analysis, volume I: Economic systems.* Cambridge: Academic Press, 1976, pp. 3–63.
23. Olfert MR, Stabler JC. Community Level Multipliers for Rural Development Initiatives. *Growth Change* 1994; 25: 467–486.
24. Shove E, Trentman F. *Infrastructures in practice: The dynamics of demand in networked societies.* London: Routledge, 2019.
25. Shove E, Pantzar M, Watson M. *The dynamics of social practice: Everyday life and how it changes.* London: Sage Publications, 2012.
26. Hanson C, Jaffe J. Cutting the lifeline: Shuttering the Saskatchewan Transportation Company. In: Jaffe J, Elliott PW, Sellers C (eds) *Divided: Populism, polarization and politics in the new Saskatchewan*. Halifax: Fernwood Publishing, 2021.
27. Saskatchewan Transportation Company. *Saskatchewan Transportation Company Annual Report 2016-2017*. 2017.
28. Harvey D. *A brief history of Neoliberalism*. Oxford: Oxford University Press, 2005.
29. Hanna TM. Reclaiming democratic control: The role of public ownership in resisting corporate domination. *J World-Systems Res* 2019; 25: 42–48.

30. Farmer S. *Chicago's public transportation system - The contradictions of neoliberalism in the global city*. Binghamton University, 2009.

31. Gouliquer L and Poulin C. *Mobility boundaries between home, community and beyond: Experiences of exceptionally old adults living in eastern Canada*. Qualitative Sociology Review 2015; XI(3):124–150. Available from: http://p//www.qualitativesociologyreview.org/ENG/archive_eng.php.

32. Alhassan JAK, Smith C, Hanson L. *Politics, transportation, and the people's health: A socio-political autopsy of the demise of a 70-year-old bus company*. Critical Public Health 2021. Available from: https://doi.org/10.1080/09581596.2021.1905152.

33. Jaffe J, Gertler M. Privatizing rural public transportation: Structural adjustment Saskatchewan (Party) style. Portland: Annual Meetings of the Rural Sociological Society, 2018.

34. Opara, M. *Public private partnerships in Alberta's transportation infrastructure: A study of the evolution of the institutional environment*. Athabasca University, 2014.

35. Kaye-Essien CW. 'Uberization' as neoliberal governmentality: A global south perspective. *J Asian Afr Stud* 2020; 55: 716–732.

36. Wilt J. *Do androids dream of electric cars? Public transit in the age of Google, Uber, and Elon Musk.* Between the Lines, 2020.

37. Warner M, Hefetz A. Applying market solutions to public services: An assessment of efficiency, equity, and voice. *Urban Aff Rev* 2002; 38: 70–89.

38. Mackenzie King WL. June 18, 1936. House of Commons Debates, 18th Parliament, 1st Session : Vol. 4 Available from: https://parl.canadiana.ca/view/oop.debates_HOC1801_04/742?r=0&s=1

39. Vitale Brovarone E, Cotella G. Improving rural accessibility: A multilayer approach. *Sustainability*; 12.2020.

40. Lake R, Jacobs LR, Byerly ST. *The Final Report of the Royal Commission on National Passenger Transportation.* Gatineau, Quebec: Minister of Supply and Services Canada, 1992.

41. WTI. What is rural transportation? Why rural matters, https://westerntransportationinstitute.org/about/what%0A-%0Ais%0A-%0Arural%0A-%0Atransportation/ (2020, accessed 10 November 2021).

42. Brierley JS, Todd D. *Prairie small-town survival: The challenge of Agro-Manitoba*. Lewiston: E. Mellen Press, 1990.

43. Johnson EA. The organization of space in developing countries. Harvard University Press, 1970.

44. Kelley KB. Dendritic central-place systems and the regional organization of Navajo trading posts. In: CA Smith (ed) Regional analysis: Economic Systems. Academic Press, 1976, pp. 219-254. https://doi.org/10.1016/B978-0-12-652101-6.50016-4

45. Appleby G. Export monoculture and regional social structure in Puno, Peru. In: Smith AS (ed) *Regional analysis, volume 2: Social systems*. Cambridge: Academic Press, 1976, pp. 291–307.

46. Jaffe J. Structural monopoly and independent household production: Stagnation in the agrarian economy of Haiti. [master's thesis]. Ithaca: Cornell University, 1983.

47. Harvey D. *The Ways of the world*. London: Profile Books, 2016.

48. Markey S, Breen SP, Lauzon A, et al. *eds. State of rural Canada report. A report for Canadian Rural Revitalization Foundation*. 2015.

49. Jaffe J, Quark A. Not your grandparents' rural Saskatchewan. In: Jaffe J, Elliot PW, Sellers C (eds) *Divided: Populism, polarization and politics in the new Saskatchewan*. Halifax: Fernwood Publishing, 2021, pp. 98–114.

50. Shucksmith M. Re-imagining the rural: From rural idyll to Good Countryside. *J Rural Stud* 2018; 59: 163–172.

51. Bowler IR, Bryant CR, Cocklin C. *The sustainability of rural systems: Geographical interpretations*. Kluwer Academic Publishers, 2002.

52. Joseph AE. Rural Population and Rural Services. In Bowler, Bryant, and Conklin, eds. The Sustainability of Rural Systems. London: Kluwer, 2002, pp. 211-224.

53. Epp R. The political de-skilling of rural communities. In Epp, Witson (eds) Writing Off the Rural West. Edmonton: University of Alberta Press, 2011.

54. Deboosere R, El-Geneidy A. Evaluating equity and accessibility to jobs by public transport across Canada. *J Transp Geogr* 2018; 73: 54–63.

55. Larijani MM, Nahornyi T, Crizzle AM. Using GIS to examine transportation connectivity in Saskatchewan. *J Rural Community Dev* 2019; 14: 87–99.

56. Markey S. Fly-in, fly-out resource development: A new regionalist perspective on the next rural economy. In: Halseth G, Markey S, Bruce D (eds) *The next rural economies: Constructing rural place in a global economy*. Oxfordshire: Cabi Press, 2010, pp. 239–250.

57. Onescu JM. Rural restructuring: Community stakeholders' perspectives of the impact of a pulp and paper mill closure on community relationships. Rural Society 2015; 24(2):177–199.Available from: https://doi.org/10.1080/10371656.2015.1060719.

58. Bollman R. Context Matters in Rural Workforce Development: 7 Important Facts. 202. *CERIC*, https://ceric.ca/2020/06/context-matters-in-rural-workforce-development-7-important-facts. (2020).

59. Bowler IR, Bryant CR, Cocklin C. *The sustainability of rural systems: Geographical interpretations*. Kluwer Academic Publishers, 2002.

60. Breau S. Rising inequality in Canada: A regional perspective. *Appl Geogr* 2015; 61: 58–69.

61. Bannister, D. (n.d.) Exploring Transport Inequality: The less well-off lose out again. http://www.inequalityintransport.org.uk/exploring-transport-inequality/less-well-lose-out-again

62. Christensen PN. *Investment and policy decisions involving rural road networks in Saskatchewan: A network design approach*. University of Saskatchewan, 2003.

63. Rogers N and Leitch Rural transportation issues and options for Lanark County. Report for Lanark County, 30 September 2016. Ontario, Canada. Available from: https://lanarkkids.ca/wp-content/uploads/2017/02/Rural-Transportation-Issues-and-Options-for-Lanark-County_Final-Report-S....pdf.

64. Lichter DT, Parisi D, Taquino MC. The geography of exclusion: Race, segregation, and concentrated poverty. *Soc Probl* 2012; 59: 364–388.

65. Jiang L, Wen H, Qi W. Sizing up transport poverty alleviation: A structural equation modeling empirical analysis. *J Adv Transp* 2020; 2020: 1–13.

66. Bigsten A and Tengstam S. Smallholder diversification and income growth in Zambia. Journal of African Economies 2011; 20(5):781–822.

67. Rodríguez-Pose A, Hardy D. Addressing poverty and inequality in the rural economy from a global perspective. *Appl Geogr* 2015; 61: 11–23.

68. Urry J. Does mobility have a future? In: Grieco M, Urry J (eds) *Mobilities: New perspectives on transport and society*. London: Routledge, 2016, pp. 3–20.

69. Reimer B, Barrett J, Vodden K, et al. Rural-Urban interactions and interdependence. In: Vodden K, Douglas D, Markey S, et al. (eds) *The theory, practice and potential of regional development: The case of Canada*. New York: Routledge, 2019.

70. Hall H, Olfert R. Saskatchewan. In: Markey B, Lauzon G, Ryser M (eds) *The state of rural Canada*. Canadian rural revitalization Foundation, 2015, pp. 25–30.

71. Jones C, McCreary T. Zombie automobility. *Mobilities*. Available from: https://doi.org/10.1080/17450101.2021.1940245.

72. Camarero LA and Oliva J. Exploring the social face of urban mobility: Daily mobility as part of the social structure in Spain. International Journal of Urban and Regional Research 2008; 32(3): 344-362. DOI:10.1111/j.1468-2427.2008.00778.x

73. Wilt J. *Do androids dream of electric cars? Public transit in the age of Google, Uber, and Elon Musk.* Between the Lines, 2020.

74. O'Leary S. *The economic disadvantage of transportation for women in Northern Ontario*. University of Guelph, 2008.

75. Villeneuve D and Kaufmann V. *Exploring the causes of social exclusion related to mobility for non-motorized households*. Transportation Research Record 2020; 2674(8):911–920.

76. Yago G. The sociology of transportation.Annual Review of Sociology 1983; 9(1):171–190. Available from: https://doi.org/10.1146/annurev.so.09.080183.001131.

77. Albrecht DE. A comparison of metro and nonmetro incomes in a twenty-first century economy. *J Rural Soc Sci* 2012; 27: 1–23.

78. Jaarsma CF, van Dijk T. Financing local rural road maintenance : who should pay what share and why? Transportation Research. A, Policy and practice. 2002; 36:507–524. Available from: https://doi.org/10.1016/S0965-8564(01)00018-0.

79. Poon JPH, Tan GKS, Yin W. Wage inequality between financial hubs and periphery. *Appl Geogr* 2015; 61: 47–57.

80. Statistics Canada. *Population size and growth in Canada: Key results from the 2016 Census*.

81. Marr E. Assessing transportation disadvantage in rural Ontario, Canada: A Case study of Huron County. *J Rural Community Dev* 2015; 10: 100–120.

82. The Social Research & Planning Council. *The road ahead: A study of transportation needs across Huron and Perth Counties*. Stratford, 2012.

83. Aradau C, Huysmans J. Mobilising (global) democracy: A political reading of mobility between universal rights and the mob. *Millenn J Int Stud* 2009; 37: 1-18.

84. Baldwin T. The constitutional right to travel: Are some forms of transportation more equal than others? Nw. J. L. & Soc. Pol'y 2006; 1(1):213–266.

85. Caggiani L, Camporeale R, Ottomanelli M. Facing equity in transportation Network Design Problem: A flexible constraints based model. *Transp Policy* 2017; 55: 9–17.

86. UN General Assembly, International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Part III, Article 12(1).

87. Canadian Transportation Agency (OTC-CTA). Canadian Transportation Agency issues International Working Group's recommendations on mobility aids and air travel. 2019. https://otc-cta.gc.ca/eng/content/canadian-transportation-agency-issues-international-working-groups-recommendations-mobility

88. Newman D. Automobiles and socioeconomic sustainability: Do we need a mobility bill of rights? *Transfers* 2017; 7: 100–106.

89. Grieco M and Urry J. Mobilities: New perspectives on transport and society. Burlington: Ashgate Publishing Company, 2011.

90. Bärnthaler R, Novy A, Stadelmann B. A Polanyi-inspired perspective on social-ecological transformations of cities. *J Urban Aff* 2020; 00: 1–25.

91. Grant PR, Rice B. Transportation problems of the rural elderly: A needs assessment. Canadian Journal on Aging 1983; 2(3):107–124. Available from: https://doi.org/10.1017/S071498080000698X.

92. Sylvestre G, Snyder M. *The mobility needs And transportation issues of the aging population in rural Manitoba*. Winnipeg, https://core.ac.uk/download/pdf/144470191.pdf (2006).

93. Shirgaokar M, Dobbs B, Anderson L, Hussey E. *Do rural older adults take fewer trips than their urban counterparts for lack of a ride?*. Journal of Transport Geography 2020; 87:102819. Available from: https://doi.org/10.1016/j.jtrangeo.2020.102819.

94. Lamanna M, Klinger CA, Liu A, Mirza RM. *The association between public transportation and social isolation in older adults: A scoping review of the literature*. Canadian Journal on Aging 2020; 39(3):393–405. Available from: https://doi.org/10.1017/S0714980819000345.

95. Boarnet MG, Giuliano G, Hou Y, et al. First/last mile transit access as an equity planning issue. *Transp Res Part A Policy Pract* 2017; 103: 296–310.

96. Grisé E, Boisjoly G, Maguire M, et al. Elevating access : Comparing accessibility to jobs by public transport for individuals with and without a physical disability. *Transp Res Part A* 2019; 125: 280–293.

97. Handy SL. Is accessibility an idea whose time has finally come? Transportation Research Part D: Transport and Environment 2020;83: 102319. Available from: https://doi.org/10.1016/j.trd.2020.102319.

98. Evcil AN. Wheelchair accessibility to public buildings in Istanbul. *Disabil Rehabil Assist Technol* 2009; 4: 76–85.

99. Sheller M. Mobility. Sociopedia.isa 2011. Available from: https://doi.org/10.1177/20568460116.

100. Brown A. Redefining car access: Ride-hail travel and use in Los Angeles. Journal of the American Planning Association 2019; 85(2):83-95. Available from: https://doi.org/10.1080/01944363.2019.1603761.

101. Schwanen T. Towards decolonial human subjects in research on transport. *J Transp Geogr* 2020; 88: 102849.

102. Bärnthaler R, Novy A, Stadelmann B. A Polanyi-inspired perspective on social-ecological transformations of cities. *J Urban Aff* 2020; 00: 1–25.

103. Hananel R, Berechman J. Justice and transportation decision-making: The capabilities approach. *Transp Policy* 2016; 49: 78–85.

104. Altshuler A. Equity as a Factor in Surface Transportation. *ACCESS Mag* 2013; 2012: 2–9.

105. Pereira RHM, Schwanen T, Banister D. Distributive justice and equity in transportation. *Transp Rev* 2017; 37: 170–191.

106. Kronlid D. Mobility as capability. In: Uteng TP, Creswell T (eds) *Gendered mobilities*. London: Routledge, 2016.

107. Nussbaum M. *Creating capabilities: The human development approach*. Cambridge MA: Harvard University Press, 2013.

108. Sheller M. The new mobilities paradigm for a live sociology. *Curr Sociol* 2014; 62: 789–811.

109. Gabriel C. Book Review: Mobilities, mobility justice and social justice. *Stud Soc Justice* 2021; 15: 158–161.

110. LeFebvre H. 1968. Le Droit à la Ville. Paris: Anthropos.

111. Camarero LA, Olivia J. Exploring the social face of urban mobility: Daily mobility as part of the social structure in Spain. *Int J Urban Reg Res* 2008; 32: 344–362.

112. Verlinghieri E, Venturini F. Exploring the right to mobility through the 2013 mobilizations in Rio de Janeiro. *J Transp Geogr* 2018; 67: 126–136..

113. Dodson J, Gleeson B, Sipe N. *Transport disadvantage and social status: A review of literature and methods*. Report for the Urban Policy Program. Report no. 5, December 2004. Brisbane: Griffith University.

114. Allen J and Farber S. *Sizing up transport poverty: A national scale accounting of low-income households suffering from inaccessibility in Canada, and what to do about it*. Transport Policy 2019; 74:214–223. Available from: https://doi.org/10.1016/j.tranpol.2018.11.018.

115. Blumenberg E and Manville M. *Beyond the spatial mismatch: welfare recipients and transportation policy*. Journal of Planning Literature 2004; 19(2):182–205. Available from https://doi.org/10.1177/0885412204269103.

116. Delbosc A, Currie G. *The spatial context of transport disadvantage, social exclusion and well-being*. Journal of Transport Geography 2011; 19:1130–1137. Available from: https://doi.org/10.1016/j.trangeo.2011.04.005.

117. Titheridge H, Christie N, Mackett R, Hernandez DO, Ye R. *Transport and poverty: A review of the evidence*. Report for the UCL Transport Institute, 1 July 2014. London: UCL.

118. Lucas K, Mattioli G, Verlinghieri E, Guzman A. *Transport poverty and its adverse social consequences*. Transport 2016; 169(6):353–365. Available from: https://doi.org/10.1680/jtran.15.00073.

119. Shay E, Combs TS, Findley D, Kolosna C, Madeley M, Salvesen D. *Identifying transportation disadvantage: Mixed-methods analysis combining GIS mapping with qualitative data*. Transport Policy 2015; 48:129–138. Available from: https://doi.org/10.1016/j.tranpol.2016.03.002.

120. Sanchez TW. *Poverty, policy, and public transportation*. Transportation Research Part A 2008; 833–841. Available from: https://doi.org/10.1016/j.tra/2008.01.011.

121. Combs TS, Shay E, Salvesen D, Kolosna C, Madeley M. *Understanding the multiple dimensions of transportation disadvantage: The case of rural North Carolina*. Case Studies on Transport Policy 2016; 4:68–77. Available from: https://doi.org/10.1016/j.cstp.2016.02.004.

122. Markovich J and Lucas K. *The social and distributional impacts of transport: A literature review*. Working paper for the Transport Studies Unit, August 2011. Oxford: School of Geography and the Environment. Available from: https://www.tsu.ox.ac.uk/pubs/wpapers.html.

123. Lucas K. *Transport and social exclusion: Where are we now?*. Transport Policy 2012; 20:105–113. Available from: https://doi.org/10.1016/j.tranpol.2012.01.013.

124. Kamboj N, Jackson K, Babenko-Mould Y. *An exploration of how persons receiving in-center hemodialysis describe how access to transportation for treatment influences their overall health*. Nephrology Nursing Journal 2021; 48(2)137–145. Available from: https://doi.org/10.37526/1526-744X.2021.48.2.137.

125. Schwanen T, Lucas K, Akyelken N, Solsona DC, Carrasco JA, Neutens T. *Rethinking the links between social exclusion and transport disadvantage through the lens of social capital*. Transportation Research Part A 2015; 74:123–135. Available from: https://doi.org/10.1016/j.tra.2015.02.012.

126. Kenyon S, Lyons G, Rafferty J. *Transport and social exclusion: Investigating the possibility of promoting inclusion through virtual mobility*. Journal of Transport Geography 2002; 10:207–219.

127. Merton RK. *The Matthew effect in science, II: Cumulative advantage and the symbolism of intellectual property*. Isis 1988; 79(4)606–623. Available from: https://www.jstor.org/stable/234750.

128. Wasfi R, Steinmetz-Wood M, Levinson D. *Measuring the transportation needs of people with developmental disabilities: A means to social inclusion*. Disability and Health Journal 2017; 10:356–360.

129. Cass N, Shove E, Urry J. *Social exclusion, mobility and access*. The Sociological Review 2005; 53(3)539–555. Available at: https://doi.org/10.1111/j.1467-954X.2005.00565.x.

130. Litman T. *Social inclusion as a transport planning issue in Canada*. Paper presented at: Transport and Social Exclusion G7 Comparison Seminar; 2003 Apr 4; London, UK.

131. Mattson J. *Transportation, distance, and health care utilization for older adults in rural and small urban areas*. Transportation Research Record: Journal of the Transportation Research Board 2011; 2265:192–199. Available from: https://doi.org/10.3141/2265-22.

132. Arora P. *Immigrant voices: An exploration of immigrants' experiences in rural Ontario*. [master's thesis]. Guelph: University of Guelph; 2017.

133. Allen J and Farber S. *Planning transport for social inclusion: An accessibility-activity participation approach*. Transportation Research Part D 2020; 78:102212. Available from: https://doi.org/10.1016/j.trd.2019.102212.

134. Lättman K, Friman M, Olsson LE. *Perceived accessibility of public transport as a potential indicator of social inclusion*. Social Inclusion 2016; 4(3)36–45. Available from: https://doi.org/10.17645/si.v4i3.481.

135. Lubitow A, Abelson MJ, Carpenter E. *Transforming mobility justice: Gendered harassment and violence on transit*. Journal of Transport Geography 2020; 82:102601. Available from: https://doi.org/10.1016/j.jtrangeo.2019.102601.

136. Angeles L. *Transporting difference at work: Taking gendered intersectionality seriously in climate change agendas*. In: Cohen MG ed. Climate change and gender in rich countries: Work, public policy and action. London: Routledge; 2017. Available from: https://doi.org/10.4324/9781315407906-7.

137. Farber S, Mifsud A, Allen J, Widener MJ, Newbold KB, Moniruzzaman MD. *Transportation barriers to Syrian newcomer participation and settlement in Durham region*. Journal of Transport Geography 2018; 68:181–192. Available from: https://doi.org/10.1016/j.jtrangeo.2018.03.014.

138. Arctic Gateway. The Gateway [Internet]. Manitoba (CA): Arctic Gateway; 2021. Available from: http://arcticgateway.com/the-gateway.

139. Morton K. *Hitchhiking and missing and murdered Indigenous women: A critical discourse analysis of billboards on the Highway of Tears*. Canadian Journal of Sociology 2016; 41(3):299–325. Available from: https://doi.org/10.29173/cjs28261.

140. Bussidor I and Bilgen-Reinart Ü. *Night spirits: The story of the relocation of the Sayisi Dene.* Manitoba: U of M Press. 2014.

141. Truth and Reconciliation Commission of Canada. *Survivors Speak*. Canada: Truth and Reconciliation Commission of Canada; 2015. 259 p.

142. Bristow M and Gill V. *Northern assets: Transportation infrastructure in remote communities*. Report for Centre for the North. December 2011. Canada: The Conference Board of Canada. Available from: https://www.conferenceboard.ca/e-Library/abstract.aspx?did=4567.

143. Bovey P. Crisis in Churchill, Manitoba [Internet]. Senate of Canada; 21 June 2017. Available from: https://sencanada.ca/en/speeches/sen-bovey-crisis-churchill-inquiry-debate-adjourned.

144. MacIntosh C. *Churchill residents rejoice as rail service gets back on track* [Internet]. Manitoba: CBC; 2018 [updated 2018 Nov 1]. Available from: https://www.cbc.ca/news/canada/manitoba/churchill-rail-service-returns-november-1.4887333.

145. Western Economic Diversification Canada. *Government of Canada announces agreement in principle to restore rail service in northern Manitoba*. NewsWire; 2018.

146. Thompson Citizen. *Port of Churchill, Hudson Bay Railway now completely owned by northern Manitoba, Nunavut communities*. Thompson: Nickel Belt News; 2021. Available from: https://www.thompsoncitizen.net/nickel-belt-news/port-of-churchill-hudson-bay-railway-now-completely-owned-by-northern-manitoba-nunavut-communities-4296840.

147. Roy, A. *Forget universal basic income. We need universal basic mobility* [Internet]. 2025 AD; 2018. Available from: https://www.2025ad.com/forget-universal-basic-income.-we-need-universal-basic-mobility.

148. Triplett KL. *Citizen voice and public involvement in transportation decision-making. A model for citizen engagement*. Race, Gender & Class 2015; 22(3/4):83–106.

149. Triplett KL and Johnson GS. *Environmental justice and transportation: An analysis of public involvement at Pennsylvania Department of Transportation*. Race, Gender & Class 2011; 19(3/4):348–371. Available from: https://www.jstor.org/stable/43496853.

150. Unger H, Heller A, Lane LB, Matherly D. *Social and economic sustainability performance measures for public transportation: Final guidance document*. The National Academies Press 2019. Available from: https://doi.org/10.17226/25461.

151. Dize V. *Getting around in rural America*. Journal of the American Society on Aging 2019; 43(2):33–39.

152. Askari S and Peiravian F. *Public transportation quality of service: Factors, models, and applications*. Transport Reviews 2019; 39(4):558–560. Available from: https://doi.org/10.1080/01441647.2018.1531083.

153. Hickman R and Dean M. *Incomplete cost – incomplete benefit analysis in transport appraisal*. Transport Reviews 2018; 38(6)689–709. Available from: https://doi.org/10.1080/01441647.2017.1407377.

154. Jones P and Lucas K. *The social consequences of transport decision-making: clarifying concepts, synthesizing knowledge and assessing implications*. Journal of Transport Geography 2012; 21:4–16. Available from: https://doi.org/10.1016/j.jtrangeo.2012.01.012.

155. Mahmoud M, Hine J, Kashyap A. *Stakeholders' perspectives towards bus quality indicators*. Transport 2014; 167(3):156–177. https://doi.org/10.1680/tran.11.00083.

156. Waikar RD, Kalagnanam SS, Findlay IM. *Financial proxies for social return on investment analyses in Saskatchewan: A research report*. A report for Community-University Institute for Social Research, 2013. Canada: University of Saskatchewan.

157. Shi J and Zhou N. *A quantitative transportation project investment evaluation approach with both equity and efficiency aspects*. Research in Transportation Economics 2012; 36:93–100. Available from: https://doi.org/10.1016/j.retrec.2012.03.002.

158. Bills TS and Walker JL. *Looking beyond the mean for equity analysis: Examining distributional impacts of transportation improvements*. Transport Policy 2017; 54:61–69. Available from: https://doi.org/10.1016/j.tranpol.2016.08.003.

159. Bešinović N. *Resilience in railway transport systems: A literature review and research agenda*. Transport Reviews 2020; 40(4):457–478. Available from: https://doi.org/10.1080/01441647.2020.1728419.

160. Geerlings H, Klementzschitz R, Mulley C. *Development of a methodology for benchmarking public transportation organisations: A practical tool based on an industry sound methodology*. Journal of Cleaner Production 2006; 14:113–123. Available from: https://doi.org/10.1016/j.jclepro.2005.03.021.

161. Rohanna K and Tayman J. *Census data for transportation planning, analysis, and implementation*. Journal of Economic and Social Measurement 2006; 31:167–183.

162. Federal Highway Administration. *Planning for transportation in rural areas*. Report for the Federal Highway Administration, July 2001. December 2004. Washington, USA.

163. Pettersson D and Hrelja R. *How to create functioning collaboration in theory and in practice – practical experiences of collaboration when planning public transport systems*. International Journal of Sustainable Transportation 2020; 14(1):1–13. Available from: https://doi.org/10.1080/15568318.2018.1517842.

164. Halseth G and Ryser LM. *The deployment of partnerships by the voluntary sector to address service needs in rural and small town Canada*. Voluntas 2007; 18:241–265. Available from: https://doi.org/10.1007/s11266-007-9042-8.

165. Matte CM. *The social factors that influence the success of rural careshare operations in the Kootenay region of British Columbia, Canada*. [master's thesis]. Victoria: Royal Roads University; 2014.

166. Baynton DC, Disability and the justification of inequality in American history. In: Davis LJ, editor. The Disability Studies Reader. 4th ed. New York: Routledge; 2013. p.16–32.

167. Davis LJ, Normality, power and culture. In: David LJ, editor. The Disability Studies Reader. 4th ed. New York: Routledge; 2013. p.1–14.

168. Oliver M. The Politics of Disablement. London: Palgrave; 1990.

169. Steinstra D. Disabling globalisation: Rethinking global political economy with a disability lens. Global Society 200; 16(2):109–121

170. Aldred R and Woodcock J. *Transport: challenging disabling environments*. Local Environment 2008; 13(6):485–496. Available from: https://doi.org/10.1080/13549830802259847.

171 Levesque M. *Governance models for rural accessible transportation: Insights from Atlantic Canada*. Disability & Society 2020. Available from: https://doi.org/10.1080/09687599.2020.1828044.

172. Vacon D, Green N, Lamrock J, Sally L, Stewart N. *Building safe and affordable housing: Digby county*. Report for Housing: Now and Into the Future, May 2018. Nova Scotia.

173. Denmark D. *The outsiders: Planning and transport disadvantage*. Journal of Planning Education and Research 1998; 17:231–245.

174. Levesque M. *Experiencing disability in three small New Brunswick Acadian communities*. Canadian Political Science Review 2017; 10(1):109–149.

175. Jacobs L, De Costa B, Cino V. *The Accessibility for Manitobans Act: Ambitions and achievements in antidiscrimination and citizen participation*. Canadian Journal of Disability Studies 2016; 5(4):1–24. Available from: https://doi.org/10.15353/cjds.v5i4.313.

176. Kovacs Burns K and Gordon GL. *Analyzing the impact of disability legislation in Canada and the United States*. Journal of Disability Policy Studies 2010; 20(4):205–218. Available from: https://doi.org/10.1177%2F1044207309344562.

177. Acker-Verney JM. *Changing public services: Intersectionality and experiences of women with disabilities*. Report for Changing Public Services, 2017. Ottawa: Canadian Research Institute for the Advancement of Women (CRIAW-ICREF). https://www.criaw-icref.ca/publications/intersectionality-and-the-experiences-of-women-with-disabilities/

178. Acker-Verney JM. Supporting Women with Disabilities to Participate In, and Benefit From, Research Fact Sheet; 2021. Halifax. (Forthcoming)

179. Easter Seals. *What we heard: A report about changing the response for women with disabilities experiencing domestic violence*. Report for the Not Without Us Project. 2020. Nova Scotia: Easter Seals.
180. Cattapan A, Acker-Verney JM, Dobrowolsky A, Findlay T, Mandrona A. *Community engagement in a time of confinement*. Canadian Public Policy. Forthcoming.
181. Gordon KD. *The impact of the COVID-19 pandemic on Canadians who are blind, deaf-blind, and partially-sighted*. Report for the Canadian Council of the Blind. April 2020. Canadian Council of the Blind: Ottawa.
182. Food Banks Canada. *Hunger Count 2021 Report*. 2021. Food Banks Canada: Mississauga.
183. Faghri A and Dorsey HC. *The use of GIS and relational database management systems to improve the scheduling operations of paratransit*. Transportation Planning and Technology 2000; 24(1):65–86. Available from: https://doi.org/10.1080/03081060008717661.
184. Livingstone-Lee SA, Skelton RW, Livingston N. *Transit apps for people with brain injury and other cognitive disabilities: The state of the art*. Assistive Technology 2014; 26(4):209–218. Available from: https://doi.org/10.1080/10400435.2014.930076.
185. Buning ME, Getchell CA, Bertocci GE, Fitzgerald SG. *Riding a bus while seated in a wheelchair: A pilot study of attitudes and behavior regarding safety practices*. Assistive Technology 2007; 19(4):166–179. Available from: https://doi.org/10.1080/10400435.2007.10131874.
186. Corran P, Steinbach R, Saunders L, Green J. *Age, disability and everyday mobility in London: An analysis of the correlates of 'non-travel' in travel diary data*. Journal of Transport & Health 2018; 8:129–136. Available from: https://doi.org/10.1016/j.jth.2017.12.008.
187. Scott DM, Newbold KB, Spinney JEL, Mercado R, Páez A, Kanaroglou PS. *New insights into senior travel behavior: The Canadian experience*. Growth and Change 2009; 40(1):140–168.
188. Senate of Canada. Beyond freefall: Halting rural poverty. 2008. Ottawa, Ontario, Canada: Standing Senate Committee on Agriculture and Forestry.
189. Statistics Canada. 2016. Canadian Demographics at a Glance. Ottawa: Ministry of Industry.
190. Council of Canadians with Disabilities. *Reducing Greyhound transportation services could have domino effect*. 10 July 2018.
191. Purdon C. Rural womenspeak out about the face of poverty. Final report of the Rural Women and Poverty Action Committee. 2002. Status of Women Canada: Ottawa.
192. Preibisch K. Migrant workers and changing work-place regimes in contemporary agricultural production in Canada. Int Jrnl Soc Agr Food 2011; 19: 62–82.
193. Fairey D, Hanson C, Macinnes G, et al. Cultivating farmworker rights: Ending the exploitation of immigrant and migrant farmworkers in BC. Vancouver, 2008.
194. Reid-Musson E. *Shadow mobilities: Regulating migrant bicyclists in rural Ontario, Canada*. Mobilities 2018; 13(3):308–324. Available from: https://doi.org/10.1080/17450101.2017.1375397.
195. Martens K. Feds should be doing something about loss of Greyhound bus service: MMIWG advocates [Internet]. Manitoba (CA): APTN News; 2021. Available from: https://www.aptnnews.ca/national-news/feds-should-be-doing-something-about-loss-of-greyhound-bus-service-mmiwg-advocates.
196. Mahajan K and Kim AM. *Vulnerability assessment of Alberta's provincial highway network*. Transportation Research Interdisciplinary Perspectives 2020; 6:100171. Available from: https://doi.org/10.1016/j.trip.2020.100171.
197. Comack E and Balfour G. The power to criminalize: Violence, inequality and the law. Nova Scotia/Winnipeg: Fernwood Publishing; 2004.
198. Tallman RA. *Representations of security and insecurity in the Highway of Tears: A critical discourse analysis*. [master's thesis]. British Columbia: University of Northern British Columbia; 2014.
199. Bowstead JC. *Private violence/private transport: The role of means of transport in women's mobility to escape from domestic violence in England and Wales*. Mobilities 2020; 15(4):559–574. Available from: https://doi.org/10.1080/17450101.2020.1750289.
200. Faller YN, Wuerch MA, Hampton MR, Barton S, Fraehlich C, Juschka D. *A web of disheartenment with hope on the horizon: Intimate partner violence in rural and northern communities*. Journal of Interpersonal Violence 2021; 26(9-10):4058–4083. Available from: https://doi.org/10.1177/0886260518789141.
201. Sodero S and Scott N. *Special issue: Canadian mobilities/contentious mobilities*. Canadian Journal of Sociology 2016; 41(3):257–276.
202. Sheller M and Urry J. *The city and the car*. International Journal of Urban and Regional Research 2000; 24(4):737–757. Available from: https://doi.org/10.1111/1468-2427.00276.

203. Martens K. *A justice perspective on transport and health*. In Nieuwenhuljsen MJ and Khreis H, editors. Advances in transportation and health: Tools, technologies, policies, and developments. Amsterdam/Oxford/Cambridge: Elsevier; 2020. p. 197–221.

204. Srinivasan S, Williams SD. *Transitioning from health disparities to a health equity research agenda: the time is now*. Public Health Rep. 2014;129 Suppl 2(Suppl 2):71-76. Available from: https://doi.org/10.1177/00333549141291S213.

205. Del Rio M, Hargrove WL, Tomaka J, Korc M. *Transportation matters: A health impact assessment in rural New Mexico*. International Journal of Environmental Research and Public Health 2017; 629(14). Available from: https://doi.org/10.3390/ijerph14060629.

206. Kapusta J, Schoffel l, Gogolishvili D, Globerman J. *Rapid response: HIV services in rural and remote communities*. Report for the Ontario HIV Treatment Network. Rapid Response Service report no.73, September 2013. Toronto, Ontario.

207. Hamadani F. *Demographic and ecologic analysis of traumatic injury transport outcomes and health care infrastructure in northern Quebec's rural communities*. [master's thesis]. Quebec: McGill University; 2013.

208. Lawford KM, Bourgeault IL, Giles AR. *"This policy sucks and it's stupid:" Mapping maternity care for First Nations women on reserves in Manitoba, Canada*. Health Care for Women International 2019; 40(12):1302–1335. Available from: https://doi.org/10.1080/07399332.2019.1639706.

209. McBain L and Morgan D. *Telehealth, geography and jurisdiction: Issues of healthcare delivery in northern Saskatchewan*. Canadian Woman Studies 2005; 24(4):123–129.

210. Hansen S, Newbold KB, Scot DM, Vrkljan B, Grenier A. *To drive or not to drive: Driving cessation amongst older adults in rural and small towns in Canada*. Journal of Transport Geography 2020; 86:102773. Available from: https://doi.org/10.1016/j.jtrangeo.2020.102773.

211. Lutz H. *Transportation solutions for rural seniors: A literature review*. Report for the Age-Friendly Community Initiative. June 2014. British Columbia: Nelson CARES Society.

212. Birrell S. "My quality of life has been compromised": U of S study finds STC closure has had a devastating impact on Saskatchewan people [Internet]. Saskatchewan (CA): SaskDispatch; 2021. Available from: https://saskdispatch.com/articles/view/my-quality-of-life-has-been-compromised-u-of-s-study-finds-stc-closure-has-had-a-devastating-impact-on-saskatchewan-people.

213. Donaghy, K. (2005). Social dimensions of sustainable transport: Introduction and overview. In K. Donaghy, S.Poppelreuter and G. Rudinger (Eds.) Social Dimensions of Sustainable Transport: Transatlantic Perspectives (pp. 1-13). Ashgate Publishing Company: Vermont.

214. Howard AF, Smillie K, Turnbull K, Zirul C, Munroe D, Ward A, Tobin P, Kazanjian A, Olson R. *Access to medical and supportive care for rural and remote cancer survivors in northern British Columbia*. The Journal of Rural Health 2014; 30:311–321. Available from: https://doi.org/10.1111/jrh.12064.

215. Illinois Department of Public Health. *Understanding social determinants of health*. Illinois: State of Illinois; 2021. Available from: https://dph.illinois.gov/topics-services/life-stages-populations/infant-mortality/toolkit/understanding-sdoh.html

216. Quesada J, Hart LK, Bourgois P. *Structural vulnerability and health: Latino migrant laborers in the United States.* Med Anthropol 2011; 30(4):339–362. Available from: https://doi.org/10.1080/01459740.2011.576725.

217. Glazener A, Sanchez K, Ramani T, Zietsman J, Nieuwenhuijsen MJ, Mindell SJ, Fox M, Khreis H. *Fourteen pathways between urban transportation and health: A conceptual model and literature review.* Journal of Transport & Health 2021; 21:1-26218.

218. Forkenbrock DJ and Sheeley J. *Effective methods for environmental justice assessment.* Washington: Transportation Research Board, 2004.

219. Smith N, Hirsch D, Davis A. *Accessibility and capability: The minimum transport needs and costs of rural households.* Journal of Transport Geography 2012; 21:93-101.

220. Canadian Research Institute for the Advancement of Women (CRIAW-ICREF). *Feminist intersectionality and GBA+.* 2017. https://www.criaw-icref.ca/our-work/feminist-intersectionality-and-gba/

221. Brunton G, Thomas J, O'Mare-Eves A, Jamal F, Oliver S, Kavanagh J. *Narratives of community engagement: A systemic review-derived conceptual framework for public health interventions. BMC Public Health 2017; 17:944-958.*

222. Pickup, L. Giuliano, G. (2005). Transport and Social Exclusion in Europe and USA. In K.Donaghy, S.Poppelreuter and G. Rudinger (Eds.) Social Dimensions of Sustainable Transport: Transatlantic Perspectives (pp. 38-49). Vermont: Ashgate Pub.

223. World Resources Institute. Mexico adds fundamental right to mobility to its constitution [Internet]. Washington: World Resources Institute; 2021 April 6. Available from: https://www.wri.org/outcomes/mexico-adds-fundamental-right-mobility-its-constitution

224. Fraser N. Reframing justice: In a globalizing world. New Left Review 2005; 36:69-88.

225. Lucas K and Jones P. Social impacts and equity issues in transport: an introduction. Journal of Transport Geography 2012; 21(2012):1–3. Available from: https://doi.org/10.1016/j.jtrangeo.2012.01.032.

226. Sterns R, Antenucci V, Nelson C, Glasgow N. Public transportation service models. Generations 2003; 27(2):20–22.