GREENWAY (TRAILS) FOR ALL

IDENTIFYING THE INEQUITIES OF ACTIVE TRANSPORTATION IN RURAL BC



Contents

Acknowledgements	2
Executive Summary	3
Project Background	4
Structure	4
Methodology	5
Limitations	5
Introduction	6
What we know	7
Active Transportation & Inequities: an intersectional analysis	7
Transportation Inequity	7
Gender	8
Socio-economic status	8
LGBTQ2S+	9
People of colour	10
Persons with diverse abilities	11
Seniors	12
Rural Context	12
Indigeneity and Active Transportation	13
Why Separate Indigenous issues?	13
What does colonization look like in trails/current process?	14
Unique factors to consider	15
Barriers, Challenges, and Best Practices	15
Table 1: Priority areas of focus by proponent	16
Safety & Security Concerns	16
Lack of Indigenous considerations	17
Lack of representation	17
Limited capacity in rural areas	18
Lack of data	19
Table 2: Summary of Challenges and Best Practices	19
Conclusions and actions for organizations, local governments, or Senior Governments	23
Table 3: Actions for organizations, local governments, or senior government	24
References	27



vancouver foundation

The Trails Society of BC (TrailsBC) graciously thanks the Real Estate Foundation of British Columbia and the Vancouver Foundation for funding Greenway (Trails) for All to make this research possible. Without asking questions, we can never know how to address an issue.

This report will provide inspiration and motivation to TrailsBC to re-evaluate the approach to rail trails and greenway trails that serve as active transportation trails and networks. We endeavour to focus on decolonizing our thoughts and actions to make non-motorized outdoor recreation and active transportation not just welcoming but inclusive for all.

Thank you to the individuals and organizations who spent time to discuss inequity in active transportation in British Columbia – these insights grounded the theoretical review that was conducted and has proven invaluable. We look forward to continuing and building those relationships.

We wish to acknowledge that the land, on which we live and learn, was first touched by the thousands of First Nations, Inuit, and Métis peoples before us. We recognize that exploration is an inherently colonial activity, and we thank you for your generosity to date. TrailsBC endeavours to correct errors for the future of respectful trails and land use for all.

Updated on June 10, 2021 for style and marketing.

Suggested citation: Howse, Tara and Libby, Damyn. (2021). Greenway (Trails) for All: Identifying the inequities of active transportation in rural BC. Vancouver Foundation and Trails Society of BC.

Executive Summary

Using intersectionality, this research analyzed the barriers to the equitable access of active transportation (AT) in rural British Columbia. There is a dearth of research on this topic and even less Canadian-based research, which speaks to the need for a greater investment in understanding what the barriers are to specific demographics.

While a lack of safe infrastructure and associated concerns of safety are commonly cited and known barriers, when analyzing from additional perspectives, instances of harassment, racism, and anti-queer sentiments arose. These issues are systemic and can be seen through the distribution of resources within the transportation system in general. For rural communities, barriers become more challenging to address due to limited resources and capacity. For inter-community travel, the distances to install new infrastructure and then maintain that infrastructure is complicated by greater distances and multiple jurisdictions to navigate.

Despite the limitations of a lack of AT-specific research, intersectionality allowed the review of other indicators related to inequity and transportation to identify barriers. Five themes emerged:

- 1. Safety and security concerns
- 2. Lack of Indigenous considerations
- 3. Lack of representation
- 4. Rural capacity limitations
- 5. Lack of data

There are various challenges associated within each barrier, with ample cross-over that can have compounding effects on various groups. The best practices that were identified are multi-faceted, dependent on resource availability, and will have various permutations based on whether it is being addressed from an organizational or governmental level. Flexibility, localized need, and integrated approaches are core concepts to keep in mind.

There are four primary categories of proponents, each with varying levels of jurisdiction and responsibility. Although all should work collaboratively for best results to improve equitable access, ultimately, leadership must emerge from within to achieve results. Each category has key areas they should focus on. They are:

- 1. Organizations; focus on internal policies and practices to improve inclusion and diversity.
- 2. Rural local governments; prioritize AT planning and infrastructure using intersectionality and a distribute resources based on need (vertical distribution).
- 3. First Nations governments; prioritize AT planning and infrastructure using intersectionality and a vertical distribution method for decision-making.
- 4. Senior-level governments (i.e., provincial and federal); address systemic racism, anti-queer, and misogyny while also increasing supports to local, rural, and First Nations government to understand their local issues and develop solutions.

As more research emerges, the actions should be refined and targeted to individual groups, organizations, or communities.

Project Background

Problem statement: There is an inequity for British Columbians to access active transportation.

In 2019, the Province of British Columbia (BC) published an active transportation strategy, *Move Commute Connect*, ¹ that aims to improve the walking, cycling, and other active networks in the province. In the strategy, it is recognized there is an inequity to individuals accessing active transportation. An intersectional lensⁱ, commonly known as a Gender Based Analysis Plus (GBA+) in Canada, was applied to the strategy but fails to (1) bring up larger inequities involved in active transportation developments, particularly in relation to Indigenous and rural communities and (2) mention or addressing systemic safety concerns that are a part of active transportation networks and contributes to individual choices.

This exploratory research project, *Greenway (Trails)* for *All*, aims to understand barriers to active transportation in rural BC with a focus on equity seeking groupsⁱⁱ and Indigenous peoples. Rural BC, as in other Canadian provinces and territories, has a strong urban-rural divide with many considering anything outside of metro Vancouver or the Capital Regional District (Victoria) rural.² 40%³ of the province's 5,147,712⁴ population lives outside the Vancouver or Victoria area. This means that 2,059,085 people can often feel underheard and end up with policies that are developed for larger population centres but ill-suited for rural contexts,² such as the distribution of resources for active transportation infrastructure. For this research, we looked beyond the standard population centres and focused on inter-community travel, recognizing that many people travel longer distances for work, recreation, or errands in rural areas. This allowed for the inclusion of First Nations communities as most communities are under the 1,000-person population centre threshold.

As happens with exploratory research, more questions have arisen than answers supplied and an equally varying array of pathways to consider future research for policy recommendations has emerged.

The question that guided this research was What are the barriers that limit equitable access to active transportation in rural communities in British Columbia?

STRUCTURE

After reviewing the methodology and limitations of this report, the introduction includes a summary of what is known within the field of equity in active transportation. This leads into an analysis using intersectionality to assess mis- and under-represented groupsⁱⁱⁱ and their unique concerns plus a review of rural contexts and issues. For Indigeneity and active transportation, a separate analysis was required. This is necessary to adequately understand how the unique relationships that Nations have with the Crown and the land impact active transportation. A section on the barriers, challenges, and best practices that were identified follows

¹ Intersectionality is a form of analysis that allows for understanding of how inequities impact people in different and compounding ways based on personal identity factors, including but not limited to race, socioeconomic status, gender, orientation, ethnicity, or disability.

This included but was not limited to gender, diverse abilities, LGBTQ2S+, seniors, socio-economic, and people of colour.

The terms mis- or under-represented group broad constitutes those that are not part of the majority power systems: those outside of the idealized able bodied, income secure, cis-white male. Internalized and systemic discrimination may cause a group to be stereotyped (mis-represented) or excluded (under-represented).

this analysis. The report concludes with actions for organizations and governments to take to improve equitable access of active transportation in rural BC.

METHODOLOGY

An extensive literature review was complemented by interviews with stakeholders and Indigenous voices. The literature was a mixture of academic, government, and non-government sources with an initial focus on rural Canada but expanded parameters as the resources became exhausted. The interviews represented a high-level but broad representation of tourism, individual users, those involved in trail building, advocacy or educational groups, planners, and non-profit organizations serving equity-seeking groups. The research spanned a number of disciplines, including transportation planning, health, environmental sciences, political science, economics, behavioural psychology, geography, and equity studies. As the focus of this project was understanding barriers that limit equitable access, intersectionality was the basis that formed the inquiry and its recommendations.

LIMITATIONS

Due to broad nature of the inquiry (inequities across multiple demographics), there are several limitations to this research. However, what are defined as limitations can simultaneously be viewed as additional research opportunities.

One challenge identified early was a lack of a definition around active transportation. It provided difficulties in defining the scope of research, purpose, and gaining understanding during stakeholder interviews and Indigenous conversations. Following *Move Commute Connect*, active transportation remains an elusive concept to define and is often described as any type of human-powered travel. This may be for recreation, work, or errands and it means something different for everyone, including whether it is a choice or by necessity. However, to address an issue, defining the problem must be at the forefront. Not having a consistent definition creates ambiguity for policy makers and for the public. To keep the research within scope, the primary activities centred around cycling and walking simply due to the available resources. This has resulted in some forms of human-powered activity being excluded, such as skateboarding, paddling, or snowshoeing that people may use. This focus means that those with mobility difficulties may be excluded from research scans, such as this.

Another limitation was understanding what is rural. The term rural differs by individual and by community. BC's large geography creates different rurality's throughout the province.² The Organization of Economic Cooperation and Development considers rural as a type based on proximity to urban areas and amenities.⁵ Federal standards divide communities into three population centres and rural areas. Population centres are divided into large urban (populations over 100,000), medium (populations between 30,000-99,999), and small (populations between 1,000-29,000).⁶ In BC, a grant^{iv} given to rural municipal governments or regional districts defines rural as a population of 25,000 or less.⁷ Concurrent to *Greenway (Trails) for All*, the BC Alliance for Healthy Living was conducting research on active transportation in small towns, identifying small towns as between 1,000-30,000. In the context of rural, definitions vary greatly which results in numerous permutations of understanding problems and, subsequently, their solutions.

The BC Rural Dividend Program provides up to \$25 million per year to assist rural communities in an effort to diversity economies beyond resource extraction projects (e.g., forestry).

Overarching this research is a general lack of data for rural communities in Canada, with active transportation proving to have even less. Canadian studies that exist are largely urban-focused, taking place in areas such as metro-Toronto, Montreal, or Greater Vancouver. For those resources that identified as rural, the populations that were covered have such variance in populations that identifying commonalities to develop recommendations proved difficult. Furthermore, most studies are based on intra-community (within community) versus inter-community (between communities), the latter of which is more common in rural areas than urban centres as people commute for work, errands, or recreation between communities. Within the Canadian landscape, very little research exists pertaining to questions of equity and active transportation.

The largest vacuum of data exists in relation to Indigenous issues and active transportation (and more broadly, trails). No Canadian studies nor government references could be found identifying or exploring how active transportation may be experienced differently by Indigenous populations and communities, let alone any mention of what reconciliation means for the active transportation sector. Some resources were found in relation to trail development on First Nations reserves but the broader question of how colonization or decolonization interacts with active transportation has not been explored.

COVID-19 impacts were not explored. From municipalities shutting down streets to motor vehicles to senior governments providing infrastructure grants to local governments, there has been a general increase in active transportation projects because of COVID-19. However, a systematic analysis on what those impacts mean, particularly in relation to equity, was not possible within the scope of this research.

Lastly, the interviews were guided conversations that allowed for a systematic collection of data but also created the space to explore areas that had not been considered. This format led to the recognition of potential trauma triggers in Indigenous peoples, people of colour, and LGBTQ2S+ communities when discussing active transportation barriers. As this research was not set-up to support trauma-related triggers, delving into this topic was not ethically possible. This concept of trauma in active transportation has not been adequately explored so it remains at an extremely high and generalized level for this report.

Introduction

Transportation is vital for a just and inclusive society, but the inequitable distribution of transportation infrastructure hinders individuals and communities in achieving that goal. Transportation is necessary for our daily living, such as accessing groceries, healthcare, or getting to work: ¹⁰ people need choices in their daily transportation design, ¹¹ which contributes to an equitable society. Systemic inequities are built into our transportation system through a history of discriminatory practices and development that can prevent or inhibit access to opportunities. ¹⁰

The purpose of this research is to identify inequities to active transportation (AT) for rural British Columbians. The large scope of research results in an environmental scan that includes a literature review plus a select group of interviews to identify key themes. The research has resulted in the creation of a systemic gaps analysis, raising more questions than answering questions, identifying the dearth of information related to active transportation and equity, and ultimately supporting the need for additional research. Actions are included that identify key areas for identifying barriers and span suggestions for organizations, local governments, First Nations governments, and provincial and federal level governments.

Improving equity in AT access is emerging as a conversation within government and local government planning bodies. ¹² The Province of British Columbia (BC) has incorporated an intersectional analysis into its AT planning and encourages that approach for municipalities as they make their own AT plan and develop infrastructure. ¹ Inclusive design models and awareness seek to reduce the barriers to those with physical mobility issues in accessing outdoor spaces. ¹³ There is a growing awareness of the inequitable distribution of

active infrastructure within lower-income neighbourhoods compared to higher-income neighbourhoods, which can lead to questions of racial or ethnic exclusion.¹⁴

Inquiries and analyses were made to consider how gender, socio-economic status, sexual orientation and identification (LGBTQ2S+), people of colour, people of diverse abilities, seniors, and Indigeneity can impact access to active transportation in rural British Columbia. Children and youth were not specifically included as part of this inquiry, although some literature did emerge in relation to safe school access and youth who identify within the LGBTQ2S+ communities.

Indigenous peoples (First Nations, Métis, and Inuit) in Canada have a unique relationship with provincial, territorial, and federal governments and are not "stakeholders" in a way that is associated with other organizations or groups. Each Nation is unique and, particularly in relation to land and land-access, additional considerations must be addressed. For this report, active transportation with Indigenous peoples (on- or off- First Nations reserves) has been considered with a recognition of such distinctions.

WHAT WE KNOW

Cycling as a means of transportation exists throughout the world: across genders, socio-economic ranges, topographies, and climates. Despite common beliefs, topography (hilliness)¹⁵ and poor weather¹⁶ have virtually no correlation with the likelihood of cycling rates.¹⁵ Similarly, the purpose of trip (e.g. work; errands) nor levels of physical ability are adequate predictors of cycling rates in a community.¹⁷

Much of the research focusing around active transportation is urban-centric and U.S.-based, ¹² with a typical end-goal of the workplace during a standard work week of Monday to Friday, 9am-5pm¹⁷. Consistently across the research, it is shown that issues of safety are the biggest barriers to cycling in general, ^{17,18,19} with safety concerns related to inadequate infrastructure (e.g. separated and protected bike lanes) and the associated safety concerns from motorized traffic incidents. Safety was also seen as a concern for pedestrians, with infrastructure ranging from suitable cross-walks to ill- or un-maintained ¹⁶ sidewalks. ²⁰

In areas where AT is less supported, there are greater instances of pedestrian injury and fatalities²⁰. Support comes from a combination of planning goals and political will, where planning, engagement, implementation, and maintenance are all connected.^{15,16,20,11} As will be explored, simply increasing the rates of AT participation will **not** directly result in increased diversity or participation rates.¹⁷

There are various cultural, social, and engrained systemic inequities that exist. "Build it and they will come" is not a sufficient ideology to increase the uptake of active transportation rates within mis- or underrepresented groups. In the sphere of equity, as mountain biker Brooklyn Bell says, there is "a difference between being included and being welcome. Just because you are welcoming to people doesn't mean you're necessarily inclusive". 21

Active Transportation & Inequities: an intersectional analysis

TRANSPORTATION INEQUITY

To understand equity barriers in AT, it is necessary to recognize that systemic inequities are embedded within the broader transportation system. Transportation planning can perpetuate social inequities of gender, socio-economic status, disabilities, and race. Globally, there is recognition that there is inequity in transportation in general, ²² with employment and transportation access being intimately connected. ²³ In North America, the prevalence of car culture prioritizes motorized forms of transportation, creating a lack of

resources and political will to invest in active transportation^{11,22,14,24} and ultimately favours those with the means to afford a vehicle.^{14,25}

Equity in transportation planning is increasingly part of the conversation, ²⁶ with social justice concepts becoming embedded within the planning process. ¹⁰ For transportation – and by extension active transportation – equity looks at analyzing how the distribution of transportation systems are impacting people, both good and bad. ²⁷ Two social justice terms that are increasingly being used in transportation plans are *horizontal equity* and *vertical equity*. ^{10,28} Horizontal equity refers to the equal treatment and distribution of all resources. Vertical equity allocates resources to those who need them most.

For active transportation, an example of horizontal equity would be that everyone receives the same bicycle. Vertical equity would take into consideration such factors as whether the person is a child or adult; taking a paved or dirt track route; if they need a helmet or special shoes; or if they have a physical limitation that requires adaptive or mobility assistance.

GENDER

Looking at the transportation system, including public transit, there are gender-based inequities that emerge.²² Transportation systems are designed to get a physically independent individual from their home to their place of work during a traditional North American work week.¹⁷ As this is the system that is available, this is the system that has become researched: an individual leaving home, going to work, and coming back.²³ In reality, women's travel patterns differ significantly.²⁹ This is partly to address personal security concerns as women will take a detoured route to avoid harassment or abuse²² – which are heightened for women of colour – but also due to the gendered labour divide.^{22,29} This divide results in women either working in non-traditional work weeks (e.g., working in customer service sector or health services, both which rely on weekend and shift work schedules) or from being a stay-at-home parent, which results in travels of multiple stops due to errands (e.g. dropping kids off before heading for groceries).¹⁷

In North America, there is a significant gender-divide when it comes to cycling with rates consistently less than half of men's cycling rates. ^{14,30} In Canada, the cycling rate for women is approximately 30 percent. ¹⁷ BC's AT strategy did not provide a gendered breakdown of usage rates. Safety is touted as the primary reason for not choosing cycling, usually related to infrastructure concerns. ^{14,17} However, harassment ^{11,22} or abuse due to stereotypes and cultural norms has also been reported. ^{14,17,30}

SOCIO-ECONOMIC STATUS

The literature is clear: socio-economic status is an important consideration for transportation²³ and active transportation planning.²³ Although there are variables within this, when it comes to transportation choices, lower income people have fewer choices.^{11,23} Lower rates of car ownership means that usage rates of active transportation is not a lifestyle choice but a means of necessity.^{20,30} In BC, the highest user group of AT are those with no reliable access to a motor vehicle.³¹

Despite being the highest user of cycling for commuting, low income people and families are often "invisible"¹⁴ and, in low-income neighbourhoods, have less access to safe infrastructure. ¹² For those who are pushing for greater investments in infrastructure, advocacy groups do not necessarily represent the majority of active transportation users³² nor do their efforts always equate to reduced inequities they can even exacerbate those inequities. ¹⁴ For example, bike helmet laws can negatively impact lower-income individuals who cannot afford helmets. This can result in an over-policing of those neighbourhoods. ¹⁴ Additionally, there are growing concerns amidst emerging evidence that cycling infrastructure may be driving gentrification, ³⁰ further displacing those already at high-risk and vulnerable.

When gender is intersected with socio-economic status, additional concerns for equity emerge. Women in BC earn less overall, with a median income of \$27,543 in comparison to men's median income of \$40,370.³³ There are over 1.8 million individuals in BC who net less than \$29,000^{33,v} and of that, 58% are women. Gender is only one of the identity factors that must be incorporated when socio-economic status is considered for AT.³² As will be explored below, intersections of socio-economic status and other identity factors further demonstrate how inequities exacerbate vulnerabilities.

LGBTQ2S+

Although there is literature surrounding systemic inequities of the LGBTQ2S+ (queer) community, the overall body of research remains low in Canada³⁴ with most research from the US.³⁵ There is little that incorporates queer considerations into active transportation³² although some does exist on youth and safety concerns of walking to school.³⁶ No grey literature or local government reports could be found that explicitly mentioned LGBTQ2S+ concerns. This includes an omission in the BC strategy.

Other disciplines and indicators help expand our understanding of the intersecting factors to the barriers of AT for queer communities in Canada. Infrastructure (e.g., reliable sidewalks; separated bike lanes) is important for general safety concerns but for LGBTQ2S+ communities, safety takes on an additional layer of phobic-triggered aggressive behaviours and systemic and historical discriminations. In Canada today, nearly half (47%) of post-secondary students witnessed or experienced discrimination based on gender, gender identity, or sexual orientation.³⁷ Specific to AT, interviewees noted this can be demonstrated through unacceptable workplace bathroom facilities or in the continued use of gender-binary symbols. In settings where a gender-divide seems unnecessary, such an outhouse, it can be viewed as a micro-aggression.¹¹

Safety concerns can also manifest in the fear of seeking out medical or policing help after an incident. Health equity studies routinely show us that the queer community is ostracized. Within the Canadian healthcare system, inequities related to transgender health care persist. For policing, it was only in December 2020 that the Canadian Association of Chiefs of Policy issued an apology for the historical mistreatment of LGBTQ2S+ communities in Canada. These two systems – health and justice – are relevant for AT as they (1) create an understanding of the overall systemic oppression that LGBTQ2S+ communities have experienced in Canada and they can be (2) directly involved when an incident occurs. For example, if a transperson is hit by a car while cycling, one interviewee questioned whether the attending police officer or subsequent medical professionals would demonstrate transphobic actions thereby mistreating the victim. These actions may be explicitly harmful, such as delaying required medical services, or through microaggressions, such as refusing to use correct pronouns. These types of actions, or inactions, create tension for LGBTQ2S+ people. At minimum, individuals may hide or conceal who they are as there is an implicit "expectation of danger because of [their] queerness".

Within sports, discrimination, harassment, and abuse are rampant for queer athletes.³⁴ In one BC-based study (a first of its kind), it was found that lesbian, gay, and bisexual youth in BC are half as likely to be participating in sport and physical activity as their hetero- and cis-identifying cohorts.⁴⁰ There is a call for more training to facilitate inclusive environments³⁴ and this extends to outdoor spaces, where a button or sticker can create a sense of inclusion and community, particularly for visitors.¹¹

^v The official low-income cut-off in Canada is \$25,921 for a one person individual but the income brackets show in \$10,000 increments.

Employment indicators demonstrate the socio-economic inequities of LGBTQ2S+ people, creating increased vulnerabilities. In Canada, employment indicators show that gay and bisexual men and bisexual women earn less than their heterosexual counterparts. There are significant employment barriers within the queer community, such as receiving fewer interviews, losing promotions or raises, and experiences not fitting in. In Canada, it's estimated that between 25-40% of homeless youth identify as LGBTQ2S+. Other data shows that 26% of bisexual people live below the poverty line and that 49% of trans Canadians earn less than \$15,000 per year.

PEOPLE OF COLOURVI

Although the Black Lives Matter movement has forced the conversation of racism in Canada to the forefront, there is still a knowledge gap. There is a "denial... through refusal, a refusal to take a look at the information that exists" that demonstrates racism exists in Canada. Multiple and intersecting factors exist for racialized groups or people of colour (POC) in Canada and contribute to the inequitable access to AT. For Canadian studies, none could be found that explicitly considered AT and POC, a fact that was corroborated by a recent systemic review of the literature reviewing active transportation plans and equity in Canada. Canada and contribute to the inequitable access to AT.

A number of US-based studies have demonstrated that there is a significant lack of infrastructure investment in racialized – and disproportionately low-income – communities. ^{12,14} These communities are often overlooked and ignored in planning, despite recognizing that they make up the largest user-group of AT. ^{14,30} In poorer neighbourhoods, roads and surface are found to be in disrepair and ill-maintained, which creates a more dangerous cycling or walking environment. ¹⁴ There are often fewer traffic calming measures, despite having a greater likelihood of major thoroughfares through those neighbourhoods. ¹⁴ Studies have also shown that racism bias results in drivers being less likely to stop for a pedestrian who is a person of colour than a white pedestrian. ¹⁴

Concerns by immigrants and people of colour are often excluded by bike advocacy groups. Most advocacy groups tend to be white (and wealthier men). ^{14,30} In addition to a lack of understanding of socio-economic factors that are overlooked by these groups (see above section on Socio-economic status), there are intersecting concerns of social and historical racisms that exist that white organizations simply do not consider. ³² One stakeholder highlighted this difference by noting the inequity in accessing the outdoors. Despite the outdoors being free and theoretically accessible to all, a history of the Ku Klux Klan and an association of lynching in the forests results in an extreme uneasiness for some. Summed up, they said "bad things happen in the woods". ¹¹

Racism is not relegated to the past and the atrocities carried out on people of colour – issues that maintain power orders and oppression - cannot be adequately explored here. In Canada, deadly police force continues to disproportionately impact racialized people.⁴³ In British Columbia, anti-Asian and white supremacist related hated crimes have been on the rise during the COVID-19 pandemic.⁴⁴ What these indicators demonstrate is racism continues to exist in Canada today and that all-white advocacy groups are not able to fully comprehend the historical and modern day oppressions that exist. It provides context about how seemingly well-intentioned policies developed by white advocacy groups may exacerbate inequities related to race. For example, an increase in police presence in a neighbourhood due to a helmet law may instil a greater fear, anxiety, or even result in death due to systemic racism.^{11,14}

vi Indigenous peoples have been excluded from this section. Please see *Indigeneity and Action Transportation*.

Representation matters for developing equitable policies but also for breaking stereotypes and creating welcoming environments that actively include people of colour. Within the outdoor recreation culture, "living in a white gaze" is evident for people of colour at events, where music or food is organized by white organizations or in a crowd of white faces, theirs is the only one of colour. Hell-intentioned policies from white advocacy groups, as noted above, may result in additional oppressive instances. Within organizations, governments, and planning departments, a lack of representation means initiatives and policies may perpetuate power structures that exclude people of colour and contributes to inequitable access. Organizations and governments need to incorporate culturally relevant elements at events, ensure representation within their own structures that avoids tokenisments, and engage with people of colour and immigrant communities to ensure policies are developed with those lenses.

PERSONS WITH DIVERSE ABILITIES

6.2 million people – or 22% of the Canadian population – are reported to have at least one disability. 45 Addressing the barriers to all people with disabilities is not feasible within this report as it spans from physical to cognitive to acquired to invisible. Often, people will report having more than one type of disability. 45 Despite the large proportion of people reporting having a disability, the Province of British Columbia does not have publicly published data on the provincial population and disability rates.

For physical activity rates amongst people with disabilities in Canada, the information is nearly non-existent. In a 2012 report to the Standing Senate Committee on Human Rights, they report that the participation rate in physical activity is as low as 3% for people with diverse abilities, noting barriers such as a lack of facilities and programs; increased costs for specialized equipment and transportation; and a lack of coaches or others who can help train athletes. There are key infrastructure related barriers that exist for people with physical mobility issues, such as curb cuts or a poor of transition from sidewalk to road; uneven

or unmaintained surfaces; narrow and cluttered sidewalks or no sidewalks at all; poor lighting; and inadequate or absence of rest areas (to name a few).⁴⁷ In short, there is a large body of research that highlights barriers to mobility concerns for people with a physical mobility limitation but very little that are Canadian-based and less that considers what AT means within a variety of diverse abilities. Looking for information internationally, it is recognized that people with a disability are often absent from the cycling discussion, which puts them at a disadvantage for advocacy efforts.49

E-BIKE AS A PANACEA?

In recent years, the e-bike has emerged as a near panacea to address increased distances (notable for rural areas) and to mitigate or equalize physical limitations. The e-bike has been shown to generate increased mobility, particularly in populations that are not already cycling. For first time e-bike users, the greatest indicator to predict the uptake amongst first time users was when they knew someone who had an e-bike. However, cost can be a barrier to acquiring an e-bike and for people in low-income households, the likelihood of them knowing someone with an e-bike will be less. E-bikes may provide a useful tool for enhancing equitable transportation but only if incentives are put in place to address the cost barrier in conjunction with addressing other intersecting and systemic factors that exist.

What is known in Canada is that disability and socio-economic status are closely intertwined. 1.6 million Canadians with disabilities are unable to afford necessary living costs, such as prescription medications or various aids. The employment rate for

vii To better understand the term 'white gaze', read George Yancy's Black Bodies, White Gaze

persons with disabilities is at 59%, compared to 80% employment rate for persons without a disability. 45 Cost for specialized equipment to participate in physical activity, such as cycling, has been identified as a barrier to participation. 32,49 For someone experiencing income insecurity, there is often no real choice between choosing to spend money on basic needs, such as shelter costs or prescription medication, or purchasing a mobility aide, such as an e-bike.

SENIORS

This research considered unique needs of seniors to AT. It has been demonstrated, through ample studies, that age alone does not constitute a barrier to active transportation. ^{17,16,18} In other words, aging does not dictate whether an individual will or will not participate in active transportation. The oft-cited barrier to seniors and AT revolves around a decline in mobility issues, such as safety concerns from unmaintained sidewalks, ¹⁸ with the recognition that the likelihood of having a mobility issue increases substantially with age. ⁵⁰ Considering seniors within the context of mobility issues and their access to suitable, safe infrastructure may yield better results than seniors as an independent group. Complicating analyzing seniors as a standalone demographic, the term encompasses a wide-range of ages and needs, from active and independent retirees to those in need of supportive, full-time care. Those needs will dictate the level and ability of individual AT choice.

Another consideration for seniors is the intersection of socio-economic status and gender. In British Columbia, seniors (over 65 years) make up 18.3% of the total population with women making up 53% of the senior's demographic. That proportion increases as the age goes up. Once the age range reaches 85 and over, women make up 62.5% of the senior's population. Senior women also make up a larger share of seniors within the low-income tax measure bracket³³ and have an increased rate of mobility issues compared to men.⁵⁰

Instead of age as a primary consideration for equitable access to AT, planning, policies, and infrastructure would be best served using an intersectional perspective that considers multiple and overlapping factors. For example, overlapping factors of racialized or socioeconomic status on seniors would provide more accurate insights related to barriers and infrastructure needs, such as incorporating inclusive design ideas into AT planning that considers how historical racism may be affecting the distribution of resources.

RURAL CONTEXT

As is consistent throughout Canada, information on rural BC communities is limited and active transportation in rural BC communities even less. In addition, the resources that were available considered how intracommunity travel is conducted, which has created a void in the realities of rural travel patterns that see individuals travelling outside their immediate community for work, services, or errands. The lack of data is noticeably missing within mis- or under-represented groups, such as those in precarious employment or income insecurity situations, within LGBTQ2S+ communities, people of colour, diverse abilities, and Indigenous peoples.

The most commonly cited reason for the low rates of AT in Canada is inclement weather, however, other countries with high-rates of year-round cycling and similar weather experiences (e.g. Denmark, Finland, or Germany) show that weather is not the fundamental barrier. It is more complicated and includes infrastructure, safety, and convenience. These factors are exacerbated in rural contexts as inter-community travel often involves highway travel that have few or protective barriers and narrow or poor shoulders. On secondary or tertiary routes, surfaces can be unmaintained and dangerous. For example, a person walking or cycling would have safety concerns as they travel, even a short distance, on an unprotected, poorly

maintained shoulder alongside transport trucks travelling at 80 km/hr (or greater). These speeds translate into the greater likelihood that a person is more likely to be injured or die in motor vehicle incidents in rural communities than their urban counteraprts.⁵¹

In rural British Columbia, for land-related decisions, there are multiple jurisdictions and governments that may need to be navigated. For example, creating a connector trail from a First Nation reserve to a nearby municipality may require three local government bodies (First Nations council, regional district, and municipality), water way concerns (federal jurisdiction), and crossing over a portion of Agricultural Land Reserve (provincial jurisdiction). These complications require extensive communication, coordination, and the ability to navigate multiple ministries and the regulations that exist. Coordination may include (but is not necessarily limited to): regional districts; municipal governments; First Nations governments; Ministry of Transportation and Infrastructure; Ministry of Forests, Lands, Natural Resource Operations, and Rural Development; Indigenous Relations and Reconciliation; and Public Safety and Solicitor General and Emergency BC.

In relation to mis- or under-represented people, there are fewer services or organizations that are available to offer supports or a sense of inclusion or safety. One interviewee noted that when walking on a trail in a rural community, particularly when in a new community, the issue of safety is intensified by the prevalence of trail markers with bullet holes. ¹¹ A further message is delivered when a social justice-related sticker (e.g. rainbow flag, BLM, or Indigenous medicine wheel) is shot out, communicating that the community is not welcoming of a particular group.

Indigeneity and Active Transportation

WHY SEPARATE INDIGENOUS ISSUES?

Indigenous issues for AT is deserving of its own section to elaborate on issues that are exclusive to Indigenous peoples of British Columbia as a direct result of violent land dispossession that continues as a structure today. ⁵² Indigenous peoples encompass First Nations peoples, Métis peoples, and Inuit peoples who have ties to the land since time immemorial. ⁵³ In comparison to the rest of Canada, British Columbia is relatively young having entered confederation in 1871. However, it is the colonial ideal of land rights, access, and ownership that guides current land-use models in British Columbia. The combined differences in land connectedness with the continued impacts of colonization have created unique experiences for Indigenous peoples that requires a separate pathway to analyze how trails, active transportation, tourism, and the outdoor sectors continue to exploit Indigenous peoples on their sovereign, unceded territories. ^{54,55}

Free, prior, and informed consent (FPIC) is an important term that needs to be explored to explain how colonization is perpetuated in the modern day. FPIC stipulates that Indigenous peoples are provided with decision-making power for developments undertaken on their lands. This is an important component of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). In 2019, the Government of BC implemented the Declaration on the Rights of Indigenous Peoples Act (DRIPA) through Bill 41 which incorporates concepts that were pre-established with UNDRIP and applies them within a provincial context. This includes FPIC, which reinforces Indigenous peoples rights to self-determination and Aboriginal Rights

viii Titles of Ministries as of February 2021. See https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries

and Title.⁵⁶ Previously, establishments such as Provincial Parks have established parks and recreation sites without FPIC and have contributed to the dispossession of lands from Indigenous peoples.⁵⁸

It is crucial that FPIC is recognized and respected. Ignoring this constitutionally protected right and establishing trails or AT systems with the purpose to serve tourists perpetuates and advances colonization – by dispossessing Indigenous people from their lands and traditional usages of lands in order for those lands to be repurposed for settler-descendent peoples. For example, advertising campaigns promote travelling to different regions in British Columbia for the purpose of experiencing Indigenous cultures and learning about Indigenous traditional knowledge systems. This commodification of Indigenous knowledge is detrimental to decolonization and reconciliation efforts. As Indigenous Nations reclaim traditional knowledge systems, those systems must first be integrated by their own guidelines to advance their own needs and should not be prioritized for the sake of tourism and tourists. For example, advertising campaigns promote travelling to different regions in British Columbia for the purpose of experiencing Indigenous cultures and learning about Indigenous traditional knowledge systems, those systems must first be integrated by their own guidelines to advance their own needs and should not be prioritized for the sake of tourism and tourists.

Prior to colonization, trails were established in order to travel from region to region and to access areas throughout a nation's territory. Through the intrusion of settlers, trails were established during the advent of colonization as a result of fur traders entering British Columbia 2 and to exploit the resources and lands of Indigenous peoples. This was met with the establishment of railways, which increased the rate that settlers came to British Columbia to further exploit resources. These railways are now being repurposed as rail trails. Hail trails are emblematic of the dispossession of Indigenous peoples and the removal of Indigenous peoples from their lands. An example of this is the transportation of Indigenous peoples in BC to residential schools via rail. There is inherent trauma linked to these events. This intergenerational trauma is exclusively experienced by Indigenous peoples and is related to experiences of dispossession, attending residential schools, and the inherent intrusion of colonizers. Changing railways to rail trails does not rid Indigenous people's trauma linked to residential schools and land dispossession, which drives the need to consider AT within a decolonizing framework.

This section will explore these topics and how they are linked to trails and AT. More research needs to be done on these topics to understand this relationship and Indigenous experiences to AT. Additionally, more research needs to be done to explore how Indigenous peoples in British Columbia interact with and utilize active transportation within their daily lives, including whether the use is by choice or necessity.

WHAT DOES COLONIZATION LOOK LIKE IN TRAILS/CURRENT PROCESS?

The recreation sector directly benefits from the removal of Indigenous peoples from their lands.⁶⁷ Recreation allows for and reinforces the continued dispossession of sovereign, unceded Indigenous lands in this province so they can be repurposed for settler-descendent peoples. One of the key issues is when individuals travel throughout BC to explore, often disregarding they are on unceded, sovereign lands.⁵⁹ There is a responsibility for both the traveler/recreator and the organization who established the trail or network to clearly state that these trails are on sovereign, unceded Indigenous lands. Being able to traverse lands on these networks and explore new areas is a privilege that is made possible due to the dispossession and forced expulsion of Indigenous peoples from their traditional territories.⁵⁹ It is important to recognize this privilege, to acknowledge the territories a traveler is on, and how their outdoor activities may impede the lives of Indigenous peoples.⁵⁸

There are no Indigenous-led trail organizations in British Columbia. ⁶⁸ This means that there are no trail organizations that can advocate for Indigenous trail or AT establishment. There are already gaps in terms of AT infrastructure within Indigenous communities in comparison to their non-Indigenous counterparts, yet there is nobody present to advocate on their behalf. ⁶⁸ Without having an organization that can address Indigenous issues, within the context of trails and AT, then Indigenous voices are left unheard in this matter.

It is also important to integrate Indigenous perspectives and languages during the planning and development of trails and AT infrastructure. There are examples of this being successfully implemented, such as the čičmehán trail in Port Townsend, Washington.⁶⁹ In terms of implementing these types of projects, this will vary on a nation to nation basis: each nation will formalize strategies that work best for their communities. The čičmehán trail in Port Townsend is an example of both a trail and active transportation network that incorporates traditional knowledge systems as well as Indigenous history.⁶⁹ This was done in conjunction with the Jamestown S'Klallam nation and the municipality of Port Townsend by incorporating the traditional knowledge of the S'klallam peoples within the context of the čičmehán trail.⁶⁹

UNIQUE FACTORS TO CONSIDER

Indigenous peoples throughout Turtle Island have a distinct relationship with trails that are linked to colonization and intergenerational trauma because of the modes of colonization that were and continue to be employed on Indigenous peoples. An example of this is the historical relationship to the railway, which are often being repurposed into rail trails (commonly called rails-to-trails initiatives). The railway was implemented directly through the dispossession of Indigenous peoples when they were forcibly placed within reserves throughout Canada. Experiences related to railways vary by nation and individual, but there are cases where Indigenous children were transported to and from residential schools by the railway. This leads to intergenerational trauma that is directly linked to the railway and cannot be altered by simply repurposing these routes into trails.

It is important to note the hierarchy of issues within reserve communities within British Columbia and how this links to AT. Indigenous reserve communities have a variety of different factors that affect their wellbeing, such as housing,⁷¹ access to safe water,⁷² or health issues.⁷³ This can lead to spending more time and attention on addressing issues that affect their immediate health needs versus issues relating to active transportation and trails.

Barriers, Challenges, and Best Practices

Best practices are examples of solutions that have been implemented and have contributed to addressing a particular challenge. These challenges form general barriers, which can often be systemic. Equitable access to AT encompasses the cooperation of multiple agencies, governments, and organizations. As has been explored, the lack of rural-specific AT data has resulted in inferences from other literature and disciplines to better understand equity concerns. Best practices related to inclusion and equity must be conducted in an integrated and collaborative approach that has been explicitly prioritized by the organization or government. Although efforts should be done collectively leadership must emerge from within the organization or government to effect that change. In other words, an organization or government should not wait for others to address inequitable access to AT: actions can be taken to address issues that exist internally, whether those issues exist by intention or not.

There are four proponent groups of AT that have differing levels of responsibility and jurisdiction, with recognition that there are permutations of responsibility within these categories. The four groups are:

- 1. Organizations
- 2. Local government
- 3. First Nations government
- 4. Senior-level government (i.e., provincial and federal)

As summarized in Table 1, each proponent has key areas they should focus on. For organizations, the priority should be identifying internal policies, practices, and biases that prevent equitable implementation of advocacy or trail development efforts. This includes updating policies, educating staff and volunteers, and

actively engaging in participatory methods of consultation and engagement with mis- and under-represented groups. Local and First Nations governments should focus priorities on updating policies, processes, and bylaws to explicitly recognize the value and importance of active transportation in a community while simultaneously adopting intersectional analyses and a vertical distribution process of resources for AT infrastructure. Senior levels of government have two key priority areas to ensure equitable access to active transportation within the province. The first is to address systemic racism, anti-queer, and misogyny that exists within the various systems of policing, health, and within provincial government and transportation systems. The second is to increase supports to local governments, First Nations governments, and organizations to conduct local research and implement locally-developed solutions that address the unique needs of rural communities.

TABLE 1: PRIORITY AREAS OF FOCUS BY PROPONENT

PROPONENT GROUP	FOCUS
ORGANIZATIONS	 Identify and address internal policies that limit/prevent inclusion Adopt inclusion and diversity policies Update consultation and engagement practices
RURAL LOCAL GOVERNMENT	 Prioritize active AT in planning, policies, and by-laws Adopt intersectionality and a vertical distribution process for decision-making
FIRST NATIONS GOVERNMENT	 Prioritize active AT in planning, policies, and by-laws Adopt intersectionality and a vertical distribution process for decision-making
SENIOR-LEVEL GOVERNMENT	 Address systemic racism, anti-queer, and misogyny within policing, health, ministries, and planning Increase supports to rural local and First Nations governments to: Conduct research Implement locally-developed solutions

There are five barriers that impede equitable access to AT that have emerged from the research. Each of the barriers have various challenges. Table 2 presents a summary of the challenges associated with each barrier and identifies best practices to address them. The barriers are:

- 1. Safety & security concerns; safety concerns are the biggest barrier for all populations, but for mis- or under-represented demographics, this extends beyond infrastructure to include social and cultural concerns that impede individual feelings of security.
- 2. Lack of Indigenous considerations; the current processes of developing trails and active transportation networks are colonial and do not adequately consider unique Indigenous priorities and concerns.
- 3. Lack of representation; to address and develop programs, policies, or actions that reduce barriers, representation and internal policies that explicitly support inclusion, diversity, and welcoming environments must be a priority.
- 4. Limited capacity in rural areas; local governments and organizations in rural communities have significant capacity limitations that are complicated by additional jurisdictions to navigate.
- 5. Lack of data; for every segment considered, there is a lack of data.

SAFETY & SECURITY CONCERNS

Safety concerns consistently emerge as the number one barrier for an individual when choosing to use AT over other modes of transit. Typically, these safety concerns are viewed as a lack of adequate infrastructure within a community. This lack of infrastructure includes commonly known and promoted infrastructure solutions, such as separation from motorized traffic, sidewalks, improved lighting, and maintenance in the

winter. This infrastructure is often associated with a policy that seeks to reduce serious injury and fatalities of active transportation users, such as *Vision Zero*, an international project that aims to eliminate incidents. These initiatives can include actions such as updating motor vehicle legislation.^{ix}

Improving infrastructure particularly in rural communities, is necessary to address safety concerns however, these solutions are often driven by wealthier, white, and male-dominated cycling advocacy groups that fail to take in social, cultural, and individual security concerns. These recommendations overlook the intersecting factors that exist beyond physical infrastructure as a primary barrier. Systemic racism, misogyny, and phobic-driven aggressive behaviours create additional individual security concerns that are not necessarily addressed by installing a separate bike lane or reducing speed limits. To address the intersecting factors related to security, representation from mis- and under-represented groups must be included. Anti-racism and queer competency training for organizations, governments, staff, and users of active transportation networks would further work towards creating safer environments for all. This includes addressing systemic discrimination in associated sectors, such as policing, healthcare, and government planning departments.

LACK OF INDIGENOUS CONSIDERATIONS

The current process for working with First Nations in BC is underdeveloped and requires further review to adequately create equitable AT policies. There are no province-wide, Indigenous-led trails organizations and no local- or regionally-focused organizations in BC.* This creates an inference that all organizations are managed using a settler-focused process, which puts the onus on organizations' staff, volunteers, and Boards is to decolonize their own knowledge and processes first. In addition, the impact of trauma in relation to railway access and associated fatalities or injury have not been explored let alone addressed by organizations or governments.

A complicating factor with AT and First Nations communities is the systemic injustice that continues to pervade and is acutely noticeable in reserve communities. Trails and AT projects may not be welcomed as communities deal with housing crises, lack of safe drinking water, food insecurity, and other immediate health concerns.

Nonetheless, there are key takeaways that can facilitate improving governments or organizations working on AT projects with First Nations in BC. As organizations seek to develop AT infrastructure, there is a need to become active participants in decolonizing approaches to consultation and development. This needs to be done in unison with participating nations. As trails organizations are the people 'on the ground', it is crucial that both staff and Board become advocates for Indigenous rights and push for greater, more transparent, and improved relationship development and consultation processes. It is further recognized that internal policies must reflect an understanding of Indigenous rights and issues, such as the Truth and Reconciliation (TRC) Calls to Action, Missing and Murdered Indigenous Women and Girls (MMIWG) Calls for Justice, and the Declaration on the Rights of Indigenous Peoples Act (DRIPA).

LACK OF REPRESENTATION

^{ix} Vision Zero and reviewing the Motor Vehicle Act are actions that were put forth by *Move Commute Connect* and adopted by BC. These actions have not been explored within the scope of this research.

^{*} No BC-based Indigenous-led trails organizations were brought to the attention of the research team. Inquiries were made with Indigenous tourist organizations, trail builders, and other outdoor or trail building organizations.

As identified, many cycling advocacy groups are comprised of wealthier, white men and this homogeneity extends to outdoor recreation in general. The limited diversity leads to (1) general exclusion for individual participation, (2) systemic discrimination that perpetuates inequities through ill-informed policies or initiatives, and (3) the inequitable distribution of resources. These outcomes generate feelings of insecurity and social exclusion in individuals but can also lead to harmful outcomes, such as increased police presence in racialized neighbourhoods or ignoring vertical distribution of resources to groups that have greater needs.

To increase representation, creating truly inclusive environments that avoids tokenism is necessary. Inclusive environments are recognizably subjective; laying out a formula to create an inclusive space is not possible as that version of inclusion and safety will differ by individual and context. Developing relationships with people in those communities can assist in attracting representation.

Training, such as anti-racism, queer competency, and decolonizing knowledge, is an initial step. Internal policies that explicitly support inclusive goals and are supported by the resources and evaluations to meet those goals is another. Ultimately, governments and organizations must prioritize the desire for creating and maintaining a safe environment for others. This includes analyzing internal biases – at the individual and organizational level - that may be impeding the full participation of other demographics.

LIMITED CAPACITY IN RURAL AREAS

Rural communities face resource capacity limitations of staff, expertise, money, and services. For example, whereas having a city planner on staff is the status quo in major centres, often rural governments, including First Nations governments, will not have one. A planner is a major component in AT networks, as is staff to identify gaps or needs, apply for funding, coordinate agencies, and subsequently install infrastructure. Maintenance of infrastructure (including snow removal and upkeep of surfaces) is complicated by the distances required for inter-community travel, multiple jurisdictions to navigate, and the limited staffing or resources available.

Rural AT networks in BC must address safety concerns of inter-community travel along highways or single-option routes. Within a municipality, a less-busy thoroughfare may be an option for safe routes, however, for inter-community travel in rural areas, limited options combined with highway travel means AT users are routinely exposed to highway speeds and industrial traffic (e.g., logging trucks) without protective barriers.

Systemic issues of racism or anti-LGBTQ2S+ sentiments are amplified in rural communities due to fewer resources and a greater homogeneity within the population. The 'white gaze' may feel outright hostile when combined with target practice on social justice movement symbols, such as a sticker supporting the Black Lives Matter movement.

The limitations of rural communities are difficult to address without supports from senior governments. Whether creating an active transportation strategy or ensuring non-motorized routes exist for safe travel, additional funding and political will from provincial and federal governments are required. However, local governments and organizations do have the jurisdiction and capacity to prioritize elements related to inclusion, diversity, and the distribution of resources. This includes:

- Prioritizing inclusion and diversity literacy amongst staff and volunteers.
- Updating policies to explicitly recognize and value inclusion and diversity.
- Prioritizing active transportation within their own communities through bylaws, policies, and strategies.
- Working with neighbouring governments to improve communications and connect existing supports on a regional level.
- Prioritizing a vertical distribution methods of resource distribution to ensure high-needs areas and people have access to resources that currently exist.

LACK OF DATA

Underlying all the research is the recognition that there is limited data on equitable access to AT in rural BC or rural Canada, particularly in relation to mis- or under-represented groups. Information on participation rates is in aggregate form: it is presented as a summary of collected data. For example, in Move Commute Connect, the information is presented as a collection of their engagement process without identifying various demographics. There is no explicit mention of unique requirements, issues, or barriers to people of colour, gender, Indigeneity, or LGBTQ2S+. The solutions and identified actions are taken to apply to the entire population without recognizing the unique barriers and challenges that are faced by certain groups of people. In contrast, disaggregated data breaks down the information and allows for a deeper analysis that highlights issues pertaining to that population.⁷⁴ This report has yielded unique issues to different groups because of taking a disaggregated approach to interviews and seeking out voices of mis- and under-represented groups. An example of this has highlighted that past trauma associated with the imposition of railways may impact a First Nation reserve community's acceptance of a rail trail in or near their community. Additional resources are needed to adequately explore the themes and identify better-informed policies to work on increasing access, with an emphasis on both disaggregated data and ethical, trauma-informed research methods. In addition to equity concerns, traditional crash or incident data may not be reliable in rural settings due to a lack of reporting. This raises issues of effectively meeting the Vision Zero goal when inaccurate data is being relied upon. As one stakeholder stated, "without data, we can't see the truth". 11

TABLE 2: SUMMARY OF CHALLENGES AND BEST PRACTICES

BARRIER	CHALLENGE/ISSUE	BEST PRACTICE
SAFETY & SECURITY	Lack of separated routes for motorized/non-motorized users	Separated routes and paths for non-motorized transportation options
		Legislation that puts onus on driver responsibility
		Local government planning practices that prioritize AT planning and infrastructure
	Uncleared/unmaintained infrastructure, winter	Winter clearing on active transportation routes/paths is prioritized
		Guaranteed maximum accumulation on routes are set (e.g., 4 cm)
		Local government planning practices prioritize AT planning and infrastructure
	Unmaintained infrastructure, general	Upgrade and repair surfaces
		Upgrade and maintain lighting

BARRIER	CHALLENGE/ISSUE	BEST PRACTICE
		Operations prioritize AT planning and infrastructure with operations
	Harassment, racism, and other aggressive behaviours	Incident responders have competency training
		Workplaces and organizations have competency training
		Existence of accessible and suitable end-of-travel infrastructure (e.g., bathrooms)
		Zero-tolerance policies at workplaces
		Visible anti-racism, queer supports, and inclusion policies at trail heads or other primary pathways
LACK OF INDIGENOUS CONSIDERATIONS	Leaving a community worse off prior to trail establishment	Engage with community members to establish networks, from planning to construction
	Lack of proper maintenance leads to disrepair and trail/network erosion	Train community on proper maintenance of network
		Adequate funding for repair and maintenance
	Indigenous nations asserting their rights and title to steward own land	Frame AT networks as a process to reclaim rights and title
		Nation-led process of planning and development (e.g. through Indigenous Protected and Conserved Areas)
		Traditional knowledge embedded in process
	No Indigenous-led active transportation or trail organizations in BC	Indigenous-led trails or AT organizations
	Inadequate consultation process and general lack of knowledge of title and sovereignty	Organizations and governments are educated on FPIC
		Organizations and governments are educated on land-use rights, title, sovereignty, and unceded lands

BARRIER	CHALLENGE/ISSUE	BEST PRACTICE
	Lack of knowledge on Indigenous issues	Organizations and governments are educated on historical and contemporary injustices Organizations and governments are educated on issues related to intergenerational trauma Organizations and governments have adopted recommended policies from TRC, MMIWG, and DRIPA
	Commodifying traditional knowledge systems within trails or AT networks for tourism purposes without adequate participation from nations	De-emphasis of tourism as the focus for trails and AT development Participatory planning process that explores tourism Traditional knowledge systems are prioritized as an education-sharing opportunity over tourism
	Presenting a community with a trail plan	Decision-making processes and powers are participatory and empower community residents Nation sovereignty and title rights are respected Community develops plan(s) that address their needs, as they identify them Recognition that relationship-development is a process to evolve
LACK OF REPRESENTATION	Advocacy groups not representative of general population	Organizations and local governments adopt diversity goals Organizations and local governments engage with mis- and under-represented groups
	Advocacy efforts perpetuate inequities	Organizations and governments conduct outreach to mis- and under- represented groups for participation in policy development

BARRIER	CHALLENGE/ISSUE	BEST PRACTICE
		Organizations and governments acknowledge and address inequities in advocacy
	Internal policies, processes, or biases discourage inclusive and safe environments	Internal policies, processes, and biases are identified that discourage participation
		Adoption of policies and processes that support anti-racism, queer competency, and zero harassment
LIMITED CAPACITY IN RURAL COMMUNITIES	Lack of AT infrastructure	Governments prioritize AT infrastructure investments
		Local governments update planning practices to prioritize AT planning and infrastructure
	Lack of maintenance on existing infrastructure	Governments prioritize maintenance on AT infrastructure
	Multiple and complicated jurisdictions	Government or organization develop AT plan to identify areas of potential conflict, weaknesses, or difficulties
		Governments and organizations work collaboratively with neighbouring communities
	Lack of expertise on staff	Local government staff has active transportation experience and knowledge
		Local government and organizational staff have experience and knowledge about inequities in active transportation
	Limited non-motorized routes for AT options due to highway patterns and routes	Investing and protecting alternative, non-motorized routes (e.g. rail trails)
	Feelings of hostility towards mis- and under-represented groups	Mis- and under-represented groups in rural communities feel safe and welcomed by groups and governments
		Community members and organizations are educated on antiracism, anti-queer, and misogyny, particularly in relation to outdoor spaces and AT (e.g. trails organizations)

and welcomed (e.g. rainbow stie on business window) LACK OF DATA Limited to no data on active transportation in Canada for: Rural communities and welcomed (e.g. rainbow stie on business window) Disaggregated data is supported shared	BEST PRACTICE
transportation in Canada for: shared Rural communities	Safe spaces initiatives are supported and welcomed (e.g. rainbow sticker on business window)
Indigenous communities LGBTQ2S+ communities Diverse abilities Gender People of Colour	Disaggregated data is supported and shared

Conclusions and actions for organizations, local governments, or Senior Governments

Using intersectionality, this research analyzed the barriers to equitable access of active transportation in rural BC through a literature review and stakeholder interviews. Barriers to equitable access of AT in rural BC are complex and need to be considered from an integrated perspective.

Although ample research has been done to assess rates of cycle commuting, it has largely been conducted within the perspective of the white, able-bodied, income-secure male. That is, studies consider cycling rates from home to work and how to improve those participation rates. While a lack of safe infrastructure and associated concerns of safety are cited as primary barriers, when analyzing using intersectionality, questions related to harassment, racism, and anti-queer sentiments arise that impact individual security concerns. These issues are systemic and can be seen in the distribution of resources within the transportation system in general. For rural communities, these hurdles become more challenging to address due to limited resources and capacity. For inter-community travel, the distances to install new infrastructure and then maintain that infrastructure is complicated by greater distances and multiple jurisdictions to navigate.

Intersectionality allowed the review of various other indicators related to inequity and AT. Drawing on alternative disciplines, including health, social justice, and Indigenous issues, barriers emerged in five key themes. The themes are:

- 1. Safety and security concerns
- 2. Lack of Indigenous considerations
- 3. Lack of representation
- 4. Limited capacity in rural communities
- 5. Lack of data

There are four primary categories of responsibility with varying levels of jurisdiction and legal reach. Although all should work collaboratively for best results to improve equitable access, ultimately, leadership must emerge from within to achieve results. Each category has key areas they should focus on. They are:

1. Organizations; focus on internal policies and practices to improve inclusion and diversity.

- 2. Rural local governments; prioritize AT planning and infrastructure using intersectionality and a vertical distribution method for decision-making.
- 3. First Nations governments; prioritize AT planning and infrastructure using intersectionality and a vertical distribution method for decision-making.
- 4. Senior-level governments (i.e., provincial and federal); address systemic racism, anti-queer, and misogyny while also increasing supports to local, rural, and First Nations government to understand the issues and develop solutions.

There are various challenges associated within each barrier, with ample cross-over that can have compounding effects on various groups. The best practices that were identified are multi-faceted, dependent on resource availability, and will have various permutations based on whether it is being addressed from a government level, individual volunteer, or as an organization. Flexibility, localized need, and integrated approaches are core concepts to keep in mind for implementation of potential solutions. Although efforts should be done to collectively address barriers, leadership must emerge from within an organization or government to effect that change. In other words, an organization or government should not wait for others to address inequitable access to AT: actions can be taken to address issues that exist internally, whether those issues exist by intention or not.

There is a dearth of research on equity and AT, even less that is based in Canada. As noted, most of the research has focused on cycle-commuting rates for work, which limits multiple other standpoints related to AT, including mobility issues, patterns of travel, and personal security questions. There is a much-needed response from governments and organizations to actively support work with mis- and under-represented groups to better refine solutions.

Table 3 outlines actions available to governments and organizations, identifying which barrier the action will help alleviate and whether the action is best suited to an organization, First Nation government, local government, or senior government (provincial or federal). None of these actions will individually address all barriers to every group and local engagement and research is required to address solutions both locally and systemically. The actions will have variations as they span the spectrum of an individual action within the capacity of an organization (e.g. adopt diversity goals) or a legislative change that should be led by senior government (e.g. mandate diversity goals) but could be supported by advocacy at the organizational or local government level. Table 3 should not be considered an exhaustive or static list. As more research emerges, these actions should be refined and targeted to individual groups, organizations, or communities.

TABLE 3: ACTIONS FOR ORGANIZATIONS, LOCAL GOVERNMENTS, OR SENIOR GOVERNMENT

BARRIER	ACTION	ORG.	FIRST NATION	LOCAL GOV'T	SENIOR GOV'T
SAFETY & SECURITY	Mandate priority funding for AT projects that separate motorized users from non-motorized users		X	X	X
	Mandate AT infrastructure in all transportation projects				X
	Legislate anti-racism and queer- competency training for policing and healthcare systems				X

BARRIER	ACTION	ORG.	FIRST NATION	LOCAL GOV'T	SENIOR GOV'T
	Mandate staff and volunteers undergo anti-racism and queer- competency training	X		X	X
	Legislate protections for non- motorized access routes				X
	Increase penalties for motorized use on non-motorized routes		X	X	X
	Adopt bylaws and policies that prioritize snow-clearing and maintenance of AT infrastructure		X	X	
	Adopt inclusion and zero-tolerance policies	X	X	X	X
	Adopt vertical distribution of resources that prioritizes and supports mis- or under-represented groups	X	X	X	X
LACK OF INDIGENOUS CONSIDERATIONS	Increase and prioritize funding for rural bands and reserve communities for planning, building, and maintaining of AT infrastructure				X
	Legislate that all AT projects integrate traditional knowledge systems				X
	Support development of Indigenous-led trails organization		X		X
	Adopt new trails consultation procedures	X	X	X	X
	Educate staff and volunteers on Indigenous issues (e.g. land, title, trauma)	X		X	X
	Adopt TRC Calls to Action, MMIWG Calls to Justice, and DRIPA	X			
LACK OF REPRESENTATION	Adopt and post policies that support anti-racism, queer competency, and decolonization	X	X	X	X
	Mandate diversity goals	X	X	X	X
	Promote community-led efforts of inclusive trails-related activities	X	X	X	X
	Mandate participatory engagement practices with mis- and under-represented groups for AT infrastructure	X	X	X	X

BARRIER	ACTION	ORG.	FIRST NATION	LOCAL GOV'T	SENIOR GOV'T
	Adopt vertical distribution of resources to support increased participation	X	X	X	X
RURAL CAPACITY LIMITATIONS	Adopt AT as a priority within bylaws and planning process (e.g. Official Community Plan)		X	X	X
	Legislate highway routes have non- motorized, off-highway routes				X
	Increase supports for AT projects that cross multiple jurisdictions				X
	Increase funding for planning, building, and maintaining of infrastructure		X	X	X
	Develop AT plan		X	X	X
	Adopt intersectional analyses for decision-making process	X	X	X	X
DATA	Collect participation rates based on all trip types that break out (disaggregated data): Indigeneity People of colour LGBTQ2S+, including gender Socio-economic status	X	X	X	X
	Following ethical research guidelines, conduct trauma-informed research to understand unique barriers and experiences of: Indigenous peoples People of colour LGBTQ2S+ Socio-economic groups	X	X	X	X
	Conduct research to understand socio-economic impacts on choice, including access to equipment	X	X	X	X
	Conduct rural-specific incident reporting data	X	X	X	X

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