Queen's Policy Review

Canada at 150 and Beyond:
Charting Progress and Emerging Challenges

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Letter from the Co-Editors-in-Chief: Charting Change amidst the Canadian Sesquicentennial

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On July 1, 2017, Canada celebrated 150 years of Confederation. Yet, despite the progress that has been achieved since 1867, many of the same public policy challenges that faced the Canada of yesteryear continue to impact the Canada of today. At the same time, policymakers are faced with new challenges influenced by social, environmental, technological, and economic change. These longstanding and emerging public policy issues are explored in this year's issue of the *Queen's Policy Review*, which we hope will inform, and encourage reflection and discussion among policy wonks.

This year's issue opens with an exploration of the continuing challenges faced by some of Canada's most marginalized voices. For Canada's Indigenous peoples, the Canadian Sesquicentennial also marked more than 150 years of colonization and a celebration that overlooked the presence of Indigenous communities long before this period. Due to this legacy, Canada's Indigenous peoples were one of the last groups to receive the vote, with those on reserves not allowed to vote until 1960, and remain one of the groups with the lowest voter turnout. Joshua Shapiro's briefing note discusses some of these challenges and poses options to improve the political participation of Canada's Indigenous peoples. While strides have been made to recognize and protect the rights of Canada's LGBTQ+ community, Leanne Letourneau demonstrates how Quebec's conceptualization of domestic violence excludes and renders different lesbian experiences invisible despite lesbians' inclusion as vulnerable population in Quebec's Action Plan on Domestic Violence.

On the economic front, the changing nature of work and low economic growth in Canada has resulted in increased employment insecurity and income inequality which is making more and more people vulnerable, and unable to make ends meet or save for the future. Dajean Lacasse highlights these issues in her analysis of the federal government's proposed reforms to the Canada Pension Plan, and the implications for workers and the middle class once they reach retirement. Robert Catherall also explores similar issues in his examination of the socio-economic, health and legal impact of increasingly precarious employment and housing on those living in Vancouver. Just as shifts in the economy can effect labour and housing, Don Couturier highlights the vulnerability and socio-economic impact of relying on resource extraction in his examination of the precarious financial landscape in the Northwest Territories, offering recommendations to ensure the territory's long-term economic development and sustainability that includes working with Indigenous governments and technological innovation.

Advancements in technology have played a central role in Canada's development and will certainly continue to shape Canada's future. Just as the railway drove Confederation forward linking Canada's regions and people with one another, new forms of technology are becoming increasingly integrated in people's everyday lives which can be seen more and more in the realm of healthcare. In their respective papers, Molly Graham, Melanie McPhail, and Scarlett Kelly each explore the impact and potential uses of emerging technology in transforming health care and improving patient outcomes. In her paper, Molly Graham examines the broader economic, environmental and cultural security benefits of telehealth in Canada's northern and remote communities. Just as telehealth

technology can connect people in different regions with each other, social media has done the same and has become so pervasive in everyday life to be able to influence policymaking and deliver healthcare services. Melanie McPhail examines the role of patient advocacy groups and their use of social media platforms to implement changes in health policy related to Lyme disease, while Scarlett Kelly explores the possibilities of using social media to inform physician-patient communications in order to improve the quality of online health information and health outcomes. In addition to technology, climate change is a key policy action area for Canada and can influence health outcomes. Nicole Spence's paper on emergency health management demonstrates how climate change-induced natural disasters are intimately tied to public health outcomes and health inequities.

Between producing this year's journal and organizing a special policy conference around the Canadian Sesquicentennial, it has been a busy and rewarding year for the *Queen's Policy Review*. On behalf of the *Queen's Policy Review* team, we would like to thank all the authors who submitted papers, and the editors and faculty of the School of Policy Studies for their time and assistance throughout the year. We would also like to take this opportunity to thank the School of Policy Studies with whose support the "Canada at 150" policy conference was possible. Thank you to all that presented and attended, and made it a great success. A special thanks to our faculty moderators, and our keynote speakers, Frank Graves and Victor Rabinovitch.

Finally, on behalf of the *Queens' Policy Review* team and the Master of Public Administration class of 2017, we would like to dedicate this year's issue to the memory of our professor, David Elder, whose enthusiasm and commitment to the School of Policy Studies and its students was truly inspirational and will be sorely missed. We will carry your lessons throughout our careers.

Stimulating Aboriginal Electoral Participation: What Can Be Done to Foster the Political Engagement of Aboriginal People?

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"Politicians don't court our vote because we don't vote, and we don't vote because they don't show interest in us."
–Wab Kinew, Director of Indigenous Inclusion, University of Winnipeg (Kielburger, 2014)

Introduction/Problem Definition

One of the most crucial challenges for today's democracies is to properly represent *all* of their citizens, by diminishing inequalities in political participation. Canada's colonial history has had lasting effects in marginalizing Aboriginal people, and has resulted in a tremendous underrepresentation of Aboriginals in electoral participation. Low voter turnout rates among Aboriginal people are an enduring phenomenon (Ladner and McCrossan, 2007: 26), exacerbated by the fact that large proportions of this population are socially and geographically isolated and of low socioeconomic status. There are concerns that such underrepresentation threatens the legitimacy of Canada's electoral system, and "sustains a very tenuous relationship between Aboriginal and non-Aboriginal Canadians" (Hunter, 2003: elections.ca). Elections Canada has voiced concern that this "disengagement from the democratic process" is unhealthy for the people of our country (Howe and Bedford, 2009: elections.ca); in fact, electoral participation can be seen as a "litmus test" for the validity of the democratic system (Fournier and Loewen, 2011: 9). The goal in prescribing the following policies is to mobilize Aboriginal people to vote in elections, but also to encourage them to become all-round politically active citizens.

Background

Aboriginal people were the target of colonialism, subjugated by a power that ignored their rights, including their rights to self-govern and participate in the electoral process. True universal franchisement was not complete in Canada until 1960, when Prime Minister Diefenbaker passed voting rights legislation, which extended voting rights to all Aboriginals (2010: cbc.ca). More recently, the federal government passed the Fair Elections Act (2014), which will likely hurt Aboriginal turnout, because the bill makes it harder for citizens without complete identification to vote. Many Aboriginals fought the bill, criticizing it for putting up further barriers to participation, wondering whether the real intent of the bill is "to actually limit Aboriginal voting [in future elections]" (Canadian Press, 2014: cbc.ca). Today, "a concerted effort is being made by government agencies to encourage electoral awareness and participation among Aboriginal people" (Ladner and McCrossan, 2007: 31).

Although Aboriginal electoral participation is difficult to measure and the data are quite limited, it is clear that the turnout of Aboriginal people at elections for all levels of government (including municipal) is well below the national average (Guérin and Hunter, 2003: elections.ca). For example, in an analysis of Aboriginal turnout in the 2000 federal election, Elections Canada concluded that Aboriginal

participation was significantly lower than that of the general population (Guérin, 2003: elections.ca). They found a turnout rate of "47.8 percent - 16 percent lower than the turnout among the general population during the same election", and that certain provinces, including Quebec, had even lower turnout.

Elections Canada also reported lower Aboriginal turnout for the 2000 election and the latest elections at other levels of government (Howe and Bedford, 2009: elections.ca, see figure).

Figure 1: Reported voter turnout, Aboriginal and other

■ all others (Min N=19,344) ■ rural Aboriginal (N=236-246) ■ urban Aboriginal (N=356-395)
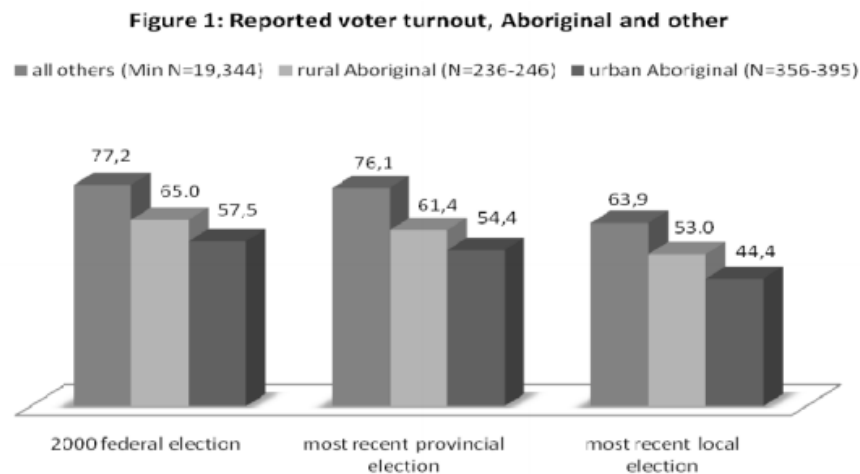
Source: General Social Survey 17, 2003, from Howe and Bedford, 2009: elections.ca

In the 2011 federal elections, which had a national turnout rate of 61 percent, Elections Canada found that "less than 45 percent of eligible First Nations voters on reserves had cast a ballot"; had they voted at the national rate, they allegedly "might have changed the results in as many as 14 ridings" (Kielburger, 2014: weday.com). Other studies confirm that even when controlling for other variables that predict political participation, such as socioeconomic status, there is still a significant gap between the turnout rates of Aboriginals compared to others (Howe and Bedford, 2009: elections.ca).

There are numerous explanations for why Aboriginal people do not vote, including the rational voter model which is the idea that the costs of voting often outweigh the potential benefits, and this is responsible for turnout (Gludovatz, 2014: civicgovernance.ca). Some Aboriginals also identify with their ancestral nationality more than with their country, which can make Canadian elections seem foreign (Howe and Bedford, 2009: 9-10). Feelings of alienation and distrust are often studied as explanatory factors in low turnout.

Many Aboriginal nations see self-government as an inherent right, and feel that electoral participation may be in contradiction with this belief (Howe and Bedford, 2009: 7). This makes all Canadians stakeholders in this problem, as a failure to solve it will likely lead to further calls for Aboriginal self-government and thus threatens a dissolution of the country.

Policy Option 1: Aboriginal Level of Government

Aboriginals are most likely to vote if they are given a government that they can trust, one which will properly represent them and cater to their needs. In 1996, the federal government's Royal Commission on Aboriginal Peoples proposed the establishment of a third level of government (RCAP, 1996). This is a solution that some Aboriginals themselves have concluded is the only acceptable option (Inwood, 2013: 170). Although giving Aboriginals certain distinct jurisdictions would incentivize them to vote, it has been called "utterly impossible to implement" (Brean, 2013: nationalpost.com). In addition to the numerous practical challenges of reorganizing the Canadian political system, the Constitution does not allow for it, and our government's capacity would be severely inhibited by adding another level.

Policy Option 2: Education

A policy that could be expanded upon and improved is educational programming for Aboriginal people, some of which has been put in place by the Canadian government. The government currently facilitates access to university education[1], but there is a need for the government to increase civic education for youth (through formal curriculum and extracurricular activities), to foster democratic attitudes and stress the importance of voting. Education is an important facilitator of political engagement, and is proven to be one of the most determinant factors of political behaviour, but the fact that many of these policies are already in place leads us to believe that education is failing to mobilize Aboriginals. Though it is possible that education will spur political participation beyond just voting, its effects may not be lasting, thus we look for a policy option which can guarantee greater rates of turnout.

Policy Option 3: Incentivizing Aboriginals to Vote

In accordance with the rational voter model, a policy to encourage Aboriginal voting should either increase the benefit or eliminate the costs of voting for them. The government already provides other incentives to Aboriginals to participate in society, (such as incentives to enrol in post-secondary education,) though there are associated costs; non-Aboriginals sometimes perceive unfair generosity towards Aboriginals, which could further alienate them. This policy is unlikely to legitimize the government in the eyes of Aboriginal people. Nonetheless, it may improve trust issues, as it shows that the government does indeed care for them. Though the incentive needs to be somewhat substantial in order to work, making the policy expensive, the same can be said of reorganizing the government, or increasing schooling funds for Aboriginals.

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[1] Through programs like the Post-Secondary Student Support Program (PSSSP, aadnc-aandc.gc.ca)

Recommendations & Implications

Policy Option 3: Incentivize Voting

After analyzing each option, it is determined that the government should offer incentives to Aboriginal voters, in the form of either coupons, gift cards, or tax rebates, for which voting receipts can be given at polling stations. Perhaps the greatest aspect of such a policy is that incentivizing voting is almost guaranteed to improve turnout rates. It is found in experiments to work (Carter, 2015: bloombergview.com). For example, an experiment showed that "paying cash rewards of $25 raised turnout in a municipal election from 15 percent to 19 percent", a significant amount. Next, initiatives based on similar logic to encourage political participation have worked in the past, such as tax credits for donating to political parties, and countries fining citizens for not voting (e.g. Australia). As well, unlike this Australian strategy, incentivizing voting does not infringe individual liberty (Somin, 2015: washingtonpost.com). Notable scholars[2] have suggested paying citizens to vote, and a study conducted at Princeton University shows that incentivized voters were not only more likely to participate, but were more likely to be politically informed (Tucker, 2011: prospect.org). In other words, once prospective voters are indeed going to vote, they take the necessary time to make informed decisions. Thus, this policy has the potential to raise interest in politics among Aboriginals, and even spur political participation beyond voting.

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[2] Such as Stephen L. Carter, Professor of Law at Yale University (Carter, 2015: bloombergview.com)

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Lesbian Invisibility in Quebec's Domestic Violence Policy

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ABSTRACT

Lesbians are listed as one of the vulnerable populations in Quebec's Action Plan on Domestic Violence; however, simply naming lesbians in the action plan does not contribute to understanding the different ways they may experience domestic violence. The application of an universal heterosexual framework of domestic violence that is adapted for vulnerable populations not only renders invisible any experiences that do not fit within the existing framework, but also fails to consider that 'vulnerable populations' are not homogeneous groups. The intersectional analysis I apply to Quebec's Action Plan on Domestic Violence (2012-2017) exemplifies the ways that the Action Plan prioritizes cisgender heterosexual women as the primary axis of oppression, therefore, resulting in a conception of domestic violence that is not inclusive of all experiences of domestic violence. For example, not only does my analysis illuminate the invisibility of lesbians collectively in the Action Plan, but also the invisibility of different experiences of domestic violence among lesbians. Incorporating intersectionality into domestic violence policy, and public policy in general, will highlight these exclusions and help find policy solutions to address the needs of all individuals. Therefore, this paper will contribute to addressing the limited use of intersectionality in policy, and emphasize the need for intersectional policy analysis to be further explored and developed.

Introduction

Public policy does not represent the different experiences of all populations. For example, domestic violence policy is often based on a heterosexual framework that assumes a man/woman relationship where the man is typically depicted as the perpetrator, and the woman the victim (Russo 2001, 60). However, this does not reflect reality since heterosexual relationships are only one type of relationship, and by constructing domestic violence in this way it becomes invisible in same-sex relationships (Dempsey 2011, 390). Considering Canada's increasing diversity, it is important that public policy move beyond this type of universal policy to represent all Canadians and their experiences. An intersectional policy analysis is one tool that will help identify how difference is excluded. Therefore, in this paper, I will apply Hankivsky et al.'s (2012b) intersectional-based policy analysis (IBPA) framework to Quebec's Action Plan on Domestic Violence (2012-2017)[1] to expose how the Action Plan renders lesbian[2] experiences invisible. This analysis will highlight that simply listing lesbians as a vulnerable population is insufficient for visibility because their experiences need to be acknowledged and understood.

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[1] May be referred to as the policy or domestic violence policy. When I refer to the original 1995 policy, I will indicate this.

[2] Lesbian will include all self-identified women who are physically and/or emotionally attracted to other women.

Why Lesbians?

The LGBTQ+ (lesbian, gay, bisexual, transgender, and questioning/queer) community encompasses a multitude of identities. I do not think that analysing everyone who fits under this will adequately incorporate the diverse experiences and complexities that exist. Using lesbian as an umbrella term itself is a risk of universalizing the experiences of domestic violence; however, I chose this population for my analysis because of my own commitment to improving the lives of all lesbians (as an umbrella term) in Quebec. It should be noted that even though I use the term "lesbian" inclusively, the majority of existing literature on lesbian domestic violence is based on the experience of white lesbians (not as an umbrella term) and bisexual women. Therefore, the literature should not be interpreted as inclusive of all lesbians.

Why Quebec's Domestic Violence Policy

Most literature on lesbian domestic violence fails to address domestic violence policy. The literature focuses on identifying possible reasons why domestic violence happens (West 2002, 124) and the different types of abuse (Irwin 2008, 207), as well as responses by professionals (Banks and Fedewa 2012, 199; Donovan and Hester 2014, 172; Poorman 2001, 13), by the lesbian community (West 2002, 122), and by family and friends (Giorgio 2002, 1241; Irwin 2008, 210). There is literature on barriers to reporting (Brown 2008, 460; Donovan and Hester 2014, 157), and the effects of gender stereotypes on lesbian domestic violence (Brown 2008, 459; Hassouneh and Glass 2008, 316; Little and Terrence 2010, 430-431), but there is a limited amount of literature that examines domestic violence policies to determine the level of lesbian invisibility in the policy, reasons for this invisibility, or how invisibility in the policy likely impacts those who experience domestic violence. This is the gap I intend to address.

I chose Quebec's Action Plan on Domestic Violence because of Quebec's history of including the LGBTQ community in its policies, dating as far back as 1977. It was the first Canadian province to include sexual orientation as a prohibited ground of discrimination in its human rights legislation in 1977 (Hurley 2005, 4); it created civil unions, a type of relationship similar to marriage and inclusive of same-sex couples in 2002 (6); it legalized same-sex marriage in 2004 (10); and in 2008 the Quebec Government assigned the Minister of Justice the responsibility to fight homophobia in Quebec (Quebec 2013). This led to the creation of Quebec's Policy against Homophobia and subsequently, the Action Plan. Given that the Quebec government has made considerable efforts to include the LGBTQ community both legally and socially, analyzing Quebec's Action Plan on Domestic Violence is an opportunity to determine if relationship problems such as domestic violence, are given the same attention in same-sex couples as it is in heterosexual couples, or whether policy inclusion is merely a symbolic act.

Quebec's Domestic Violence Policy

Quebec's current Action Plan on Domestic Violence (2012-2017) is an extension of the original

1995 domestic violence policy. The original policy was created to coordinate all sectors involved in domestic violence so that they could work together (Quebec 1995, 11). In addition to nine guiding principles (30), there were also four focal points for intervention: prevention and promotion, detect situations of violence, implement special measures for First Nations and Inuit, and adapt for special clientele, and finally, intervene (32). These focal points and guiding principles remain central in the current Action Plan (2012-2017), which now further includes one hundred measures to combat domestic violence in the general population, and thirty-five measures directed towards the Aboriginal community[3] (Quebec 2012, Message from the Ministers). Additionally, the policy offered services to individuals in isolated areas, and adapted their services to meet the needs of certain populations, such as the elderly, Aboriginal people, gays and lesbians, cultural communities, people with a disability, and abused men (Quebec 1995, 15). Since these groups are among those listed in the current Action Plan, and lesbians may intersect in one or more of these groups, intersectionality will be useful in identifying their different experiences of domestic violence.

Intersectionality

Intersectionality and Policy

Intersectionality recognizes that individuals are more than single categories (race, gender, sexuality, age, ability) and locations, but are mutually constituted by social processes and institutions that are shaped and influenced by power (Hankivsky et al. 2012b, 17-18). If these intersections are not acknowledged in domestic violence policy, domestic violence will continue to be perceived as a heterosexual problem. This perception is evident in Quebec's domestic violence policy where cisgender women are implicitly the primary axis of oppression, therefore, constructing domestic violence as violence inflicted by men on women, and rendering anything outside of this either invisible or marginal. Intersectionality can change this perception in policy because it has the potential to ensure visibility of all types of domestic violence by challenging the gender inequality perception of domestic violence (Bograd 1999, 277), questioning power hierarchies (Lombardo and Agustin 2016, 365), acknowledging that individuals are shaped by various intersections (Hankivsky et al. 2012a, 18) and by identifying who benefits and who is excluded from policy (8).

Despite the potential of intersectionality to address other domestic violence realities in policy, there is little existing literature on domestic violence policy and intersectionality that addresses lesbian experiences. Most of the literature depicts domestic violence as a heterosexual problem, primarily looking at the intersections of gender, class, and race, while either 'naming' sexual orientation with little or no further discussion, or simply not mentioning sexual orientation (Lombardo and Agustin 2016; Nixon and Humphreys 2010; Strid et al. 2013). Dempsey (2011) is one of the exceptions; he illustrates that same-sex domestic violence is made invisible by gender-based approaches to domestic violence

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[3] Due to space restrictions, I did not include my analysis of Aboriginal people, however, I did analyse this section and there was no mention of sexual orientation.

(390), and that there are consequences of this invisibility, such as lack of access to services (389). This demonstrates that intersectionality is needed to move beyond a heterosexual framework in domestic violence policy to illustrate the diverse ways lesbians experience it.

The Intersectional-Based Policy Analysis (IBPA) Framework

The intersectional-based policy analysis (IBPA) framework was developed to address health inequities at the policy level. However, according to Hankivsky et al. (2012b), the framework can be applied to any policy. There are two components to the framework: a set of guiding principles, and twelve questions to help guide the analysis (Hankivisky et al. 2012b, 34). The questions consist of two categories: descriptive and transformative. Descriptive questions are meant to gain background information regarding the policy problem and who it impacts, while transformative questions are directed towards finding equitable solutions to the problem (34). The guiding principles of the framework include intersecting categories, multi-level analysis, power, reflexivity, time and space, diverse knowledges, social justice, and equity. Following these guiding principles will ensure the analysis is intersectional, and therefore, in the best position to reduce inequities in the policy.

The remainder of my paper will be divided into six different sections, with each section guided by questions from the IBPA in order to interrogate the ways that lesbian domestic violence is invisible in the policy.

Analysis

What is the Policy 'Problem' Under Consideration?

What Assumptions Underlie this Representation of the 'Problem'?

The "problem" addressed in the policy is domestic violence, and is understood as violence inflicted by men on women. This is implied when the policy states that "gender equality is the primary condition for the elimination of domestic violence" (Quebec 2012, 2). Donovan and Hester (2014) contend that the 'main' understanding of domestic violence has a victim/perpetrator dichotomy that is influenced by gender norms (161). This determines not only the identity of the victims (women), and the perpetrators (men), but how each will look. For example, women are expected to be dependent, nurturing, and passive, whereas men are expected to be assertive, autonomous, and less caring; therefore, these expectations create the victim/perpetrator dichotomy (Little and Terrence 2010, 431). These assumptions are what they call the "public story" of domestic violence (Donovan and Hester 2014, 161).

How Have Representations of the 'Problem' Come About?

The "public story" of domestic violence emerged because of feminist activists (Donovan and Hester 2010, 281) who raised awareness about women's abuse. Through their efforts, domestic violence

changed from something that was considered a "private matter" to a "criminal matter" and legislation over the years both federally and provincially has changed to reflect this (Department of Justice 2002, 2). Naming the violence has changed historically, and has included the following: wife abuse, wife assault, violence against women in relationships, spousal abuse, and partner abuse (Department of Justice 2002, 1). Regardless of how domestic violence was named, the implication remained that women were the victims, and this remains true today despite efforts to de-gender abuse, as evidenced by the term "intimate partner violence."

How are Groups Differentially Affected by the Representation of the 'Problem'?

The current representation of domestic violence makes it more difficult to "recognize" the problem in lesbian relationships. The primary reason is that the 'public story' is based on heteronormative assumptions. Heteronormativity normalizes heterosexuality through institutionalization (Jackson 2009, 150) where the male/female dichotomy plays a central role (Donovan and Hester 2014, 59; Jackson 2009, 149), such as marriage and family policy. Policies that are based on the heterosexual family are more likely to be heteronormative (Smith 2007, 100), thus perpetuating heterosexual ideals, and resulting in the presumption that everyone is heterosexual (Donovan and Hester 2014, 59). This presumption of heterosexuality is further maintained through every day actions such as the way individuals dress, and act (Jackson 2009, 153). It is these heteronormative assumptions that result in gender stereotypes that render invisible any domestic violence that deviates from what is expected. This is problematic for recognizing lesbian domestic violence, both within lesbian relationships (Donovan and Hester 2010, 284; Hassouneh and Glass 2008, 316), and in having it acknowledged by service care providers outside of the relationship (Little and Terrence 2010, 430; Ristock 2002, 97).

What are the Current Policy Responses to the 'Problem'?

Do current policies focus on target groups?
The policy 'others' particular groups by listing them as more vulnerable to domestic abuse, and therefore, target populations. The groups targeted as 'vulnerable' in the current Action Plan include: Aboriginals, elderly women, women with a disability, immigrant women, women from cultural communities, lesbians, gay, bisexual, transsexual and transgender women as well as male victims (Quebec 2012, Message from the Ministers). This is problematic because it constructs domestic violence as 'different' in any groups that are not the dominant norm. It is a way of excluding them, and by indicting they need the measures in the policy to be "adapted" (Quebec 2012, 6, 11) to their realities, it is implying that they are not "the same." This is different from arguing that a different understanding of the experiences of domestic violence in "vulnerable" populations is necessary. The former is a way of exclusion by dominant sources of power, and the latter is being inclusive by recognizing their needs and experiences are different. This can be further explained using Iris Young's (1990) concept of cultural imperialism.

According to Young (1990), cultural imperialism means to "experience how dominant meanings of society render the particular perspective of one's own group invisible at the same time as they stereotype one's group and mark it out as the other" (58). Invisibility results when the dominant group fails to incorporate the experiences of others, and marginalizes them instead. They become "deviant in relation to the dominant norm" (123). Therefore, a universal policy that is meant to apply to everyone, according to Young (1990), or in the case of Quebec's domestic violence policy, "adapt" to the realities of the "vulnerable" populations, is placing them at a further disadvantage by not acknowledging they have different needs.

Are target groups stigmatized by existing policy responses?

There are multiple ways that the policy responses either marginalize or stigmatize "vulnerable" populations. For example, the policy states it will "produce and distribute information and awareness-raising brochures" (Quebec 2012, 6) to vulnerable populations. While these brochures are found on the *Secrétariat a la condition féminine's* website, they are not easily accessible unless one is aware of both the brochures and the website. A general internet search is less likely to lead to the brochures without this information. This contrasts with the accessibility of domestic violence information with a heteronormative framework found on any Quebec government website addressing domestic violence. For example, a general internet search of domestic violence in Quebec will more likely lead to information that reflects the "public story", such as the Quebec government's resource page on domestic violence (http://domesticviolence.gouv.qc.ca/need_resources.php).

The policy also states it will "support the design and production of awareness-raising tools and information on domestic violence addressed to people from sexual minorities" (Quebec 2012, 6). The responsibility to produce this information is assigned to the *Bureau de Lutte Contre l'Homophobie and the Ministère de la Justice* (6). This is problematic because even though the former is where research on the LGBTQ community often occurs, supporting awareness-raising tools is a passive intervention that minimizes the importance of understanding how sexual minorities experience domestic violence. Instead, the policy could support the *Bureau de Lutte Contre l'Homophobie* to research the experiences of domestic violence in sexual minorities in order to determine necessary interventions and to find prevalence rates.

Finally, the policy states it will provide immigrants and people from cultural communities information and awareness-raising tools that are directed towards victims (Quebec 2012, 6), provide information on Quebec values (8) and provide immigrants with leaflets on domestic violence (8). The problem with this, in addition to conflating immigrants and cultural communities, is that the policy intervention presupposes that immigrants and/or individuals from cultural communities are more likely to experience domestic violence, therefore, increasing the risk they will be stigmatized as a result. Additionally, there is no mention of sexual orientation.

How do existing policies address, maintain or create inequities between different groups?

One of the primary ways that the domestic violence policy maintains inequities between different groups is by emphasizing the importance of promoting equality between men and women. For

example, the policy states that "gender equality is the primary condition for elimination of domestic violence" (Quebec 2012, 2). One of the objectives of the policy is to promote egalitarian relationships between men and women, and girls and boys (Quebec 2012, 5). By indicating that equality between men and women will eliminate domestic violence, it is a heteronormative assumption that most individuals involved in domestic violence are in heterosexual relationships, and that gender is the most important inequality. Egalitarian relationships are certainly important; however, if egalitarian relationships are promoted between women and men, then those attracted to the same-sex are not receiving the message that their relationships are also important, and abuse does occur in same-sex relationships. Therefore, it is important to include same-sex relationship information in order to normalize their relationships and to promote egalitarian relationships.

What Inequities Actually Exist in Relation to the 'Problem'?

What are the important intersecting social locations and systems?

The policy fails to consider that two or more of the 'vulnerable' populations may intersect, or that there are possible connections with domestic violence and racism, heterosexism, colonialism, ableism, and/or gender identity. All of these factors will alter how domestic violence is experienced. Even when the intersection of gender and sexual orientation is acknowledged (lesbians), this is the only intersection considered.

Lesbian is often understood as white and middle class (Holmes 2009, 80; Russo 2001, 59): a depiction that marginalizes many lesbians, and their experiences. Additionally, prioritizing the need to address heterosexism in lesbian domestic violence is excluding other forms of oppression such as racism, ageism, and classism (Russo 2001, 59). If white, middle-class lesbian domestic violence is invisible in policy, then the level of invisibility of lesbians not identifying this way is much greater. Intersectionality, therefore, can help identify some of these issues. For example, intersectionality may aid in understanding that domestic violence as a hidden phenomenon is part of the white, middle-class story because white, middle-class women have "been able to claim the privilege of privacy" (Holmes 2009, 85). Intersectionality will also expose that lesbian domestic violence is naturalized in racial and lower-class groups because violence is more common, accepted, and visible for lesbians of color, and working-class lesbians (Holmes 2009, 85). This is important because naturalizing violence not only stereotype lesbians of color and working-class lesbians as more prone to violence, but it will also make it more difficult to recognize domestic violence in their relationships. This is why it is essential to consider that not all experiences follow a heteronormative framework, and that adapting policy measures for 'vulnerable' populations is insufficient to address their needs.

What are the knowledge/evidence gaps about this problem across the diversity of the population?

Due to the necessity of evidence-based policy, much attention is given to finding a prevalence rate to legitimize lesbian domestic violence as a 'real' problem (Ristock 2002, 10). Many studies attempt to provide some type of prevalence rate (Donovan & Hester 2014; Holmes 2009; Little & Terrence 2010;

Walters 2011); however, as Edwards et al. (2015) highlight, the estimates of domestic violence range from one percent to more than ninety-seven percent (113). This becomes problematic because if there is no substantive evidence for lesbian domestic violence, then it is more difficult to contend that this is a policy issue. Overcoming this evidence gap may require addressing some of the barriers that prevent finding an accurate prevalence rate. Some of these barriers include underreporting (Little & Terrence 2010, 430), use of standardized measures designed for heterosexual samples (Badenes-Ribera et al. 2015, 48), and not assessing the gender of the perpetrator (Balsalm 2001, 26).

What are Feasible Long and Short-Term Solutions?

What is most important in terms of combating domestic violence is not only recognizing that it extends beyond the dominant heterosexual framework, but also integrating the knowledge and experiences of those in the 'vulnerable' groups without stereotyping or 'othering' them. Young (1990) states that "groups cannot be socially equal unless specific experience, culture, and social contributions are policy affirmed and recognized" (174). Adapting interventions that are originally meant for those who are included in the dominant frame of domestic violence is not being inclusive, it is assimilation. Including the experiences of lesbians and other vulnerable groups requires a long-term commitment to research the experiences of different people, collect disaggregated data on domestic violence, work with the respective communities to understand how it is experienced differently, and formulate solutions based on this information. Is it feasible? The policy does indicate that it will support research on domestic violence in vulnerable populations (Quebec 2012, 18), therefore, it depends on the amount of commitments the Quebec government is willing to make.

In terms of short term solutions, one of the additions to the policy that can be included is the threat of 'outing' as a form of abuse in the definition of domestic violence. Threatening to disclose someone's sexual orientation is a prominent form of abuse, one that forces the abused to decide whether to leave the relationship or to seek assistance (Walters 2011, 253; West 2002, 123). The fact that it is not mentioned (Quebec 2012, 1) suggests that the experiences of same-sex domestic violence is not considered. Therefore, adding this to the policy is not only feasible, but it will acknowledge that there are some types of abuse not found in heterosexual relationships.

How will the Proposed Policy Responses Reduce Inequities?

How will you ensure that the proposed options do not reinforce existing stereotypes or produce further inequities for some populations?

Young (1997) states that by differentiating social groups, there is the risk that experiences of some group members will be normalized, while others will be excluded (388). This has already been illustrated with the example provided by Holmes (2009) that showed how lesbian domestic violence studies are based on white middle class lesbians, marginalizing lesbians who do not 'fit' this model. However, if an intersectional approach is used to research lesbian domestic violence and understand it

from all social locations and with the intersecting factors that accompany these locations, then the risk of marginalizing the experiences of any lesbians will decline.

There is the possibility that focusing on difference will further marginalize and/or stereotype lesbians; however, the problem with this is not focusing on 'difference', but when these differences are reduced to a single factor rather than trying to understand them. Including difference must move beyond mere 'recognition' and include understanding differences, how they are problematic, and how they are experienced. Difference goes beyond recognition, and until effort is made to incorporate this knowledge, to learn and understand this knowledge, difference will be stereotyped and marginalized. Does that mean that those who are "different" should try to "fit" in instead? They will be forced to assimilate because dominant society is incapable, or perhaps, unwilling to accept difference.

Conclusion

My analysis illustrated the need for intersectionality in Quebec domestic violence policy. It revealed that not only are lesbians collectively invisible in the policy, but that the differences among lesbians also need to be recognized to truly understand their experiences. An intersectional-based policy analysis exposed the ways that lesbian domestic violence is invisible due to a heteronormative framework. Simply naming a group in the policy, listing them as "vulnerable", and treating them as a homogeneous unit is insufficient for visibility. This is simply another way of reinforcing their marginal status by insisting they "adapt" to the dominant framework so that they "fit" within existing policy. An intersectional analysis revealed that domestic violence can be experienced in different ways, and that anyone who deviates from the dominant framework is at risk of having their experiences reduced to a common factor, such as being a member of a "vulnerable" population, rather than being understood. The question that remains is: even if an intersectional policy analysis reveals differences, how can policy change to incorporate them?

One of the first steps towards improving policy is research that "can serve as an intellectual basis for more thoughtful deliberation" (Manuel 2006, 196). Research that can accomplish this will permit inclusion, and this requires developing a separate, intersectional framework to analyse and understand lesbian domestic violence, and then push for that knowledge to inform domestic violence policy. A separate understanding of lesbian domestic violence is necessary in order to understand all the factors involved, as well as the power dynamics (Ristock 2002, 180). Once we have research that will provide a more accurate depiction not only of lesbians, but all Canadians, then this information can inform policy resulting in policies that are representative of everyone's experiences. The key to ensuring that this research is considered in domestic violence policy is recognizing that the 'public story' of domestic violence prioritizes white, middle-class, heterosexual women at the exclusion of other women.

Moving beyond the "public story" is important to prevent the marginalization of different groups in domestic violence policy. Lesbians will continue to be abused regardless of what the policy states, however, without it being addressed more thoroughly in the policy, little resources and support will be directed towards the lesbian community. Universal domestic violence policy does not accurately

reflect the realities of all people who experience domestic violence, and much more effort needs to be made to address this. It is only with visibility that lesbians and their relationship issues, such as domestic violence will be recognized, and this as a step closer to social acceptance, to policy inclusion and recognition beyond naming.

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The Evolution of the Canada Pension Plan, Its Expansion, and the Aging Population

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ABSTRACT

This paper provides an examination of the Canada Pension Plan (CPP) expansion proposed by the Government of Canada in June 2016. Because the CPP expansion will reform CPP policy it is necessary to analyse the degree of this impact on working Canadians. This paper begins with an overview of the origins and evolution of the CPP and then explores retirement savings of the Canadian population to date. Finally, it evaluates the expansion which will reform CPP in three major ways: first, it will increase the contribution rate by 2 percent from 9.9 percent to 11.9 percent; second, it will increase the replacement level from 25 percent of income to 33.33 percent of income; and third, it will increase the upper earnings cap from $54,900 to $82,700. The increase in the contribution rate will negatively impact low income Canadians who are already at risk of financial hardship. The Government of Canada is increasing the Working Income Tax Benefit (WITB) to compensate for this effect; however, low tax literacy and the underutilization of social programs by low income Canadians suggests these efforts may be ineffective. This paper's approach to the second and third CPP reforms is to employ a simple model to estimate maximum pensionable earnings in 2025. The equation is a rudimentary calculation of CPP retirement benefits and one shortcoming of these types of models is that there are many assumptions made about earnings, such as holding income constant, which does not reflect reality. Based on the model used in this analysis, CPP reforms will have a negative effect on the post retirement earnings of all seniors in Canada. If Canadians are unable to increase their retirement income through the CPP reforms, new policy tools will have to be modified in the coming years.

In Canada, pension policy is developed and financed with the goal of accumulating pension benefits for the labour force. This paper will focus on the Canada Pension Plan (CPP) and its impact on a workers' ability to accumulate pension benefits for their retirement years. Specifically, this paper will look at the proposal for the expansion of the CPP introduced in the 2016 Budget tabled in Parliament by the Liberal government (Canada, 2016b). There are many challenges to studying the impact of pension plans on the Canadian workforce due to its multifaceted nature. Contributions to the CPP extend an individual working life beginning at age 18 and ending at age 70. For this reason, the capacity of the Canadian workforce to plan and save for retirement is highly varied. Additionally, there are several variables that interact with pension policy which affects pension benefits. These variables include gender, education, health, income, the nature of employment, the economy, the use of private savings schemes, and the demographic composition of society to name a few. This paper will not be an exhaustive exploration of the CPP but will serve as a foundation for our understanding of the evolution of the CPP, the justification for its expansion, and the implications for our society.

First, it is necessary to define and understand the terms to be used in the analysis. This presents another challenge because the Government of Canada does not have official definitions for several key ideas that will be discussed in this paper. For example, poverty, retirement, and the middle class remain undefined. While this reflects the fluid and social aspects of these concepts it is a detriment to any academic study on the topic. In this paper, we will understand poverty rates in Canada as measured by the after-tax low income measure (LIM) unless stated otherwise. The definition of retirement is associated with income and labour force participation; however, because retirees are currently allowed

to work and receive benefits simultaneously our understanding of what it means to be retired is blurred. Finally, when discussing the middle class we will see that academics and politicians tend to define them differently. This paper is structured with three main components: First, it will explore the origins of contributory pension policy and its role in helping individuals prepare for retirement. Second, the paper will look at the Canadian population today and how they are saving for retirement. Finally, the paper will look at the CPP expansion proposal and argue that if the goal of the CPP enhancement is to help middle class families it does not appear to meet that target and will have a negative effect on post retirement income for all income brackets.

Origins and Evolution of the CPP

The growth of early Canadian cities was a result of the industrial revolution which attracted people seeking employment, but because of a lack of infrastructure, poverty, pollution, and crime persisted. During this period, care of the poor fell to relatives, friends, municipal relief, and private charity. Limited forms of institutional care existed in some provinces through English Poor Laws and religious organization in Québec. Municipalities encouraged relatives to take care of the aging poor who were often unable to do so because of low wages and seasonal unemployment—the same reasons the aging poor were unable to save for themselves. The stigma of the aging poor as dishonest and lacking in morals was eclipsed as charities and institutions became overwhelmed with overcrowding and long wait-lists. Individuals affiliated with charities and institutions unanimously agreed that more should be done for the aging poor before a House of Commons committee in 1912. Their discourse surrounding care of the aging poor reflected the need for security as a social right in which the retired are framed as respectable citizens who are unable to adapt to a changing society, unnecessarily separated from their spouses, and unnecessarily institutionalized (Bryden, 1974). This pressure on the government resulted in the creation of the Old Age Pension Act in 1927 which was amended in 1951 as the Old Age Security and Old Age Assistance Act that finally culminated in the Canada Pension Plan in 1965 that we are familiar with today.

Before the adoption of contribution-based pensions, coverage in Canada was limited. The Federal Government of Canada established military pensions in 1870 to control high desertion rates. Federal employees became eligible for pensions in 1870 while provincial employees in Québec were the first to receive pensions in 1876. For Canadian workers not in the military or government, pensions were available to employees of the Grand Trunk Railway in 1874 and the Canadian Pacific Railway in 1903 (Canada, 2016g). Newfoundland was the first province to offer men a means-test pension for the aged in 1911 (Bryden, 1974). During this period discussion in parliament had begun about the possibility of old age pensions for all Canadian workers, which was a result of similar policies being adopted in Germany, the United Kingdom, and New Zealand (Bryden, 1974). The first pension in Canada available to all working men was established by the Old Age Pension Act in 1927. During this period, approximately six percent of the population was over the age of 65, and of this population, approximately 57 percent of men were still in the workforce (Bryden, 1974).

The proposal for a contribution-based pension scheme did not occur until the 1957 election campaign. When the union body Canadian Labour Congress revived the proposal for this type of plan in the early 1960s it was well received politically because it was already an active issue of debate. During the 1963 election, the Liberal, Conservative, and New Democratic parties were all promoting contributory-based pensions for Canadians (Bryden, 1974). In Walter Gordon's 1964 Budget Speech in the House of Commons, he attempted to ease Canadians misgivings about increasing their payroll taxes by saying that Canadians paid some of the lowest personal income taxes compared to their American neighbours (Canada, 1964). In the 1965 Budget Speech, he further promoted CPP by suggesting that it will help ease the financial burden faced by provincial and municipal governments and that it will serve as a new financial institution for Canadians to invest their savings (Canada, 1965). During this period, approximately 33 percent of people aged 65 and older were considered low income (Canadian Centre for Policy Alternatives, 2015). The Canada Pension Plan began on January 1, 1966.

The CPP can be broken down into two policy logics: the first pillar is universal social provision supplied to the entire aging population through Old Age Security (OAS), and the second pillar is social insurance encouraging labour participation, the latter of which this paper will focus. The CPP is a social insurance policy available only to those who have worked and paid into the plan. Working individuals and their employers will automatically contribute to the plan over time. The amount of benefits received will depend on the amount an individual has contributed yearly and the number of years an individual has worked. It is symbolic that the CPP was administered by the Department of National Revenue (currently Canada Revenue Agency) and the Department of National Health and Welfare (currently Health Canada and Human Resources and Labour Canada), the department responsible for the promotion of the health of Canadians. Working men and women between the ages of 18 and 70 were covered by the CPP. If an individual chose to retire before the age of 70 they would be subject to an earnings test that would reduce the amount of benefits received until the age of 70 is reached. Apart from the self-employed, mandatory retirement was set at age 65 until it was eliminated between 2005 and 2012 (Klassen, 2013). Retirement benefits are designed to replace 25 percent of a worker's income and the contribution rate for employees and employers was set at 3.6 percent (Canada, 2016d). In 1966, the upper earnings limit was set at $5,000 of annual income and the lower earnings limit was set at $600, which in 2016 dollars amounts to approximately $35,000 and $4,400 respectively (Bank of Canada, 2016). During this period, approximately 9 percent of the population was over the age of 65 (Canada, 2008). The CPP was scheduled to make an actuarial report after the first five years of operation, and despite introducing low and high range estimates in the 1964 report, response to, and participation in, the plan was so substantial and unexpected that the government released an updated report two years early in 1969 (Canada, 2016d).

The CPP has not changed significantly over the years. This is largely because the federal government does not control CPP policy and any changes made must be agreed upon by two-thirds of participating provinces (Canada, 2016i). In 1987, the eligibility age was lowered to 60 to match the Québec Pension Plan and premiums were increased to 5.6 percent. In 1990, premiums were increased to 9.9 percent and incrementally phased in over a period of seven years. (Klassen, 2013). In 1997, the Canada Pension Plan Investment Board (CPPIB) was established to invest the funds of the CPP to help

provide a cushion for the retirement of the baby boomers which are expected to place a maximum demand on the CPP by 2021 (Klassen, 2013). The aim of establishing the CPPIB was to reassure pensioners and employers that pension assets would be properly managed and funds would be available at retirement (Klassen, 2013). Pensioners and employers were becoming increasingly concerned about the large unfunded liability of the CPP, the underperformance of the CPP, and increasing payroll taxes (ibid). In 2012, people who wanted to receive pensions before the age of 65 no longer had to stop working (ibid). Therefore, an individual could be receiving and contributing to their pension simultaneously blurring the line of what it means to be retired. It was also around this time that eligibility for pensions changed with full benefits being available at age 65. Anyone who takes a pension before the age of 65 will see a reduction in their benefits by up to 36 percent and those who take a pension after the age of 65 will see an increase in their benefits up to 42 percent (Canada, 2016e).

The current objective of the CPP as stated by the Government of Canada (2016i) is to provide protection to workers and their families against lost earnings due to retirement. But to what degree of protection and to what extent? There are two criteria that judge the adequacy of income after retirement: whether incomes are above the low-income threshold or whether they allow individuals to enjoy the same standard of living after retirement that they enjoyed before retirement (Baldwin, 2010; McDonald and Donahue, 2011). What this means to an individual will vary based on their own personal history. For example, almost 10 percent of the Canadian population in 2011 were considered low income earners (Canada, 2013r). We can assume that when these individuals retire living above the low-income threshold and enjoying the same standard of living will be very similar; however, for those that fall within higher earnings brackets, the idea of living above the low-income threshold or at the same level of income after retirement is dichotomous. Qualitative research on the experience of retirement transition for seniors reveals that most retirees feel confident about their financial situation pre-retirement. Very few retired individuals had worked or currently work with financial advisors to plan their investments which leave them at risk for lost assets due to inflation or unexpected expenses. For this reason, some men and women have experienced difficulties to maintain their assets leading to uncertainty or anxiety about the future (Greenwald and Associates, 2016; Goodwin and O'Connor, 2014; Makenzie, Keuskamp, Ziersh, and Baum, 2011).

The Canadian Population Today and Retirement

The CPP is widely credited with reducing low income rates of seniors in Canada. When the first CPP benefits were received by retirees there was a sharp decline in the rate of low income for seniors going from approximately 35 percent in 1976 and levelling off to approximately 5 percent in 1997 (Conference Board of Canada, 2016). Low income rates increased around the economic recession of 2008 to 5.8 percent (Canada, 2009b) which decreased to 5.2 percent by 2011 (Canada, 2013). Different groups are more at risk to live in low income households within the senior demographic. The incidence of low income is highest for seniors who are unattached (15.6 percent) and senior women (7.6 percent) compared to seniors who live in economic households (1.6 percent) and senior men (3.6 percent)

highlighting the impact of familial support, low-wage work, and inequality (Canada, 2010).

The main sources of income for seniors today are employment income, investment income, Old Age Security/Guaranteed Income Supplement, Canada Pension Plan/Québec Pension Plan, and private pensions. In 2005, approximately 97 percent of the labour force was contributing towards or receiving, CPP benefits (Canada, 2009c; Canada, 2008). Overall, 55 percent of seniors who have retired within the past five years feel that they are financially the same as before they retired, approximately 19 percent feel that they are better off, and approximately 26 percent feel that they are worse off (Ontario, 2009). It should be noted that there is an income bracket dimension to these responses and those who were more likely to respond that they are now worse off after retirement are individuals who were in higher income brackets pre-retirement. Since the 1970s senior incomes have dramatically improved. The average income for seniors between 1976 and 2006 increased from $33,380 to $51,682 (ibid). After the introduction of the CPP, retired seniors' incomes increased continuously until the mid-1990s when income from the CPP became flat, matching reliance on private pensions for income, and then reliance on private pensions as a source of income increased (ibid). While this trend should not concern us if we look at the savings rate of public sector employees, it does deserve some consideration when we investigate the savings rates of employees in other sectors. For example, individuals who work in the business sector fall 2 percent below their savings target, while other sectors, including the self-employed, fall 1.5 percent below their savings target for retirement benefits (ibid). Part of this issue is a low-interest rate environment that limits returns on safe investments and reduces the value of mutual funds and dividends (Williams, 2003).

The CPP is funded solely from the contributions made by the employed through payroll taxes. In 1997, payments made by workers and employees were legacy costs meaning they were paying money into benefits that had already been distributed to the population leading to a lack of confidence in the scheme (Baldwin, 2010). Pension reform at the time was difficult and provinces were resistant to increasing the contributory rate. Since 1997, the CPPIB has generated greater public confidence about the financial future of the CPP through its successful investment-optimizing mandate. The retirement of the baby boomer generation presents significant challenges for pension policy in Canada. Today, three out of ten people in Canada are baby boomers. This cohort has so much impact that a metaphor has become commonplace about their aging and exit from the workforce that does not inspire confidence: the silver tsunami. In 1976, approximately 9 percent of the population was aged 65 and older compared to 14 percent in 2011 (Klassen, 2013). By 2021, seniors are expected to outnumber children aged 14 and under impacting the age dependency ratio with implications for social and economic development, and demands on social support (Canada, 2016j). The percentage of the population aged 65 and older is expected to reach over 25 percent by the year 2050 (Canada, 2012).

The evolution of pensions for seniors in Canada today has resulted in an increased reliance on private pensions. Considered the third pillar, private pensions include employer based workplace pensions and individual retirement savings plans. In 2005, approximately 35 percent of the labour force was contributing towards private pensions (Canada, 2009c; Canada, 2008). Employer based workplace pensions come in three forms: defined benefit plans (DB) that set out what benefits the worker will receive on retirement (this is the form of the CPP); defined contribution plans (DC) that are employer

sponsored but individually provisioned, where the individual takes on all the risk; and finally, hybrid/mixed plans (H/M) where income is derived from both DB and DC portions (Canada, 2014). DB plans were traditionally the predominant plan of the public and private system (Ezra, 2015); however, between 1977 and 2011 there was a drop in DB plans in the workplace by 20 percent and an increase in DC and H/M plans by 10 percent (Canada, 2014). Overall, pension coverage for private sector employees declined from 35 percent in 1977, to 25 percent in 2007, yet when we look at differences by gender we find two different stories (Ontario, 2009). Workplace pensions for men declined from 57 percent to 37 percent while they increased for women from 24 percent to 33 percent (Canada, 2014). The reason women see increased coverage during this period while men see a decrease is a result of their employment industry with women working in high coverage sectors such as education and health services (ibid). Research shows that DB pension coverage in Canada increases with the amount of time spent with an employer that is not the result of an age effect (ibid).

When the responsibility to manage an investment falls on the employee a phenomenon called yield disparity occurs where the lower your socioeconomic status the lower your investment income. According to Morey (2010) less educated workers are often overwhelmed by investment decisions and are more likely to choose default plans with lower earnings. On average, modest estimates conclude that less educated workers have a 2 percent lower rate of return per year on their retirement accounts than workers with higher education. Even when companies hold educational seminars it has been shown that people with lower incomes benefit less from these seminars than people with higher incomes (Morey, 2010). Therefore, a decrease in DB pensions and an increase in DC pensions can result in lower earnings for individuals, especially those working in the private sector and those who are less educated within the private sector. Other forms of private pensions include Registered Retirement Savings Plans (RRSPs), private investments and other income or assets. Approximately 38 percent of the labour force in 2005 was contributing to RRSPs (Canada, 2009c; Canada, 2008). RRSPs and other private investments primarily target people in middle or high income brackets and are not very effective at helping low income individuals prepare for retirement. This is concerning because these savings methods have become a significantly larger source of income for seniors in retirement. Between 1990 and 2005 the reliance on RRSPs as a source of income increased by 55 percent for men and 135 percent for women, while the reliance on private investments decreased for men by 53 percent and 24 percent for women (Canada, 2009c).

Even when individuals have workplace pensions there can be uncertainty surrounding pension payments to employees. In Canada, companies have been taken to court for failing to fulfil their contractual obligations to their employees. Canada has laws in place to protect workers and their pensions although they need to be strengthened. To protect workers Parliament passed Bill C-12 in 2007 which states that employers are obligated to make any payments that would have been required of them (Canada, 2007). This Bill came under criticism by the late Jack Layton in 2009 when he questioned the government on its lack of enforcement of the Bill citing GM and AbitibiBowater (currently Resolute Forest Products) as two companies that had not been held accountable for pension shortfalls. Minister of Industry, Tony Clement, responded by stating that the government was working on regulations to enforce the laws that had been passed in 2007 (Canada, 2009a). In 2016, Nortel came to an agreement

with its employees regarding their pensions after an eight-year battle in court that will result in Canadian employees receiving 40 cents on the dollar for the pension payouts. This highlights the uncertainty that pensioners can face especially for those who are employed by American companies that are not under the same legal obligations to their employees (The United States, 2017).

Another important factor impacting retirement benefits is the nature of employment. Pension benefits are based on the number of hours an individual has worked throughout their life (Canada, 2016f). Full-time employment is defined as working at least 30 hours per week in one main job (Canada, 2015b). Although the full-time employment rate in Canada has risen modestly since 1976, we again note differences between men and women. Apart from women aged 25 and under who have seen a decrease in their full-time work, women overall have greatly increased their full-time work participation. This is different for men overall who have seen a significant decline in full-time work that cannot be explained by a preference for part-time work (Canada, 2009b). Additionally, a large portion of increased part-time work is a result of the inability to find full-time employment and cannot be fully explained by a decline in labour market participation or an increase in the unemployment rate (Canada, 2009b). We can see that there is a trend towards fewer opportunities for individuals to save for their retirement, whether it be a result of earning less or saving less over their working life. Change in the nature of work and employment contracts in a post-industrial and increasingly service and knowledge dominated economy is a phenomenon not unique to Canada but implies a rethink of pension design.

CPP Expansion

How successful are Canadians at saving for retirement? People do not always act in their best interest when it comes to retirement savings and Canadians tend to have sub-market performance in their investments compared to their American neighbours (Kesselman, 2010). Additionally, Canadians are living longer lives which increases their risk of outliving their savings (Canada, 2015a). Life expectancy in 1960 for Canadian men and women was 68 and 74 respectively compared to 2013 which was 79 and 84 (Canada, 2017). If we kept pension policy at the current status quo we would likely see an increase in reliance on OAS/GIS in the future, which should be avoided, because it is financed by the general tax revenue of Canadians.

In June of 2016, Canada's Minister of Finance Bill Morneau met with provincial and territorial Finance Ministers to discuss retirement security for Canadians where they agreed, in principle, to work on enhancing the CPP (Canada, 2016c). Before talks about the expansion of the CPP began in earnest, several provinces were already consulting with one another about the need to expand pensions for their workers including British Columbia, Manitoba, Ontario, New Brunswick, Nova Scotia, and Prince Edward Island (British Columbia, 2010). They argued that because CPP is the most practical approach to strengthen retirement income in Canada, serious consideration should be given for its expansion.

In the CPP expansion backgrounder, the Ministry of Finance argues that the middle class is not saving enough for retirement (Canada, 2016a). One problem with using the term middle class is that there is no clear definition, and as a result, economists, political theorists, sociologists, and politicians

may have something different in mind. Academically speaking, the question of the middle class has been actively discussed since Marx's materialist debate about class struggle. In its original conceptualization, the middle class was a group of business owners belonging to the proletariat, not the bourgeoisie. We often refer to this conceptualization as the old middle class, as the proportion of small business owners in Canada has shrunk considerably over time. The new middle class is generally thought to contain mostly employed workers, which encompasses an overwhelming majority of the Canadian class structure; but with such a large disparity in earnings, this doesn't tell us much about what it means to be middle class (Tepperman and Curtis, 2004). Most Canadian's believe that they are a part of the middle class (Blatchford, 2015) and when asked what issues politicians should focus on 'help for the middle class' is often one of the top responses (Ipsos, 2016). Although Finance Canada does not define the term middle class, by examining their assessment of who is not saving enough for retirement, the third quintile has the largest share of under-savers represented by those who earn approximately $38,000 after tax in 2010 (Canada, 2015c). Yet, we also know that former Minister of Finance Joe Oliver said that families who earn $120,000 qualify as middle class (Blatchford, 2015). It would seem that there is a large variation in what it means to be middle class academically and politically. Regardless of whoever we identify as the middle class, more than 70 percent of Canadians support CPP expansion even though it means higher deductions on paycheques (Angus Reid Institue, 2016; The Forum Poll, 2016).

The expansion will reform the CPP in three major ways: first, it will increase the contribution rate by 2 percent from 9.9 percent to 11.9 percent; second, it will increase the replacement level from 25 percent of income to 33.33 percent of income; and third, it will increase the upper earnings cap from $54,900 to $82,700.

The first CPP reform will raise premiums from 9.9 percent to 11.9 percent of pensionable earnings and will result in payroll tax increases for working Canadians and businesses. Increased payroll taxes will result in lower take-home pay for all Canadians. Finance Canada recognizes that low income earners will be negatively impacted by the raise in premiums (Canada, 2016h). Currently, 10 percent of low income families are unable to save enough for retirement to replace 60 percent of their income post retirement, and with the raise in premiums, this number will increase (ibid). A reduction in available take-home pay will cause additional strain on low income earners. To compensate for this negative impact the Government of Canada is increasing the Working Income Tax Benefit (WITB) to help low income families who are unable to make room in their budget for higher contribution rates (Canada, 2016a). There are potential negative impacts of reduced disposable income for low-income individuals and families. Living paycheque to paycheck has many negative effects on the lives of the working poor especially in situations of immediate cash shortfalls (Parliament of Canada, 2006). People with incomes of less than $30,000 a year are most likely to turn to non-mainstream financial services known as payday lending companies, and in a study by the Financial Consumer Agency of Canada, low-income individuals responded that the main reason they used payday loans was because they needed the money immediately (ibid). Furthermore, a study by Marston and Shevellar (2014) found that despite knowledge of the high cost of the payday loans individuals chose to borrow for pragmatic reasons. The effects of poverty and low income on the long term health and well being of populations is well studied (Raphael, 2003; Danis, 2010; Wanless, 2010) and there is a risk that the working poor will have worse health

outcomes post retirement years if their level of poverty is increased during their working years. It has been reported that social programs are underutilized in Canada (Genest-Grégoire, Godbout, and Guay, 2017). Furthermore, low income is associated with decreased tax literacy (ibid) suggesting that the successful expansion of the WITB faces serious challenges. To avoid potential negative outcomes the Government of Canada will want to maximize the participation of low income earners in the refundable tax credit to ensure the success of the WITB (Forman, 2010).

The following section of the essay will explore the second and third CPP reforms. The second reform is to increase contribution rates from 25 percent to 33.33 percent, while the third reform is to increase the maximum contribution cap from $54,900 in 2016 to $82,700 by 2025. To explore reforms two and three, this paper's approach is to use an equation that contains the parameter of a year's maximum pensionable earnings interacting with the contribution rate and the number of years worked. This equation is modeled after a Fraser Institute report (2016) and can be expressed as follows:

$$X = Y \left(\frac{past\ 5\ years\ earnings}{5} \right) \frac{\Sigma \left(\frac{year\ 1\ earnings}{year\ 1\ \max pension\ earnings} + \cdots + \frac{year\ n\ earnings}{year\ n\ \max pension\ earnings} \right)}{n}$$

Years maximum pensionable earnings is given by X, where Y is the contribution rate, and n is the number of years worked. The equation is a rudimentary calculation of CPP retirement benefits and one shortcoming of these types of models is that there are many assumptions made about earnings, such as holding income constant, which does not reflect reality. Additionally, the three income levels selected for the analysis match the three income levels addressed in the Finance Canada Backgrounder (2016a). Three static numbers were chosen to highlight the effect of the increase in the contribution rate and income cap rather than using low, middle, and high income estimates which are not static and subject to change.

Table 1: Estimated Maximum Pensionable Earnings Under 2016 CPP			
Yearly Earnings (dollars)	Maximum Contribution (dollars)	Replacement Level (percentage)	Total (dollars)
25,000	54,900	25	2,846.08
50,000	54,900	25	11,384.34
75,000	54,900	25	25,614.75

Table 2: Estimated Maximum Pensionable Earnings Under 2025 CPP			
Yearly Earnings (dollars)	Maximum Contribution (dollars)	Replacement Level (percentage)	Total (dollars)
25,000	82,700	33.33	2,518.89
50,000	82,700	33.33	10,075.57
75,000	82,700	33.33	22,670.04

Within all three income levels, reforming the replacement level in conjunction with the maximum

contribution cap will have a negative impact on estimated maximum pensionable earnings for individuals retiring in 2025 compared to those retiring in 2016. Projections from Finance Canada (2016h) estimate that the income gap for at risk families will be reduced by approximately 45 percent; however, when we refer to the simplistic calculation of benefits above there does not appear to be any increase in maximum pensionable earnings. If the goal of CPP enhancement is to help middle class families it does not appear to meet that target.

Conclusion

The history of contributory pensions in Canada is long and complex. There are many variables that interact with retirement and employment that leave us with rudimentary summaries of a rich and diverse field. With the introduction of the Canada Pension Plan in 1966 the incidence of low income for people aged 65 and older dramatically reduced. Since the 1960s, Canada has seen an increase in life expectancy and an improved quality of life for retirees, a reduction in workplace pensions, and an increased reliance on the third pillar post retirement. Currently, Canadians in every tax bracket do not save enough for retirement. With the CPP enhancement, the labour force will be required to pay larger payroll taxes. Looking at the reforms Finance Canada has proposed to achieve the goal of increased post retirement income from the CPP it does not seem apparent that they will be successful especially for low income Canadians who face decreased take-home income and potential low participation rates in the WITB. Employing a simple model to estimate maximum pensionable earnings in 2025, when maximum contributions and replacement level reforms will be complete, the increase in income claimed by the Government of Canada was not replicable. Based on the model used in this analysis, CPP reforms will have a negative effect on the post retirement earnings of all seniors in Canada. Framing the CPP enhancement around the middle class appears to be rhetoric used by politicians to justify its implementation and ensure that the Canadian population would be in favour of increasing their payroll taxes. Given that federal and provincial support is necessary to make modifications to the Canada Pension Plan it may be years before we see reforms to the CPP. If Canadians are unable to increase their retirement income through the CPP reforms, new policy tools will have to be modified in the coming years.

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Living on the Edge: Delineating the Political Economy of Precarity in Vancouver, Canada

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ABSTRACT

Canadian cities are in the midst of a housing crisis, with Vancouver as their poster-child. The city's over- inflated housing prices decoupled from wages in the early aughts, giving rise to a seller's rental market and destabilizing employment. As neoliberal policies continue to erode the post-war welfare state, an increasing number of Canadians are living in precarious environments. This uncertainty is not just applicable to housing, however. Employment tenure has been on the decline, specifically since 2008, and better jobs—both in security and quality of work, with more equitable wages—are becoming less and less common. These elements of precarity are making decent work (as defined by the ILO), security of housing tenure, and a right to the city some of the most pressing issues at hand for Canadians. Using Vancouver as the principal case study, the political economy of precarity is examined through the various facets—including socio-cultural, economic, health, and legal—that are working to normalize this inequity. This paper proceeds to examine the standard employment relationship (SER) in a Canadian context through a critique of the neoliberal policies responsible for eroding the once widely-implemented SER is provided to conclude the systemic marginalization experienced by those in precarious and informal situations must be addressed via public policy instruments and community-based organization.

INTRODUCTION

While the sharing economy, such as shared housing provider Airbnb, or the gig economy associated with organizations like Uber, Lyft, TaskRabbit, and Fiverr, conjure images of affordable options for travellers, or employment opportunities during an economic downturn, they have simultaneously normalized housing crises and stagnating wages for those who live and work in urban centres. They similarly all refer to some form of precarity—an increasingly common reality of insecure tenure of both employment and housing being forced upon urban workers. Defined by unstable, low quality, inequitable, and temporary housing and employment, it's changing the identity of the Canadian middle class.

This paper aims to explore the factors that have led to the rise in precarious work and housing in recent years and elaborate on the impact for Canadians. The first step to understanding this phenomenon is delineating the precariat's identity. Next, I will explore what it means to be a member of the precariat in Canada. By using Vancouver, British Columbia as a case study, I examine how the two elements of precarity—employment and housing—have developed since the first United Nations Conference on Human Settlements took place in 1976. By examining the period following post-fordism, I will show how globalization and de-industrialization, exacerbated by economic slowdown, created an environment for precarity to thrive in. This investigation gives way to a modern framework of policies that can facilitate this new lifestyle in a safe and dignified way.
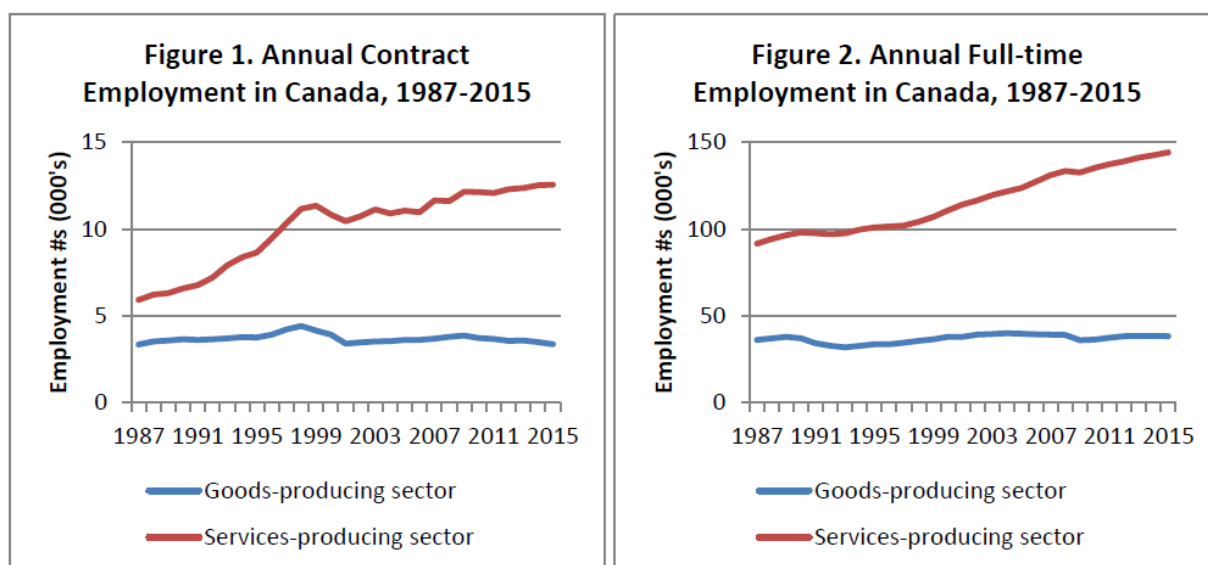
DELINEATING PRECARITY

IDENTITY

How have we arrived at the point where one-third of urban populations live in precarious environments? Some would argue that globalization has brought about global insecurity (Standing, 2011) while others are witnessing an unprecedented rise in populism in the Global North. The latter is evidenced by Britain's vote to leave the European Union and America's election of Donald Trump. Moreover, both the EU and the United States have pushed their industrial limits particularly seen in the decline of income mobility in the United States in the post-war era. This is a troublesome trend for young Americans, who now have a 50 percent chance of earning a greater income than their parents did, whereas forty years ago that chance was 90 percent (Chetty et al., 2016). In the meantime, Canada is embracing globalization[1] and the growing trend of precarious employment among its citizens as evidenced by Federal Finance Minister Bill Morneau's recent comments about the persistence of temporary contracts and/or part-time employment that characterizes the insecure employment young workers are currently subject to, which he called the 'job churn' ("Bill Morneau discusses 'job to job to job' realities," 2016). Moreover, newcomers to Canada are twice as likely to be precariously employed within their first year of coming to Canada and remain up to one-third more likely to be precariously employed than their non-immigrant counterparts for the first decade of their lives in Canada (Lewchuk et al., 2013, p. 32).

When dramatic shifts in the geo-political sphere occur, securing the basic necessities can become all the more difficult for citizens. So, for the purposes of this paper, *precarity is characterized by any situation where a person finds themselves in unstable, temporary, low quality, and inequitable housing and/or employment*. Precarity can manifest itself in two distinct forms: *formal* or *informal*. Formal precarity is work or housing situations that are part-time or temporary and only somewhat regulated (e.g. Airbnb, Uber driver, etc.). Informal precarity is work or housing that is deregulated and almost always temporary (e.g. street hawker or informal settlement). First it is worth exploring what it means to be *precariatised*, or, "living in the present, without a secure identity or sense of development achieved through work and lifestyle," as Standing puts it (2011, p. 16).

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[1] This is reflected in the recent approval of the Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union

Figure 1. Annual Contract Employment in Canada, 1987-2015

Figure 2. Annual Full-time Employment in Canada, 1987-2015

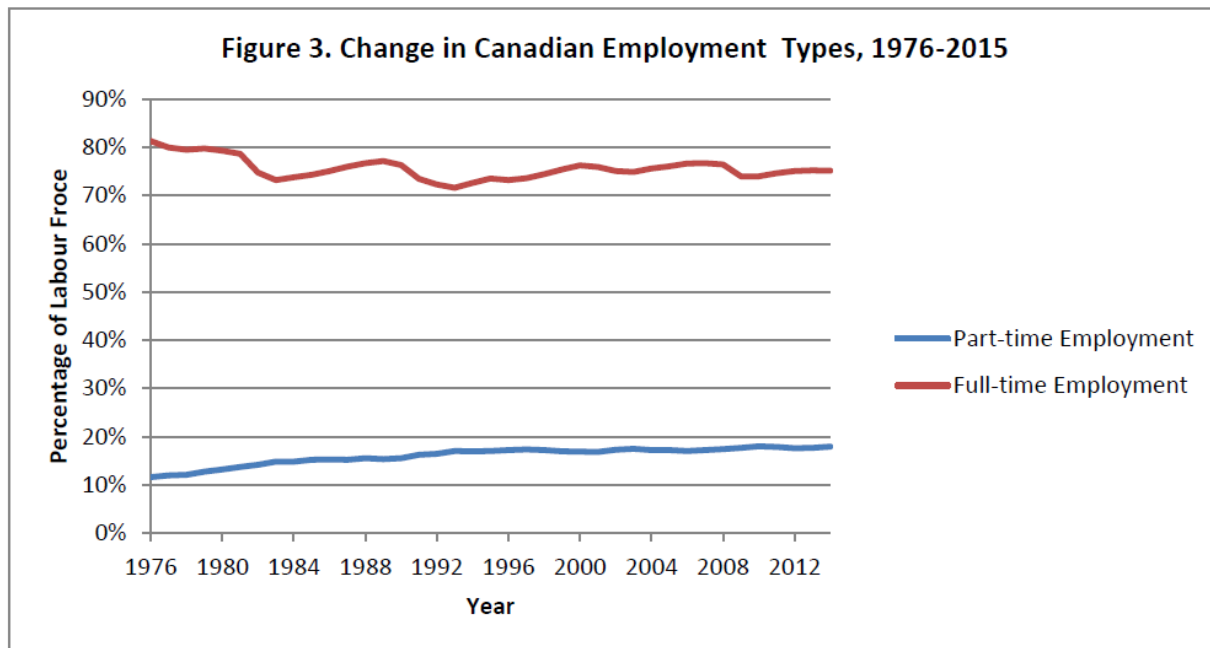Source: Statistics Canada, 2016. CANSIM Table 282-0011.

IMPLICATIONS

As production economies began shifting away from manufacturing and toward the service and technology sectors in the 1980s, a desire for business agility replaced the mass-production Fordist mentality. Running a lean operation of fewer full-time employees began to appeal to the next generation of companies as white-collar work increased throughout the 1990s. A streamlined organizational structure meant companies could loosen managerial centres and outsource many of their temporary employment needs to flexible workers (Tomaney, 1994). The latter was the primer for flexible work and contract services that gained popularity throughout the era, catalyzing the precariat identity (Standing, 2011). As seen in Figure 1 above, Canada was no exception to this trend as contract employment increased by 112 percent for the Canadian services-producing sector while employment in the goods-producing sector remained relatively flat from 1987 onwards (see Figures 1 and 2).

Inasmuch as precarity was born out of the post-Fordist desire to streamline organizational structures, its origins also had a supply-side element that began with migrants looking for work. As Standing (2011) points out, unskilled labourers come to urban areas seeking employment, which often ends up being temporary and sometimes informal, particularly in the developing economies of the Global South. This type of unskilled labour, while advantageous to employers, often has negative results for the employee(s) as it does not provide them with 'decent work'. The International Labour Organization (ILO) outlined its criteria for what constitutes 'decent work' as employment that "delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all

women and men" (International Labour Organization, n.d.).[2] Few of these criteria are ever available to members of the precariat, whether formal or informal.

In Canada, the Standard Employment Relationship (SER) was created to avoid this type of labour exploitation. It was formalized through a number of Canadian political institutions in the post-war era and came to be associated with "a full-time, full-year employment relationship where the worker has one employer, works on the employer's premises, and has access to social benefits and entitlements to complete the social wage" (Fudge & Vosko, 2003, p. 186). However, labour market de- and re-regulation has enabled businesses to actively erode the SER since the 1980s. This has consequently resulted in particularly high incidences of non-SER employment—or what Fudge & Vosko (2003) call 'contingent work'—among vulnerable populations such as youth, women, and immigrants in Canada. For Fudge & Vosko (Ibid), contingent work is predicated on "atypical employment contracts, limited social benefits and statutory entitlements, job insecurity, low job tenure, low wages, and high risk of ill health" (p. 183). These are all defining factors of the precariat's living conditions.

Source: Statistics Canada, 2016. CANSIM Table 282-0087.

Another typical member of the precariat is the temporary worker, who generally makes about two-thirds of the wage that a permanent employee would and takes on higher risks to achieve their tasks (Ibid). The work is often short-term and does not provide security of tenure (e.g. casual labour and

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[2] For further information and implementation strategies on decent work see the ILO's Decent Work Indicators (2013) framework and Goal 8 of the UN's Sustainable Development Goals in the 2030 Agenda for Sustainable Development.

most—if not all—of the jobs offered by the 'sharing economy')[3]. According to Statistics Canada, there were 2,017,900 Canadians, or 13.1 percent of the national labour force, employed in temporary positions as of November 2016 (Statistics Canada, 2016a).

With the ratification of ILO Convention 100 "*Convention* concerning Equal Remuneration for Men and Women Workers for Work of Equal Value" (simply referred to as 'equal pay for equal work') in Canada in the early 1970s, the number of women in the workforce began to rise, but so did forms of contingent work, most notably part-time employment (Fudge & Vosko, 2003). This was the case for Canadian workers as shown in Figure 3, where part-time employment rose from 11.62 percent of the labour force in 1976 to 17.59 percent in 2015 (Statistics Canada, 2016d). Katz & Kreuger (2016) found that formal precarious work in America rose to more than 50 percent from 10.1 percent of the total national workforce to 15.7 percent between 2005 and 2015. Of particular concern is how this growth in formal precarious work accounts for all of the net employment growth in the United States during that period (Ibid). Such part-time employment is usually held by women and minorities, and is precarious because it does not offer the same socio-economic benefits that full-time, permanent employment does; as Standing notes: "[p]art-timers, often women, … may end up more exploited, having to do much uncompensated work-for-labour outside their paid hours" (Standing, 2011, p. 15).

Fear of exploitation and a sense of insecurity often lead to high levels of stress and anxiety, having detrimental effects on both individuals and public health, including higher mortality rates among temporary workers (Lewchuk, Clarke, & de Wolff, 2011). However, one Canadian researcher has found that the basic minimum income, or "Mincome", project piloted in Dauphin, Manitoba from 1974-1978, which provided income security to low-income workers through a limited wage subsidy, worked well to relieve the negative health effects induced by precarious situations as people worried less about making ends meet (Forget, 2011).

FORMAL OR INFORMAL?

The legal status of precarious workers is often ambiguous at best, which lends itself to exploitation from employers and/or public institutions. An important disambiguation for legal purposes is that between contractors and the self-employed. There are "contractors" who are actually self-employed individuals working in environments where they should be considered employees, such as the 2013 incident at Shaw Communications in Calgary, AB. In this case, two employees found out they had been expected to file their income taxes as if they were self-employed individuals, despite working at Shaw's offices and using Shaw's equipment (Tomlinson, 2013). While illegal according to Canada Revenue Agency guidelines, it is advantageous for businesses to claim their employees are actually self-employed, as it allows them to avoid paying into social protection benefits such as Employment

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[3] n.b., I use scare quotes for the term 'sharing economy' because of its paradoxical connotation: to share implies multiple users have equal access to the same good or service. Once a power structure rooted in a monetary transaction regulates who has access, that good or service is no longer being shared, but instead being rented or exploited. For a critical account of the sharing economy see Tom Slee, *What's Yours Is Mine: Against the Sharing Economy* (OR Books, 2016).

Insurance, CPP, and holiday pay.[4] While this type of arrangement is rare, it highlights the trend of SER employment becoming precarious.

A less ambiguous yet equally important distinction is between formality and informality. Subsisting via informal means can result in a variety of undesirable outcomes for both the precariat and government institutions. It necessarily entails a cash economy, which, while offering short-term gains for individuals who escape the tax wedge, is negative in the long-term because it does not entitle workers to public benefits. According to the guidelines endorsed by the 17th International Conference of Labour Statisticians (ICLS) in 2003, "employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits" (Hussmanns, 2004). These guidelines are further endorsed by the International Labour Organization (2013b), which in Canada includes access to public employment benefits such as EI, CPP, and holiday pay (Lewchuk et al., 2013, p. 37). Moreover, governments should strive to avoid informality because it lends itself to tax avoidance as there is no incentive for informal workers to self-report their cash transactions and no way for governments to keep track of them. Since informal workers are not covered by any legal statutes, such as the Employment Standards Act in Canada, they have very little legal bargaining power, which puts them in a highly vulnerable state. Informal working conditions often exist outside of regulatory environments, which can save employers money but does not cover workers under health and safety regulations, making the informal precariat far less eligible for remuneration, such as workers compensation benefits, in the event of an injury (International Labour Organization, ibid).

The most concerning part of precarity is how quickly formal work can become informal. Formal precarity is not always problematic – in fact, it offers a lifestyle of both financial freedom and flexible work schedules to some precarious workers.[5] However, if a comprehensive legal and policy framework were created, it could address concerns over human rights and socio- economic justice. The benefits of formalizing include: (1) a shared identity, which empowers precariats to organize themselves; (2) legal rights and protection for workers and their families; (3) social protection for workers and their families; (4) the ability to develop community-based alternatives that create social equity; (5) the fundamental legitimization of the precariat and their activities, both as individuals and as a shared identity; and (6) benefits accrued to governments by reducing the likelihood of tax avoidance (Chen, 2012).

THE CANADIAN CONTEXT

A common misperception might be that the types of employment and housing described only exist in the Global South. But, in fact, it is an increasingly global phenomenon as the global economic downturn takes hold. As Standing notes, precarity can affect anyone, regardless of geographic location

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[4] See the Canada Revenue Agency publication "Employee or Self-employed?" for a detailed framework of employment categorization in Canada.
[5] See Chapter 7 in Lewchuk et al. (2011) for further details and interviewee accounts of the benefits of formalized precarious employment.

or social status: "It [precarity] is being in a status that offers no sense of career, no sense of secure occupational identity and few, if any, entitlements to the state and enterprise benefits" (2011, p. 24).

As one of the few G7 countries finding benefits in globalization at the present moment (Kassam & Mathieu-Léger, 2016), Canada is doing so at the cost of its citizens, who find themselves in increasingly precarious situations. In October 2016, Canada's Federal Finance Minister Bill Morneau acknowledged this by publicly asking: "How do we train and retrain people as they move from job to job to job? Because it's going to happen. We have to accept that" ("Bill Morneau discusses 'job to job to job' realities," 2016). This was part of what Morneau called the 'job churn'—a term that expresses a sense of instability and temporality, effectively synonymous with precarity—that young Canadians are currently experiencing.

Canadian sociologist Harvey Krahn's paper "Non-standard Work on the Rise," (1995)[6] analyzed data on temporary and contract employment to find it has been increasing since the 1980s in Canada. Fudge & Vosko have corroborated these findings, attributing them to the 1981-82 recession, when men's labour-force participation rate declined while women's plateaued (2003). The fiscal policy that followed this recession resulted in a rapid decline in SER institutions "and undermined the strength of the Canadian labour movement," paving the way for contingent work to become the new norm by the end of the 1980s (Fudge & Vosko, 2003, p. 197). With precarity still on the rise three decades later and the federal government insistence that globalization is the way despite an acknowledgment of the inequalities it creates (Kassam & Mathieu-Léger, 2016), it is unclear whose needs globalization serves.

PRECARITY IN VANCOUVER, BRITISH COLUMBIA: A CASE STUDY

In the summer of 1976, the first United Nations Conference on Human Settlements was presented by UN-HABITAT in Vancouver, British Columbia. As cities began to grow at exponential rates, it provided international heads of state an opportunity to develop a global action plan regarding the future of human settlements. Meanwhile, a community-organized alternative to the official conference, known simply as the *Habitat Forum*, ran concurrently to facilitate grassroots discourse and human rights based ideas epitomized in Vancouver's False Creek South and Granville Island developments. These ideas included co-operative housing that embodied the principle of adequate housing for all neighbourhoods that were accessible by active transportation rather than cars, and the preservation of limited natural resources.[7]

Forty years later, the issue of urban housing persists, as evidenced by the *Habitat III Policy Paper Framework #10 – Housing Policies* (2015d), which emphasizes housing as necessarily bound to urbanization and an integral part of socio-economic development. However, little has been done to address housing inequalities in Vancouver, despite being the birthplace of the Vancouver Action Plan—a framework for equitable housing conceived during the Habitat 1976 conference. Home prices in the

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[6] Data on this type of 'non-standard' (i.e., not full-time, permanent) work was collected by Statistics Canada's General Social Survey in 1989 and 1994, but was discontinued shortly thereafter.
[7] See http://habitat76.ca for more on the Habitat Forum.

region have been on a dizzying upward trend for decades now, as seen in Figure 4 below. This rapid increase has caused an affordability crisis as local wages have decoupled from housing prices. Between 2000 and 2014[8], the benchmark price of a detached house in Metro Vancouver rose 270 percent (Greater Vancouver Real Estate Board, 2000 & 2014) while average wages in the region rose only 29 percent over the same period (Statistics Canada, 2016b).

Figure 4.

REAL ESTATE BOARD
OF GREATER VANCOUVER
Residential Average Sale Prices - January 1977 to November 2016

NOTE: From 1977 - 1984 condominium averages were not separated into attached & apartment.
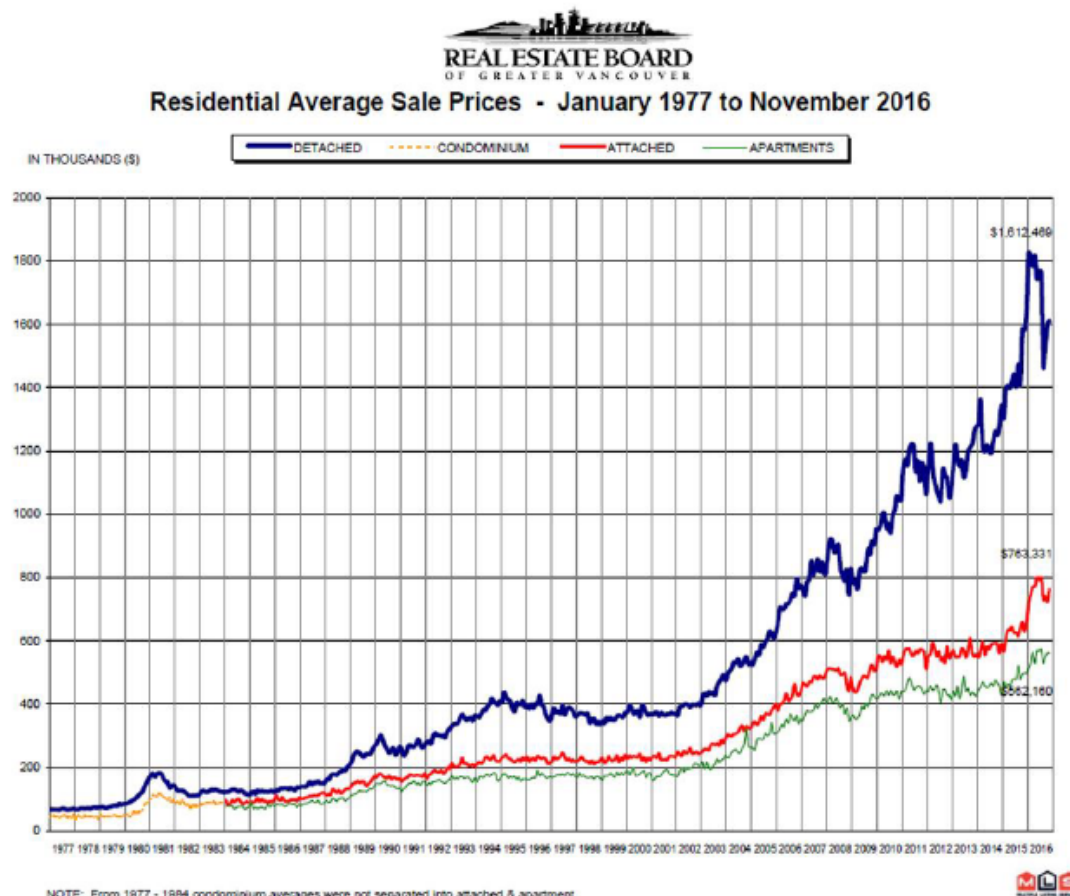
Source: Figure courtesy of Real Estate Board of Greater Vancouver. "Home sales and listings just below 10-year average," December 2, 2016.

When the average detached home price reached its peak of $1,826,541 in January 2016 (Real estate Board of Greater Vancouver, 2016), it became overwhelmingly clear that adequate housing has become well out of reach for most Vancouverites. Although prices have decreased slightly since then (see Figure 4), even purchasing a condo at the average sum of $763,331 is still beyond the general earnings of young professionals.[9] It is therefore logical to assume that many will continue to rent (or

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[8] Note that Statistics Canada Labour Force Survey data is only available between 2000 and 2014 on the subject of localized wages, nevertheless the discrepancy between wages and housing prices should be clear.
[9] Median employment income for Greater Vancouver was $32,230 in 2014. See Statistics Canada. (2016b) *CANSIM*

even live at home) well into adulthood, so this paper will focus on policy responses that speak to their needs, specifically those related to rental housing.

In the 2016 Rental Market Report for Greater Vancouver, the Canada Mortgage and Housing Corporation (CMHC) (2016) noted a decrease in the region's vacancy rate to 0.7 percent overall. Meanwhile, the average rental price rose 6.4 percent between 2015 and 2016 to $1,223 per month. The CMHC notes this is problematic, acknowledging "[t]his is well in excess of the allowable rent increase for 2016 of 2.9 per cent for existing tenants, as set by the BC government Residential Tenancy Branch, suggesting that new leases were signed by many tenants" (Canada Mortgage and Housing Corporation, 2016, p.3). While that may be true, they attribute this surge of new leases to a significant number of "building upgrades and renovations," (Canada Mortgage and Housing Corporation, 2016, p.3) which is also an eviction method that has now become a ubiquitous term among Vancouverites: 'renoviction'. In British Columbia, a renoviction has long been the most common method of legally empowering landlords to evict a tenant on the grounds of building renovations or a having a family member move in (Hager, 2016). However, in addition to this, a new method of eviction has also presented itself in Vancouver: fixed-term rentals, which the CMHC fails to mention in their report.

The city's extremely low vacancy rate has led to an exceedingly high demand for rental housing and, as such, prices are rising well over the government mandated 2.9 percent per annum. Fixed-term leases allow a landlord to stipulate a fixed timeframe (e.g. six months, one year, etc.) that a tenant may live in the rental unit before that lease expires. This subjugates tenants because once the lease has expired, the landlord has legal control over the unit and is entitled to do whatever they choose with the unit, whether that means selling the unit, leasing it again, or simply leaving it empty. However, if the lease is renewed, the terms can be re-negotiated, enabling a rent increase beyond the mandated 2.9 percent that a regular lease would allow for (Hager, 2016). This practice is highly beneficial to landowners while the insecurity of tenure experienced by the tenant puts them in a precarious situation because they are not guaranteed the ability to renew their lease, nor can they engage in financial planning beyond the term of the lease (usually one year).

Short-term rentals, specifically those provided by the 'sharing economy' such as Airbnb, are also precarious because they provide no security of tenure and are generally more expensive in the long-term. One Vancouver researcher has estimated there were 4,726 Airbnb rentals listed in the City of Vancouver as of December 2015 (Sawatzky, 2016). As Sawatzky points out, there were 136,135 renter households in the City of Vancouver according to the 2011 National Housing Survey, meaning as much as 3.5 percent of the city's potential rental stock that has effectively been converted to short-term rental listings that often appeal to tourists rather than residents. In addition to the Airbnb crunch on rental housing, Vancouver Urban Planner Andy Yan estimates that 58,229 units of housing are either empty or occupied on a temporary basis in Metro Vancouver as of 2011. That amounts to 6.1 percent of the region's housing supply that doesn't house full- time residents, with 87 percent (upwards of 50,000) of these units completely unoccupied (Yan, 2016; Ferreras, 2016). The implications of these temporary rental units and unoccupied dwellings are inflated rental market prices and precarious housing

Table 111-0004 - Neighbourhood income and demographics.

arrangements that do not provide security of tenure while tens of thousands of dwellings sit empty. Meanwhile the city's 2016 homeless count found there were 1,847 people without permanent housing in Vancouver (Thomson, 2016).
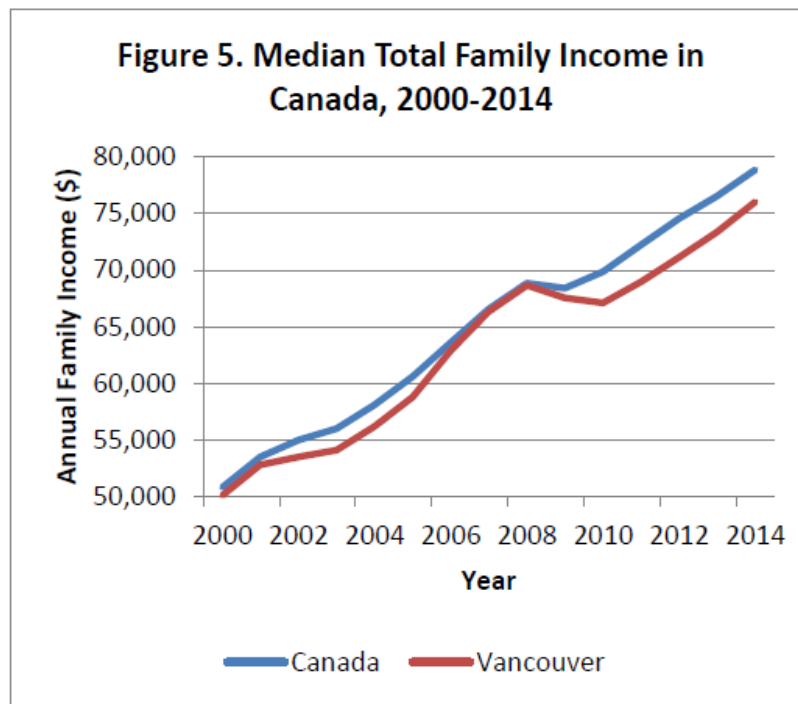
Source: Statistics Canada, 2016. CANSIM Table 111-0009.

Recalling Minister Morneau's remarks about the persistent 'job churn' young Canadian workers are currently experiencing, it is worth noting that annual incomes in Metro Vancouver have been some of the lowest in the country on average, and consistently below the national average since the turn of the millennium (see Figure 5). Moreover, the data in Figure 6 shows that while full-time employment from 2006 to 2015 was somewhat volatile, part-time employment was much more so, illustrating how unstable this type of precarious employment can be.

More interesting though is the change of these employment types over the same ten-year period, as seen in Figure 7 below. During this time, full-time employment in Metro Vancouver rose by 11.60 percent, whereas part-time employment rose by 19.73 percent (Statistics Canada, 2016e). Additionally, as illustrated in Figure 8 below, we can see that British Columbian temporary workers earned roughly two-third the average annual wage that their permanently employed counterparts did over the ten-year period from 2006-2015 (Statistics Canada, 2016c). Both the increase in part-time labour and gap in earnings for temporary workers illustrate the instability and inequality of these employment types, making it clear that precarious work is on the rise in Vancouver. Of course, these figures do not account for the informal work that is also occurring.
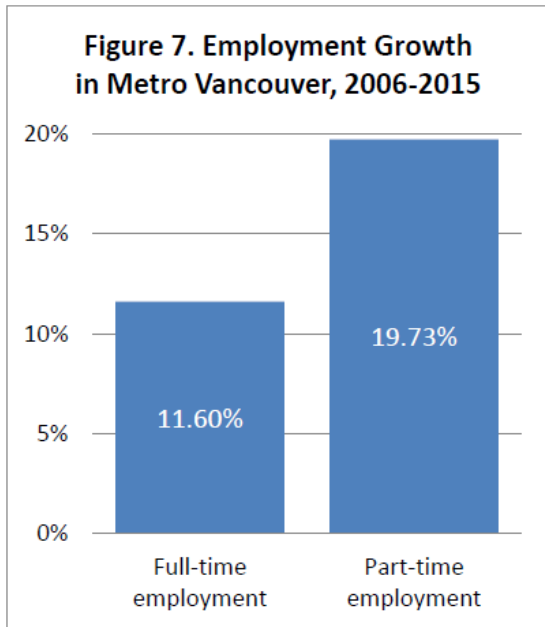
Figure 6. Annual % Change in Employment, 2006-2015 Vancouver (CMA)

Source: Statistics Canada, 2016. CANSIM Table 282-0129.

Figure 7. Employment Growth in Metro Vancouver, 2006-2015

Source: Statistics Canada, 2016. CANSIM Table 282-0129.

Figure 8. British Columbians' Weekly Income, 2006-2015 (Annual Average)
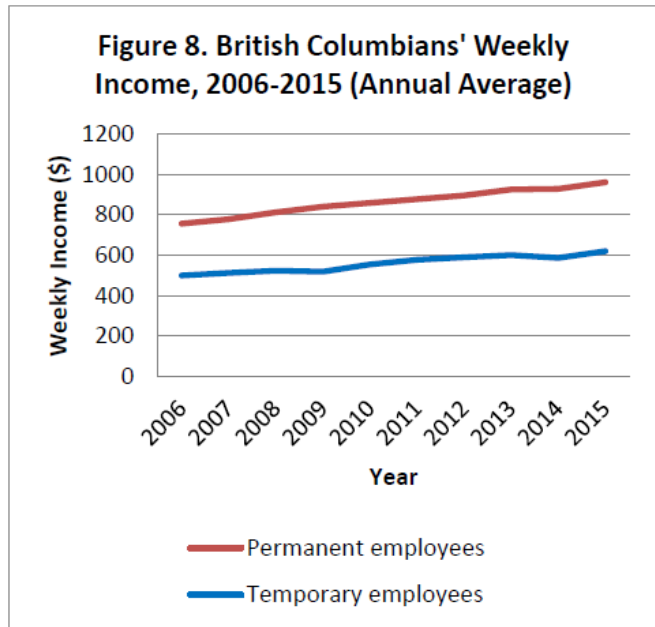
Source: Statistics Canada, 2016. CANSIM Table 281-0063.

POLICY RESPONSES TO PRECARITY

As precarity continues to grow in Vancouver—and elsewhere—a number of policy responses and local economic development strategies are being implemented. In Vancouver, the Downtown Eastside Community Economic Development Strategy is seeking to formalize workers in the informal economy through a series of quick-start projects with community partners suggested by the local Business Improvement Association. For example, bottle pickers have begun to formalize their activities under projects like *United We Can* and *The Binners Project*. Similarly, informal waste pickers in Bogotá, Colombia were formally acknowledged as public service providers in 2013. This is a strong example of the benefits formalizing can have, such as enabling the government to collect taxes, creating institutional partnerships, and strengthening workers' identities and their ability to organize (UN-Habitat, 2015b; Informal Economy Monitoring System, n.d.).

There has been support for citizens' right to the city in many parts of the world, where residents without adequate housing have found alternative housing solutions (e.g. slums, squatting), but such methods have not yet taken hold in North America. Since there seems to be little political will to ban housing speculation (i.e., the act of purchasing a dwelling with no intention of living in it to allow for a quick resale), a common sense—albeit somewhat radical—solution to the housing crisis facing many precarious Vancouverites that would also utilize some of the region's more than 50,000 empty housing units is to formalize squatting. The UN has long-acknowledged the right to adequate housing as a basic human need, and during a housing crisis, formalizing squatting can be seen as a social benefit (UN Habitat).[10] Similarly, a framework for the formalization of housing sites composed of temporary dwelling structures (often known as 'tent cities') should be implemented, if even on a long-term temporary basis, as has been done in cities across the United States, including Vancouver's neighbours Seattle, WA (Beekman, 2016) and Portland, OR (Mosher, 2010). Formalization has the potential to improve health and safety standards, and although numerous tent cities have appeared in Vancouver and Victoria, BC, none of them seem to have long-term vitality (Brown & Larkin, 2016).

Finally, to combat the employment instability many have experienced since the 2008 global financial crisis, a number of scholars are calling for a revised social safety net for precarious employment. In Canada, this includes the first comprehensive analysis of the Manitoba Mincome project published by Evelyn Forget in 2011 along with a handful of Canadian provinces publicly raising interest in exploring the opportunities basic minimum income has to offer. Throughout 2016 a number of provincial governments were exploring basic minimum income pilot projects, including Ontario, Quebec, and Prince Edward Island , the latter in conjunction with the federal government ("P.E.I. MLAs effusive in their support for basic-income pilot project," 2016). The Manitoba Liberals also campaigned with a commitment to pilot testing a basic minimum income as part of their platform in the 2016 provincial election ("Manitoba Liberals to pilot minimum income project if elected," 2016). In the end however, the party was not elected.

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[10] For a successful model of formalized squatting, see the law of adverse possession in Sao Paulo, Brazil, where citizens' right to the city trumps those of absent landlords.

CONCLUSION

This paper has highlighted how contingent work, the sharing economy, part-time and temporary employment, Airbnb, empty homes, fixed-term leases, and tent cities are all associated with the phenomenon of precarity. This analysis defined formal and informal precarity and explored the socio-economic, health, and legal impacts of living in precarious environments. As precarity rises, it is imperative to further explore the impacts of formalizing precarious work and housing because it legitimizes the precariat and their activities, thereby increasing health and safety measures and more specifically, allowing young people to feel confident in their long-term planning. While the long-term goal should be to eliminate precarity in all forms, short-term policy instruments should be developed to mitigate the detrimental effects to health and safety that ongoing precarity gives rise to. Programs such as basic minimum income, in conjunction with existing social programs, and the formalization of temporary alternative housing could potentially provide dignified solutions to the rise in precarity Canada—and the rest of the world—is currently experiencing.

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Getting Beyond Boom and Bust: Policy Arguments for the Economic Sustainability of the Northwest Territories

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ABSTRACT

Canadian provinces and territories reliant on natural resource extraction are vulnerable to national and global economic fluctuations, which negatively impacts their economic growth and capacity to maintain quality programs and services for residents. The result is a depressed economy, greater net-debt to GDP ratio, population loss and ultimately, a declining standard of living. This paper charts the precarious fiscal situation facing the Northwest Territories and argues for a multidimensional policy strategy designed to ensure its long-term sustainability in a post-resource world. The author analyzes the scope and nature of the problem, identifies the strengths and limitations of the fiscal policy instruments available to the government, and then proposes a three-part strategy that incorporates elements of technological innovation in service delivery, strategic intergovernmental relations and advancements in land claim agreements with Indigenous governments. The author also considers the rhetorical or argumentative discourse the government might employ to make its business case to the federal government. The purpose of the author's policy analysis is to propose a shift in emphasis in the way regional governments plan for and manage their economic futures, as well as to highlight the linkages between governments, Indigenous and otherwise, that could yield surprising results for economic development. Resource extraction, an inescapable foundation of most regional economies in Canada, is unsustainable in the long-term. Modern approaches to policy development, which include investments in technology, innovation and capacity-building, represent an important way in which regional governments might overcome their conundrum. The author concludes that ensuring a prosperous future for the territory hinges on 1) successfully persuading the federal government to invest in the north and 2) working alongside Indigenous governments to increase their capacity for self-government and economic development. The strategy put forward in this paper has broader implications and utility for regional governments throughout Canada.

Introduction

Since the 1930s, the Northwest Territories (NWT) economy has been dominated by resource extraction. Mining has shifted from base metals, such as uranium and gold, to diamonds, now its biggest industry. Diamond mines are now maturing, and the looming economic consequences echo the disappearance of the gold mines in the early 1990s. With its hands tied, the Government of the Northwest Territories (GNWT) will need novel ideas to adapt to its coming fiscal situation. Like many governments, it must do more with less.

Achieving economic sustainability involves a mixture of fiscal policy, technology, innovation and intergovernmental relations. To unpack this complex issue, I examine, in Part I, the economic outlook of the NWT and the government's fiscal position. Part II summarizes and assesses the current government's response. Part III analyzes the effectiveness of fiscal policy options available to the government. Part IV builds on this analysis and proposes three recommendations for the GNWT: 1) innovate service delivery; 2) align with the federal Advisory Council on Economic Growth; and 3) complete unsettled land claim agreements. Part V reviews the literature on northern extractive economies and offers a concluding discussion.

In addition to the proposed recommendations, a central component of this paper, woven

throughout, is a discussion of the arguments, economic and otherwise, that the GNWT might employ to achieve its objectives.

The Northwest Territories. The NWT has a population of 44,381 (2017). 50% of the population is Indigenous. Yellowknife, the capital, has roughly 21,000 residents and is 24% Indigenous. The majority of its other 32 communities are Indigenous.[1]

Part I: Economic Outlook and Fiscal Position

The economic outlook over the next 5 years is mixed at best. The effects of the economic and financial crisis of 2008 continue to be felt. Growth has slowed to 2.8% a year, real GDP is 7.5% lower than the five-year average before 2008 and the next 5 to 15 years will see a protracted decline in resource production.[2] Identified resource development projects will not replace the economic activity of

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[1] Northwest Territories Bureau of Statistics, www.statsnwt.ca, 2017.

[2] Government of the Northwest Territories, *Passing the Mace: Recommendations to the 18th legislative Assembly*, Report of the Special Committee on Transition Matters, October 2015, http://www.assembly.gov.nt.ca/sites/default/files/td_353-175.pdf, 1.

current operations.[3]

Growth is concentrated in the diamond industry. Resource extraction accounts for 1/3 of GDP.[4] No production is planned past 2031, and beyond 2023 all diamond mines will begin closing as resources are exhausted.[5] The result is a flat revenue outlook, meaning less money to sustain programs and services. In the medium-term, expenditure growth is projected to increase, causing the projected surplus to fall from $147 million in 2015-16 to $13 million by 2019-20.[6]

Resource Revenue Forecasts
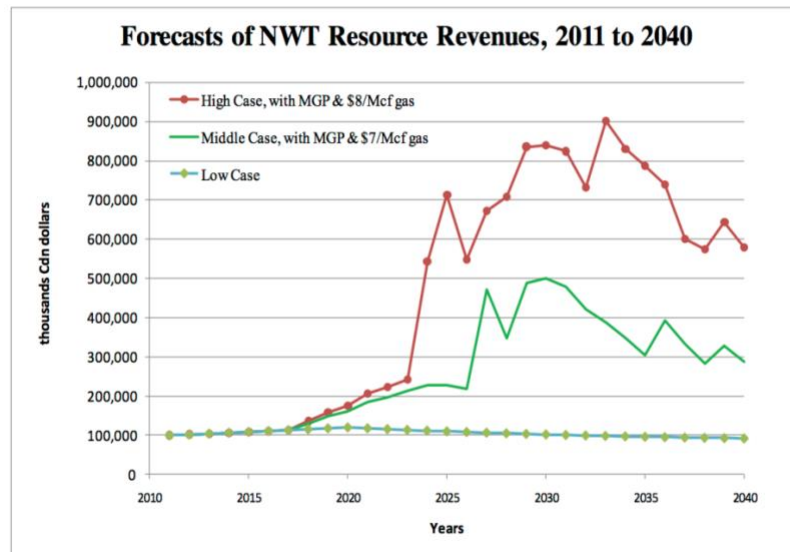
Source: Peter Eglington and Lew Voytilla[7]

The economy is inextricably linked to global commodity prices, which, with the current slump in prices, magnifies downward pressure on the economy.[8] Potential new mines are struggling to obtain financing, low oil prices have depressed oil and gas activity, and new exploration projects have been put on hold.[9] Compared to peak production in 2001, real GDP in the oil and gas sector is down by two-thirds as of 2014.[10]

As the diamond industry contracts, so too will other sectors tied to its prosperity. Research

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[3] *Ibid*.

[4] Northwest Territories Bureau of Statistics, *2015 Gross Domestic Product*, http://www.statsnwt.ca/economy/gdp/.

[5] *Passing the Mace*, 4.

[6] *Ibid.*, 22.

[7] See Peter Eglington and Lew Voytilla, *Report re Fiscal and Self-Government Issues in Connection with Devolution*, February 2011, http://www.assembly.gov.nt.ca/sites/default/files/11-02-28_td158-165.pdf, v. This chart considers resource revenue projections with and without the completion of the Mackenzie Gas Project (MGP).

[8] *Passing the Mace*, 2.

[9] *Passing the Mace, 2*.

[10] *Ibid.*, 5.

shows that in the Canadian north, the most significant economic impacts tied to mine closures are not the closures themselves, but rather the induced effects related to economic and demographic shifts in the household sector followed by consumption.[11] In the NWT, ripple effects will occur elsewhere, including in construction, transportation, wholesale and retail trade and real estate. Construction and transportation companies will likely see a decline in profits. Residents can expect the housing market, currently marked by high prices and limited availability, to cool off as more people leave and fewer move north.

Population growth has also been flat over the last decade.[12] This is problematic, in part, because the Territorial Formula Financing (TFF) transfer from the federal government accounts for a whopping 68% of government revenues and is calculated primarily on the basis of population.[13] As the population stagnates, so too does the value of this crucial transfer. The population is also aging—the number of children aged 5 to 18 years is declining and the number of persons aged 60 and up is increasing.[14]

The government must steer the economy in a direction that allows it to remain an attractive place to live and work. But resource reliance, while unavoidable to a certain and perhaps large extent, is unsustainable. The so-called "resource curse", which reports a negative association with mining and economic development, has been well-documented. As the literature suggests, however, context-appropriate management of resource revenues can lead to positive economic development.[15] The next section will briefly summarize and assess the current government's approach to this situation.

Part II: Current Government Strategy

The Minister of Finance's mandate letter commits to "responsible spending and prudent and affordable debt management to ensure the long-term fiscal sustainability of the government."[16] In 2015, the government introduced the Fiscal Responsibility Policy (FRP), requiring operating cash surpluses to pay down debt and at least half of the annual capital budget to be funded by cash from operating surpluses.[17] Among other things, the Minister of Finance is responsible for implementing a new *Financial*

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[11] Andrey Petrov, "Post-staple bust: modelling economic effects of mine closures and post-mine demographic shifts in an arctic economy (Yukon)", *Polar Geography 33(2)* (2010), 55. This paper examines the phenomenon of post-staple shock occurring in the Yukon after mine closures in the 1990s.

[12] Population growth measures a response to economic growth and provides a base for further growth through economic diversification. See *Passing the Mace*, 11.

[13] Peter Eglington and Lew Voytilla, 3.

[14] *Passing the Mace*, 14.

[15] See Graham A. Davis and John E. Tilton, "The resource curse", *Natural Resources Forum 29* (2005), 233. See also generally Jeffrey D. Sachs and Andrew M. Warner, "Natural resources and economic development: The curse of natural resources", *European Economic Review 45* (2001): 827-838.

[16] Government of the Northwest Territories, *Ministerial Mandates: 18th legislative Assembly*, March 2016, http://www.gov.nt.ca/sites/default/files/documents/Ministerial%20Mandates.pdf.

[17] Government of the Northwest Territories, *Fiscal Responsibility Policy*, 2016, http://www.gov.nt.ca/sites/default/files/documents/15.03%20Fiscal%20Responsibility%20Policy.pdf.

Administration Act to improve overall fiscal responsibility. The previous government also established a heritage fund for future generations.[18]

Regarding the economy, the mandate of the government commits to, broadly speaking, investments in infrastructure, investments in renewable resources, efforts to increase population and immigration and efforts to reduce the cost of living.[19] It also commits to renewing its federal engagement strategy and settling outstanding Land Claim Agreements. The government is guided by the Mineral Development Strategy[20], the Economic Opportunities Strategy[21] and a 2015-2040 Transportation Strategy[22].

The right priorities have been identified, but more is needed. In exploring the linkages between the resource curse and economic sustainability, scholarship has advocated for a policy of prudently saving and investing rents from resource extraction.[23] The GNWT's approach achieves this. But a distinction should be drawn between responsibly managing the benefits of resource extraction and acting sustainably to plan for the absence of resource revenues in the future.

To this end, the GNWT must also respond by reducing costs, securing additional revenue streams and growing the economy and population. This is no easy task. Given fiscal opportunities and limitations, addressed next, the economic future of the NWT hinges on its ability to persuade other governments and stakeholders to complement its own policy objectives. The GNWT's current strategy would therefore benefit from incorporating the arguments proposed in Part IV to advance these goals.

Part III: Fiscal Policy Options and Prospects

The recommendations in Part IV are tailored to the NWT's fiscal context and policy options. Understanding the opportunities and limitations of these options in an arctic economy is therefore essential. The structure of the NWT's economy is typical of other arctic economies. These trademark characteristics include a formal economy based primarily on large-scale resource production, a secondary economy comprising traditional activities and small scale/family resource production, and transfers from higher levels of government supporting consumption through public sector jobs, direct payments to residents and provision of services.[24]

In this fiscal and economic context, the GNWT's primary fiscal policy instruments are taxes,

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[18] *Northwest Territories Heritage Fund Act*, Statutes of the Northwest Territories, 2012, https://www.justice.gov.nt.ca/en/files/legislation/nwt-heritage-fund-act/nwt-heritage-fund-act.a.pdf.

[19] Government of the Northwest Territories, *Mandate of the Government of the Northwest Territories 2016-2019*, 2016, http://www.assembly.gov.nt.ca/sites/default/files/td_29-182.pdf.

[20] Government of the Northwest Territories, *Mineral Development Strategy*, 2013, http://www.iti.gov.nt.ca/sites/www.iti.gov.nt.ca/files/nwt_mineral_development_strategy.pdf.

[21] Government of the Northwest Territories, *Economic Opportunities Strategy*, 2013, http://www.iti.gov.nt.ca/sites/www.iti.gov.nt.ca/files/0004-704_econ_opp_strat_-_low-res.pdf.

[22] Government of the Northwest Territories, *Transportation Strategy*, 2015, http://www.dot.gov.nt.ca/Projects/Future_Projects/Strategy.

[23] Giles Atkinson and Kirk Hamilton, "Savings, Growth and the Resource Curse Hypothesis", *World Development 31(11)* (2003), 1793.

[24] Stefansson Arctic Institute, *Arctic Human Development Report*, 2004, 164.

government expenditure and cuts to programs and services. I examine each in turn, and then base my recommendations on the most effective tools available.

Taxes

The GNWT is in a bind when it comes to taxes. The cost of living is incredibly high already, which contributes to a declining population. Residents leave the territory because it is unaffordable. Raising taxes is therefore not a viable instrument for own source revenue generation as it reinforces these trends. As discussed above, the TFF is partially calculated based on population. It is critical to preserve this revenue stream. The tax base is also too small to raise enough to fund programs and services. Even a large tax increase would not yield a proportional increase in total revenue.[25] The cost of business is already very high, so a corporate tax would also be detrimental.[26]

Government Expenditure

Government expenditure is a viable tool for stimulating economic growth. In 2015, the federal government approved an increase in the GNWT's borrowing limit from 800 million to 1.3 billion.[27] Expenditures are still constrained by the FRP. Given the uncertain economic forecast, the FRP is a prudent choice and should remain. Infrastructure projects must be enabled within the framework of fiscal responsibility. The government must borrow to spend, but it must also avoid unsustainable levels of debt. The solution to this shortfall, as the second recommendation will discuss, is to identify and access collaborative investment models with other levels of government where shared interests exist.

Cuts to Programs and Services

Increasing expenditure growth combined with flat or declining revenue will squeeze operating surpluses.[28] Pressure will build from ongoing demand for government programs and services. As the 17th Assembly's recommendations to the 18th advise, "[m]eeting these demands from within fiscal targets will require difficult decisions, including possibly changing the mix of programs and services the GNWT delivers."[29] It may prove necessary for the GNWT to scale back, but it should do so cautiously. As the first recommendation will argue, there may be ways to reduce costs without compromising availability of service.

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[25] *Passing the Mace*, 19.
[26] R. Weijermars, "Natural resource wealth optimization: A review of fiscal regimes and equitable agreements for petroleum and mineral extraction projects," *Natural Resources Research 24* (2015), 386.
[27] *Passing the Mace*, 22.
[28] *Ibid*.
[29] *Ibid*.

Part IV: Recommendations

<u>1) Reduce costs by redesigning and revolutionizing the way government delivers services</u>

Scaling back programs and services will further diminish the appeal of living in the territory. The GNWT, where possible, needs to deliver the same quality of programs and services for less money. Matthew Mendelsohn, Deputy Secretary to the Cabinet (Results and Delivery) in the Privy Council Office, suggests three ways a government might approach this goal:[30]

A) Adopt a fiscal lens for otherwise non-fiscal policy choices. The GNWT should apply a rigorous fiscal lens to ordinary policy decisions that in the past were not thought of as fiscal items. This would involve wide ranging and comprehensive fiscal reviews to identify duplication and inefficiency. Anything from sports camps to medical transfers could qualify.

B) Streamline bureaucratic processes. The GNWT should conduct whole-of-system reviews that include other levels of government, including Aboriginal governments, in order to harmonize functions. The NWT has a complex system of multilevel governance tied together by automatic financing mechanisms.[31] Streamlining is about more than just cutting excess; it also attempts to improve governance through more direct lines of decision-making and information transfer. The amalgamation of multiple health authorities into a single territorial authority is a case in point.

C) Embrace technological innovation in service delivery. Reducing costs without compromising quality requires replacing cumbersome mechanisms with more efficient models. As Mendelsohn argues, "governments should apply a transformative lens to the choices they face, choosing those investments that are likely to transform the way government works so as to ensure fiscal sustainability over the medium and long-term."[32] Single window service centres in remote communities, in which a single office becomes a one-stop shop for all community services, is one such example of success through innovation.[33]

The principle objection to this approach is that adopting a fiscal lens and streamlining bureaucracy will erode the quality of services that cannot be measured in dollars and cents. However,

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[30] Matthew Mendelsohn, *Shifting gears: Paths to fiscal sustainability in Canada* (Toronto, Mowat Centre for Policy Innovation: 2010).

[31] "Aboriginal multilevel governance is characterized by growing interdependencies between Aboriginal and non-Aboriginal governing actors, leading to a partial displacement of formal rules of authoritative decision-making in favor of joint decision-making processes and negotiated solutions to policy disputes." See Martin Papillon and André Juneau, *Canada: The state of the federation 2013: Aboriginal multilevel governance* (Montreal, Institute of Intergovernmental Relations, School of Policy Studies, Queen's University, McGill-Queen's University Press: 2013).

[32] Mendelsohn, 12.

[33] Government of the Northwest Territories, "Bob McLeod: Single Window Service Centres Wins Institute of Public Administration of Canada Award," accessed December 11, 2016, http://www.gov.nt.ca/newsroom/bob-mcleod-single-window-service-centres-wins-institute-public-administration-canada-award.

this recommendation asks only that the GNWT seek efficiency where quality can be preserved. It emphasizes finding ways to deliver the same service, or even improving that service, with less expenditure. Recall that the NWT must remain an attractive place to live, work and raise a family. Technology will be instrumental in this process, as fiscal and bureaucratic efficiency has only a moderate window of reduction before services are negatively impacted.

Narrative

To advance this goal, the GNWT will need a strategic communications plan that renders fiscal sustainability palatable to the public. The message could be that government is pursuing ways to reduce costs without cutting programs and services. It is using taxpayer money more efficiently and planning for the long-term sustainability of the territory. It is investing in becoming more flexible and responsive to the needs of residents.

The argument could also be framed in terms of the need for government to combat increasing expenditures in preparation for impending mine closures. This re-frames the issue as an opportunity to innovate, revolutionize and redesign the way government delivers services to the public. Mendelsohn observes, "governments should look at their need to reduce spending as an opportunity to capitalize on new technologies, governance models and financing mechanisms that can help re-shape government."[34] Redesigning service delivery through technological innovation could significantly reduce costs associated with vast geographical distances.

2) Align government objectives with the federal Advisory Council on Economic Growth

In March 2016, the federal Minister of Finance established the Advisory Council on Economic Growth (the Council) to develop policy actions for economic growth.[35] The GNWT should recalibrate its federal engagement strategy to align with the objectives of the Council in order to maximize potential for cooperative projects. The importance of federal subsidies for resource development and infrastructure projects cannot be overstated.[36] If the federal government is persuaded that territorial projects further its own objectives, cooperative funding models can be secured for otherwise unfunded projects. The Council's recommendations are as follows:

Infrastructure

The Council recommends "investing strategically in infrastructure to stimulate the economy, and create opportunities down the line for more investment in other and social and environmental

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[34] Mendelsohn, 25.

[35] Advisory Council on Economic Growth, *The Path to Prosperity: Resetting Canada's Growth Trajectory*, 2016, http://www.budget.gc.ca/aceg-ccce/pdf/summary-resume-eng.pdf.

[36] Gabrielle Slowey, "The Northwest Territories: A New Day?" in *Transforming Provincial Politics: The Political Economy of Canada's Provinces and Territories in the Neoliberal Era*, edited by Bryan M. Evans and Charles W. Smith (Toronto, University of Toronto Press: 2015), 359.

projects."[37] Specifically, it states "improve quality, accessibility and sustainability of infrastructure services, in order to promote economic development in First Nations communities as well as in rural and northern regions."[38] The GNWT should focus on this particular alignment when negotiating. Securing federal funding for infrastructure will allow the GNWT to stimulate the economy without compromising the FRP and its prudent debt management approach.

Immigration

The Council recommends increasing annual immigration from 300,000 to 450,000 over 5 years.[39] Population growth is critical to economic growth, prosperity and productivity. This alignment can satisfy two policy objectives simultaneously: the federal government's, as recommended by the Council, and the NWT's issue of population stagnation. The GNWT should negotiate with the federal government to align processes such that additional immigrants are resettled in areas of need in the NWT's labour market.

Foreign Direct Investment (FDI)[40]

The Council recommends that the federal government encourage more FDI to "turbo-charge Canadian businesses and help fund infrastructure and innovation."[41] It suggests creating a "one stop shop" that acts as a concierge service to help facilitate FDI. Since private investment has slowed significantly in the territory, the GNWT should highlight where opportunities for investment exist and create a prospectus that foreign investors can readily access when using this concierge service.

Critics might raise two concerns: 1) the GNWT should not rely on unconfirmed federal investments and projects, and 2) by altering its strategic approach based on the federal government of the day, the GNWT is vulnerable to a regime change with different priorities in the future. No part of this recommendation advocates for up-front territorial investments that assume similar federal investments will follow. Rather, it is about engaging in a persuasive dialogue with the federal government on shared priorities to capitalize on and complement the federal government's mandate. Joint initiatives would be launched simultaneously and in partnership. In the event of future regime change, the GNWT would be free to simply re-evaluate its federal engagement strategy at such a time.

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[37] Advisory Council on Economic Growth, *Unleashing Productivity Through Infrastructure*, 2016, http://www.budget.gc.ca/aceg-ccce/pdf/infrastructure-eng.pdf.

[38] *Unleashing Productivity Through Infrastructure*, 7.

[39] Advisory Council on Economic Growth, *Attracting the Talent Canada Needs Through Immigration*, 2016, http://www.budget.gc.ca/aceg-ccce/pdf/immigration-eng.pdf.

[40] "FDI is a critical driver of economic growth. In any economy, new investment by foreign firms can help raise productivity, competitiveness and living standards over the long term." See Advisory Council on Economic Growth, *Bringing Foreign Investment to Canada*, 2016, http://www.budget.gc.ca/aceg-ccce/pdf/foreign-investment-investisseurs-etrangers-eng.pdf, 1.

[41] *Ibid*.

Narrative

The Council's recommendations parallel The GNWT's opportunities for economic growth. The GNWT should also draw on other arguments relevant to federal objectives when framing the conversation. For example, the GNWT might advance the argument that more economic activity and population will legitimize Canada's Arctic sovereignty claims. Areas like the Beaufort Sea, rich in resources and increasing accessible due to climate change, continue to be disputed. Many foreign governments view Canada's claims to sovereignty as merely token interests.[42]

Secondly, the GNWT should emphasize that the mandate of the Minister of Indigenous and Northern Affairs commits to promoting economic development and creating jobs for Indigenous peoples.[43] The shared funding model used in the construction of the Inuvik-Tuktoyaktuk highway is a good example of this. Most of the territory's communities would benefit immensely from road access. The federal government has ambitious goals with respect to Indigenous peoples, so the GNWT should appeal to these shared priorities in as many ways as possible.

3) Finalize remaining Land Claim Agreements

Lastly, the GNWT should increase efforts to finalize outstanding land claim agreements and establish additional Indigenous multilevel governance arrangements.[44] This would create a stable investment environment and provide certainty for government and industry alike. "Settled land claim agreements provide certainty…which…yields local and regional economic growth, employment and terms of engagement for governments and access to land use."[45] This is already on the government's radar; however, the importance of this step must be underscored. There are good reasons for prioritizing this above other commitments:

First, in 1974, the Berger Inquiry called for a moratorium on mineral development and exploration until all land claims were settled.[46] Justice Berger's findings highlight the importance of political stability to equitable resource development. Second, it would complement efforts to streamline bureaucratic processes by increasing reliance on multilevel governance networks and decentralizing service delivery. Third, strengthening Indigenous self-government in the territory lends weight to the GNWT's arguments that the federal government should provide additional assistance through

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[42] Jennifer Parks, *Canada's Arctic Sovereignty: Resources, Climate and Conflict* (Edmonton: Lone Pine Publishing: 2010), 55.

[43] Government of Canada, *Mandate of the Minister of Indigenous and Northern Affairs*, 2015, http://pm.gc.ca/eng/minister-indigenous-and-northern-affairs-mandate-letter.

[44] "The emergence of new regional governance actors, including the Inuvialuit Settlement Region in the Northwest Territories, necessitates a re-evaluation of traditional federal structures and intergovernmental processes that have been used to explain administration in the Arctic." See Gary N. Wilson, Christopher Alcantara and Thierry Rodon in "Multilevel Governance in the Inuit Regions of the Territorial and Provincial North," In Martin Papillon and André Juneau, *Canada: The state of the federation 2013: Aboriginal multilevel governance* (Montreal, Institute of Intergovernmental Relations, School of Policy Studies, Queen's University, McGill-Queen's University Press: 2013), 43.

[45] *Passing the Mace*, 17.

[46] Slowey, 357.

infrastructure investment and capacity-building.

Of course, settling outstanding land claim agreements carries no promise that sustainable economic development will follow. Land claim beneficiaries could choose to stonewall development projects, and greater certainty provides little respite if suppressed commodity prices are discouraging exploration and development in the first place. However, the success of the Inuvialuit's business initiatives under the Inuvialuit Final Agreement (IFA), including its development and investment corporations, indicate that Indigenous governments are well situated to develop and expand their business interests. Beyond continued reliance on the extractive resource industry, stronger Indigenous self-government, *a priori*, improves the sustainability of the territory by entrenching Aboriginal rights under section 35(1) of the Constitution and thus increasing the federal government's fiduciary obligations in the region.

Narrative

Historically, there have been major differences in Indigenous governments' willingness to compromise on treaty agreements.[47] Interim land withdrawals hinder growth and complicate would-be development projects and conservation zones. The politics of natural resource extraction creates division among these groups.[48] But negotiations do not have to be a zero-sum game. Settling land claims should be viewed as a vehicle for both respecting Aboriginal rights *and* creating a stable environment for investment and business (including Indigenous businesses). For example, Berger argues that land claim agreements have "made Aboriginal peoples major landowners and significant players in the economy."[49] Land claims are the first step in decolonization. At the same time, they create space for Indigenous governments to improve education and employment outcomes, increasing economic potential.[50]

As land claims are finalized, the capacity to govern and participate in economic activity should accompany the transfer of legal authority. The GNWT, the federal government and Indigenous governments must collaborate to achieve this through infrastructure investment and collaborative governance models. The effect is twofold. First, economic growth is stimulated outside of the capital, reducing regional inequality and unemployment. And second, the more entrenched Indigenous governance and economic activity becomes in the NWT, the greater its case for continued financial assistance and support from the federal government.

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[47] Kirk Cameron and Graham White, *Northern Governments in Transition: Political and Constitutional Development in the Yukon, Nunavut and the Western Northwest Territories* (Montréal: Institute for Research on Public Policy: 2000), 42.

[48] Slowey, 360.

[49] Thomas R. Berger, "Keep it up: Land use planning: Land claims and Canada's North", in *Canada's North: What's the Plan?* edited by Thomas R. Berger, Steven A. Kennett and Hayden King (Ottawa: Conference Board of Canada: 2010), 29.

[50] *Ibid*., 34.

Part V: Getting Beyond Boom and Bust?

On its current path, impending mine closures will force the NWT to look beyond extractive industries to ensure its long-term economic viability. Perhaps this is a good thing. The effects of a bust cycle can be particularly severe for Indigenous peoples.[51] Moreover, the regional benefits of resource development are limited, with most of the income flowing to non-Northern owners of the capital and skilled labour residing outside the region.[52] But is economic sustainability even possible in a region with few alternatives?

Scholarly debate on this question is divided. Some argue that sustainability means changing the exploitative nature of mining through negotiating economic and social agreements between industry, government and communities. Others argue for co-management between Indigenous and non-Indigenous actors.[53] More recent scholarship adopts the perspective that natural resource reliance is acceptable provided that regional actors are poised to manage the benefits appropriately and sustainably.[54] None of these perspectives solves the conundrum at the heart of the matter: the underlying structure of the arctic economy.

A notable exception is the concept of the "social economy", which advocates for a strategy to develop and enhance the vitality and social and educational capital of northern communities through organizations that are more directly controlled by the communities themselves.[55] The social economy is primarily concerned with serving the social goals of communities based on participatory democratic principles. It is premised on the idea that northern economies are service sector communities that benefit from hunting, fishing and other traditional activities.

Fortunately for the GNWT, developing a sustainable economy in the medium-term need not be an either/or scenario that embraces one of the above approaches while ignoring others. It can follow the recommendations outlined in this paper to responsibly manage its current fiscal situation while preparing for future mine closures. At the same time, it can invest in initiatives to diversify its economy while propping up the social economies of communities. Most importantly, it can take solace in the security of the TFF transfer, the single largest contributor to government revenues. Pursuing a multidimensional policy strategy that weaves these disparate considerations together is the territory's

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[51] See Mark Buell, "Resource Extraction Development and Well-Being in the North: A Scan of the Unique Challenges of Development in Inuit Communities", *Ajunnginiq Centre*, 2006, x-xi. For a nuanced discussion weighing the positive and negative impacts of mining on Indigenous communities, see Colleen M. Davison and Penelope Hawe, "All that Glitters: Diamond Mining and Tłı̨chǫ Youth in Behchokǫ̀, Northwest Territories", *Arctic 65(2)* (2012): 214-228.

[52] Chris Southcott and Lee Huskey, "Resource Revenue Regimes around the Circumpolar North: A Gap Analysis", *Resources and Sustainable Development in the Arctic Gap Analysis Report #4*, 2013, 2.

[53] For a critique of the neoliberal agenda of the mining industry, and the scholarly debate surrounding the evolution of this agenda on more sustainable and equitable terms, see Karen Everett and Heather Nicol, "Economic Development, Indigenous Governance, & Arctic Sovereignty", *Arctic Yearbook* (2014), 9-10.

[54] See generally Chris Southcott, "Resource Development and Northern Communities—An Introduction", *The Northern Review 41* (2015), 3-12.

[55] Chris Southcott, "Introduction: The Social Economy and Economic Development in Northern Canada", *The Northern Review 30* (2009), 4.

best plan for a sustainable future.

Conclusion

The NWT has time to plan for mine closures and the narrowing surpluses that come with it. The NWT's economic standing is still relatively strong compared with the provinces. In 2013-2014, net debt to GDP was only 9.5%, though this increased to 20.3% in 2014-2015.[56] With minimal own source revenue, the critical variable keeping the territory afloat is federal transfers. As population stagnates alongside the TFF, the NWT's ability to persuade the federal government to continue, or perhaps increase, its support is vital.

The recommendations outlined here are designed to work in concert with one another for the economic development and sustainability of the NWT. They are premised on the assessment that, based on the GNWT's fiscal opportunities and limitations, fiscal responsibility, innovation and strategic investments are the most effective tools at the government's disposal in a post-resource world.

The GNWT will need to innovate service delivery, invest in infrastructure and create a politically and economically stable environment by finalizing unsettled land claim areas. Doing so will position the territory to persuade other levels of government to contribute to its long-term sustainability. These arguments should emphasize shared economic objectives, the need for more legitimate claims to arctic sovereignty and the importance of capacity building for Indigenous self-government. The NWT has enormous potential—proven resource deposits, natural beauty and a diverse and culturally rich population. The key is to convince everyone else.

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[56] Government of the Northwest Territories, *Public accounts of the Government of the Northwest Territories for the year ended March 31, 2015*, 2015, http://www.fin.gov.nt.ca/sites/default/files/documents/public_accounts_2014-2015_-_section_i_ii_consolidated_non-consolidated.pdf.

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The Changing Landscape of Health Emergency Management

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ABSTRACT

In the 21st century, there are several different factors leading to an increased risk of crises, often with trans-boundary effects: increased population, an aging population, emerging infectious diseases and antibiotic resistance, and increased international travel and mobility. Exacerbated by climate change and urbanization, the mounting intensity, frequency and diversity of natural hazards worldwide has been resulting in significant negative impact on all people's health globally. Yet, the declining ecosystem health emerges as the greatest risk to our health, in particular for vulnerable populations. It is well documented that global burden of disease is disproportionately higher in low- middle-income-countries (LMICs) than in high-income countries (HICs), but inequities also exist within HICs, where vulnerable populations have significantly worse health outcomes than the larger population. Interactions between the social, economic and political spheres among others shape the social determinants in the urban setting, resulting in unique health outcomes and associated interventions. Without targeted interventions, health inequities are likely to continue to grow both globally and within high-income countries like Canada. Fortunately, health emergency management bolstered by good governance has the potential to help mitigate the detrimental effects of urbanization and globalization. We can start by addressing key factors such as climate-change related challenges, and with the support of social processes, healthier, equitable and sustainable communities can be achieved. Public health plays a critical role in developing and sustaining a broad approach to emergency management, encompassing prevention, mitigation, preparedness, as well as response and recovery services. Through intersectoral and interagency collaboration, health emergency management initiatives can overcome a variety of barriers to reduce current health inequities and prevent further divides.

The Changing Landscape of Health Emergency Management

In the 21st century, there are several different factors leading to an increased risk of crises, often with trans-boundary effects: increased population, an aging population, emerging infectious diseases and antibiotic resistance, and increased international travel and mobility. Exacerbated by climate change and urbanization, the mounting intensity, frequency and diversity of natural hazards worldwide has been resulting in significant negative impact on all people's health globally. Meanwhile, the awareness and recognition of the importance of promoting health as a major goal has been growing in the global community, demonstrated by three monumental agreements reached by world leaders in 2015: the Paris Climate Conference, the Sendai Framework for Disaster Risk Reduction 2015–2030, and the Sustainable Development Goals (SDGs). Across these three agendas, health was thrust forward into the spotlight.

Public health plays a critical role in developing and sustaining a broad approach to health emergency management, encompassing prevention, mitigation, preparedness, as well as response and recovery services (Campbell & Henry, 2013). By identifying the new landscape of risks, health emergency management initiatives can overcome a variety of barriers to reduce current health inequities and prevent further divides. Such a framework involves strategic management of many actors beyond primary health care, underlining the importance of inter-sectoral and interagency collaboration to bring together governments, civil society, and the international community, as well as the voluntary and

private sector (Burgess, 2007).

Much of the world's developing nations have populations largely below the poverty line, with poor infrastructure, minimal disaster surge capacity and weak public health systems; these populations are the most vulnerable to climate change and extreme weather patterns. Therefore, developing cities worldwide are at an especially high risk for deaths, diseases, disabilities and other health impacts that act as barriers to the progress of global health goals ("Emergency Risk", 2013).

While it is well documented that global burden of disease is disproportionately higher in low-middle-income-countries (LMICs) than in high-income countries (HICs), inequities also exist within HICs, where vulnerable populations have significantly worse health outcomes than the larger population (Patz et al., 2007). Within Canada, these disparities exist between the health of the lower and mid to high socio-economic populations. These differences cannot be attributed to a single factor – across the board people of lower socio-economic status have higher rates of health burden – but some have larger margins. Compounding this, there is also a large body of evidence to demonstrate that disasters particularly affect the poorest and most marginalized people, all the while exacerbating vulnerabilities and inequalities (PreventionWeb, 2015).

Considering the emerging risks and existing inequities, this paper aims to address the changing landscape of health emergency management in Canada and beyond by identifying risk factors associated with specific negative health outcomes linked to emergent events, and the possible implementation of effective and targeted interventions through public health. Ultimately, recognizing that inequitable differences are preventable has a huge effect on policy recommendations; whether these are accepted or instated is another (largely political / economical) issue.

Principles and Practice

Crises involve high levels of uncertainty, and are not managed by a mere increase in support services (Siebold, 2006). They require communication between many different actors and quick delegation of action. As it stands, large-scale disasters often overwhelm response capacities of the health care sector and beyond (Siebold, 2006). The scale of a disaster is a major factor in predicting an effective response: as no two disasters are similar, organizations cannot practically plan for all types of disasters (Siebold, 2006). However, there are common elements to all disasters, and preparing for these can significantly increase preparedness. Several factors that increase preparedness include developing a comprehensive emergency response plan; instating a well- articulated incident management system; supporting collaboration, coordination and open communication among community agencies and all levels of government; and providing education and training initiatives (Siebold, 2006).

On the other hand, traditional models and practices that focus on response and recovery often hinder efforts to implement lessons learnt and good practices. Fears of post-event economic losses and poor political ratings spur market growth, often hastily reconstructing a poor foundation with many fault lines (Siebold, 2006). In fact, the cost of downstream emergency practices are often more costly than upstream approaches, and the presence of disaster loss and damage is often an indicator of failed

development, unsustainable economic and social processes, and of ill-adapted societies (PreventionWeb, 2015). In light of this, the Hyogo Framework and the following Sendai Framework reflect a global shift away from disaster management and toward disaster *risk* management (PreventionWeb, 2015). Similarly, the focus of health emergency management should continue to be rerouted from response and recovery to prevention by means of resilient infrastructure through sound urban planning and health emergency management initiatives. The ability to understand, analyze and address the emerging risks to populations affected by emergent events is critical to foster health gains rather just mitigate the new concerns.

Risk Management

Disasters are an indicator of development failures, meaning disaster risk is a measure of sustainability of development, which can be affected by several risk drivers, including poverty and health inequities, rapid urbanization, climate change, and environmental degradation (PreventionWeb, 2015). It is important to understand "disaster risk requires us to not only consider the hazard, our exposure and vulnerability but also society's capacity to protect itself from disasters" (PreventionWeb, 2015).

Risk management can incorporate prevention policies and mitigation programs to reduce exposure and vulnerability through economic arguments to invest more in disaster risk reduction, resulting in a net gain of recovery versus response costs (Bosher, 2006). This preventive approach includes protective infrastructure, early warning systems, regulations on land use, and building codes, ultimately creating a resilient framework that equips a system, community or society with the ability to resist, absorb, accommodate and recover from hazards in a timely and efficient manner (Bosher, 2006). Resiliency also entails continuity of services, increasing capacity and reducing losses of production (Bosher, 2006). In this respect, governments play a crucial role in strengthening the resiliency of their communities and critical infrastructure networks. Furthermore, governments must maintain transparent and accountable crisis management all the while providing robust leadership (Bosher, 2006). To foster this development, government policies should support the "exchange of practice and experience to better deliver this fundamental role in an evolving context of trans- boundary risks" (p. 9), especially in the critical hubs of the global economy (Bosher, 2006).

Accordingly, pre-crisis planning is the most important stage of health emergency management. During this time, it is essential to identify resources, develop training plans, foster alliances with stakeholders, and develop and test communication systems (CDC, 2014). Crisis management policies and practices should focus on key public governance issues inclusive of overall crisis governance framework, establishing the role of science and expertise and clear leadership. Such governance would also include the monitoring of networks, and facilitating international cooperation. Importantly, initiatives should aim to establish a network of crisis management to exchange practices and encourage conversation (Baubion, 2013).

Efforts to mitigate the harmful effects associated with emergencies will benefit from a proactive approach that encompasses health promotion, health protection, and personal health services,

increases community and country capacities, and supports resiliency in health systems ("Emergency Risk", 2013). Strategic planning should involve innovative development through comprehensive emergency response plans, prevention measures, incident management systems, and education and training initiatives (Siebold, 2006).

The Role of Evidence

Health emergency management as an emerging field means that effective strategies are not yet standardized and that evidence is somewhat limited (Siebold, 2006). The field itself is evolving to meet the new demands of emergency management, but the inconsistencies in terminology and concepts hinder comprehensive research and evaluation methods (Siebold, 2006). Other barriers to evidence include difficulties quantifying issues and breaking down concepts into workable scientific questions and solutions (Siebold, 2006).

As public health defines its role in health emergency management, identifying best practices is crucial, as is defining the relationships between health care actors and non-health care actors (Lynch & Cox, 2006). By moving away from anecdotal evidence, performance indicators can be identified to compare with benchmarks to develop quality management. With evidence, governance and accountability mechanisms can be developed to ensure the environment is professionally managed (Lynch & Cox, 2006).

A variety of models of emergency management exist internationally, but there is no one system identified as optimal (Lee, Phillips, Challen & Goodacre, 2012). While evidence helps remove uncertainty, ideology, values, and principles affect what is accepted as valid information. Facts and values, personal experiences, and anecdotal evidence interact with information in such a way that affects what is considered credible, and what is implemented in practice. Therefore, the precautionary principle as an overarching concept should be practiced in the meantime - not only for prevention, but to manage and mitigate risk (Martuzzi, 2007).

Key Issues and Challenges

The 21st century has already observed an increasing frequency of damaging and costly shocks, and forecasts continue to show increased risks (Baubion, 2013). Societies are becoming increasingly vulnerable as unprecedented threats have potential to cause amplifier effects. The key macro drivers that reinforce vulnerability extend beyond the obvious risk factors: the infrastructure of globalization is founded on an interdependence of production and delivery systems, with supply chains and vital services networks more exposed to disruption. If one facet of the system is disrupted, it can cause system-wide collapse and subsequent cascading and trans-boundary effects, where an inevitable and sometimes unforeseen chain of events occur due to an act affecting a system (Baubion, 2013).

Rapid urbanization has resulted in a large portion of the world living in a built environment. The most rapid growth of urban areas is in the less wealthy regions of the world (namely, Africa and Asia),

and is projected to increase. A large portion of this is expected to be slums, which lack in essential services such as water, housing, security, and safety (Baubion, 2013). The global marketplace has contributed to this rapid expansion, creating urban dwellings that leave the government scrambling to provide essential infrastructures and services. This results in poorly planned built environments and leaves populations vulnerable to the effects of extreme weather events related to climate change. Subsequently, urbanization and concentration of populations and assets has resulted in vulnerable – and targeted – zones with potential for sizable losses (Baubion, 2013). If these current global patterns of increasing exposure through rapid urban development and environment degradation grow, then "disaster risk may increase to dangerous levels" (PreventionWeb, 2015).

Ethics

The negative health impacts of climate change can largely be associated with globalization, and more increasingly, trade and investment liberalization. Both processes disproportionately benefit larger and wealthier nations, increasing inequities and income gaps between HICs and LMICs (Labonte, 2015, p. 199).

Regions experiencing the greatest increase in climate-related diseases and events are the communities that are the least responsible for the increase in greenhouse gas emissions (GGE). Worst, those most affected (88% of the disease burden) are children under five, outlining an obvious ethical concern. Ultimately, developed countries are disproportionately responsible for GGE, yet the regions receiving the brunt of industrialized nations' actions, namely developing nations, do not have adequate means for mitigation (Patz et al., 2007).

Patz et al. (2007) argue the ethical considerations of these existing climate change health inequities, highlighting the unequal global distribution of responsibility and health impacts. The authors call for equitable health impact assessments of risks and solutions to effectively quantify the emerging crisis, as well as to ensure future initiatives are ethical and prevent further health inequities. Within this framework, it is argued that GGE should be "based on every person's equal right the 'atmospheric commons'" (i.e. common ownership of the deep sea) to protect the well-being of the global population, and draw upon robust quantitative evidence to suggest developed nations are disproportionately responsible for climate related health risks, while the poorest nations who have the least capacity to adapt are the most affected (Patz et al., 2007).

Despite current emissions, developing countries simply have not emitted GGE at a significant rate long enough to attribute responsibility to the natural assimilative capacity of the atmosphere. Currently, developed nations support fossil fuels through $450 billion on tax breaks, subsidies, and policy – but provide only $5 billion of the estimated $150 billion required to help developing nations adapt to climate change, directly caused by this industry (Oxfam, 2015). The WHO attributes 2.4 million premature deaths per annum to air pollution, primarily from combustion sources, demonstrating an unprecedented risk and one of the largest health inequities of this century (2007, p. 402).

While the principal argument is ethical in nature, there are several other compelling facets of

this approach. First, environmental changes have already challenged the health and economy of many nations, and are part of an increasing global trend; second, rural and underserved communities are the most vulnerable to these risks, exacerbating present non- climatic inequities; and third, current regional differences will become less distinct because of globalization (Patz et al., 2007). Efforts to protect vulnerable population groups not only serve ethical purposes, but also facilitate economic growth and development, thereby decreasing regional inequities and supporting the global market (Patz et al., 2007).

Economic effects

The emerging types of crises in the era of globalization are unique in that they extend beyond national borders, and cause significant economic effects. The interconnected nature of the global economy has created a new vulnerability to systemic shocks. Secondary, or cascading, effects of these shocks can create barriers to economic recovery, social cohesion, and political stability (Baubion, 2013). Various levels of the government are responsible to mitigate the damage from these cascading effects and prevent economic fall out, but the complex nature of cross-boundary crises often require many actors outside emergency services, requiring effective co-ordination between government bodies, NGOs, and non-profit organizations (Baubion, 2013).

With the increasing rate of climate-related disasters and extreme weather conditions, attention has been brought to the impending financial cost of climate change. Flood losses in the US from the year 2005 are estimated to be US$6 billion. By mid-century, it is estimated that this number will increase to US$52 billion (Hallegatte & Nicholls, 2013). Flooding estimates vary, but even conservative numbers pose many risks, especially to port cities. The startling news means millions more people are at risk of suffering unprecedented damages from flooding caused by future storms.

Of particular concern is the rising sea level. More than half of the US population, consisting of over 285 cities, live less than one meter above the high tide mark. Aside from disruptions to operations, damage to infrastructure can compound threats to the immediate environment (Hallegatte & Nicholls, 2013). Combined with poor public health standards and large at-risk populations, developing cities are at high risk for loss of life and widespread damage. Accordingly, the relationship between industrialization and climate change is risky and proper monitoring should be instated (Prüss-Üstün & Corvalán, 2006).

Health Emergency Management Infrastructure

Environment

The environment provides us with the ecological determinants of health that essentially determine whether we thrive or fail, making it our ultimate determinant of health. In the last two centuries, public health was born and defined by the myriad of threats to humans from the environment

(Baubion, 2013). With the transformation from agrarian to urban and industrial, through driving forces such as globalization and urbanization, there are increasing threats to the environment – and thereby to us. In combination with climate change, these forces are contributing to an unprecedented frequency and scale of crises, with trans-boundary and cascading effects from natural, biological, technological and societal hazards (Baubion, 2013).

The social determinants of health are influenced at proximal (immediate environmental risk), intermediate (occupational groups at increased risk) and distal (possible underlying environmental risks) levels (Prüss-Üstün & Corvalán, 2006). While urbanization poses many threats, the health of natural ecosystems is the prevailing natural determinant of health. Some populations are more vulnerable to specific determinants than others: the health disparities that are created through this interplay are not homogenous and interact in diverse contexts. What is apparent in the social determinants of health is the interplay on each other - no one determinant stands alone. Within this interaction, the environment plays a major role and stands to be the most influential determinant of health (Prüss-Üstün & Corvalán, 2006).

The environment encompasses the social, natural, cultural and physical surroundings that are external to the human host; the modifiable environment is more acutely the physical, chemical, and biological factors, as well as behaviours related to the environment (Prüss-Üstün & Corvalán, 2006). For the purposes of public health interventions, the WHO has reduced this definition to "those parts of the environment that can be modified by short-term or longer-term interventions, to reduce the health impact of the environment" (Prüss-Üstün & Corvalán, 2006, p.22).

Approximately one quarter of the global disease burden is attributed to modifiable environmental factors. This portion increases to one-third of the disease burden among children. Annually, this accounts for four million environment-caused child deaths per year. This 'environmentally-mediated' disease burden is much larger in the developing world, but high rates of non-communicable diseases are observed in developed countries as well (Prüss-Üstün & Corvalán, 2006). Expanding knowledge and awareness of environment-health interactions can support effective preventive and public health strategies to diminish the corresponding risks to health (Prüss-Üstün & Corvalán, 2006). As our knowledge of ecosystem functioning changes, we must augment the global health lens to the health of the environment, especially as these issues becoming increasingly transnational.

The attributable fraction is the "proportion of all health problems or deaths in the community that can be attributed to the risk factor" (Prüss-Üstün & Corvalán, 2006). Disease burden is often the result of environmental, social and behavioural risk factors that can be alleviated or eliminated through different forms of interventions. While people in the affected regions can suffer from short-term and long-term health problems, these problems disproportionately affect lower income and marginalized demographics (Bosher, 2006).

Factors such as the cost- effectiveness of alternative interventions are considered when deciding upon the best approach. Preventing disease before it happens eliminates acute care treatment costs; long-term interventions are more sustainable than immediate medical treatment; and environmental modification is the most equitable option, producing benefits across diverse populations (Prüss-Üstün &

Corvalán, 2006). Transportation networks and health care infrastructure are key elements of a community's recovery. Consequently, health care professionals should be involved with urban design, planning, construction, operation, and maintenance of critical infrastructure to increase the resiliency of essential lifelines (Bosher, 2006).

Environmental health interventions are cost-effective and produce benefits that extend beyond the health care sector, contributing to an increase in overall well-being of communities. These initiatives support environmental health components of international agencies, including land use patterns, energy use patterns, urban design, action to limit climate change, use of adequate building materials, building codes, and air and water quality (Prüss-Üstün & Corvalán, 2006).

Roles of the government and emergency management

The changing landscape of crises and their associated cascading effects has challenged risk management and political leadership globally (Baubion, 2013). Unexpected circumstances such as an unpredictably large scale; new or unprecedented or unusual combination; and a trans- boundary nature that does not observe geographic or policy boundaries often lead to gaps in information sharing (Baubion, 2013). The cascading risks become active threats themselves as they spread across health, climate, social and financial global systems. This non-linear nature has rendered traditional crises management a new risk, as it fails to mitigate further health burdens (Baubion, 2013). Furthermore, substantial public governance issues arise, as crisis management is often coordinated at the centralized government level but exercised at local or municipal levels. These disconnects create various barriers to effective crisis management, and are susceptible to a myriad of strategies that work at cross-purposes with different sets of goals (Baubion, 2013).

Similarly, the wave of privatization and decentralization has reduced overall capacities in governments to take direct action, while citizens' expectations of government transparency, responsibility and ethics are increasing in the face of new challenges (Bennett, Carney & Bailey, 2012). The role of the federal government is unique to public health emergencies, which require a flexible multi-level framework that allows for the appropriate response arrangement necessary, as well as serving many legal and social purposes (Bennett, Carney & Bailey, 2012).

Local NGOs and civil society organizations are key players in maintaining a culture of preparedness, yet the increasing number of players involved in crisis management requires greater coordination of a variety of stakeholders (Baubion, 2013). Furthermore, the mix of organizations involved in a crisis management may produce contrasting interests, priorities, logistics and values (Baubion, 2013). This global complexity has contributed to the changing landscape for risk management and calls for innovative features of crisis management (Baubion, 2013).

Policy Development Considerations

Human resources

Crises can occur at any time, requiring quick decision making that has substantial health impacts. The 2009 SARS outbreak highlighted many issues for public health responses to infectious diseases. However, five years later, surge capacities were still not where they should be. As the first few cases of Ebola reached North America, Ebola highlighted the gaps in hospitals' preparedness and response (Burgess, 2007). Hospitals rerouted human resources from other infectious diseases to Ebola awareness, training, and planning; this preparation meant health professionals were overworked and fewer resources were available for infection preventionists, yet Ebola was far less dangerous to the North American population than the Enterovirus D-68 outbreak and flu season (Burgess, 2007). Increasing surge capacities in hospitals for infectious diseases prevention and outbreaks would increase resources and prevent a burnt-out workforce that is more prone to make costly decisions (Burgess, 2007).

Another challenge within the health care system is shift work. Factors that affect a worker's performance during shift work include age, individual physiology, personal lifestyle, social support, and family responsibilities. A well-rested workforce is optimal for public safety, and as such, an evidence-based approach to scheduling is a major component of a preventive framework (Burgess, 2007). When shift work is not an option, supporting sleep coping mechanisms and creating separate rosters for executive decision makers and supervisors will heighten the ability of public health workers and emergency management officials to positively impact the health and safety of the public (Burgess, 2007). These human resource factors underline the need for a strong health emergency management framework of action that will not be affected by the negative physiological effects of shift work or employee burnout (Burgess, 2007).

Urban planning

The limited interaction between urban and emergency planners leads to vulnerable community development. Global climate change projections and potential extreme weather patterns demand critical infrastructure be brought to the forefront of global public health agendas (Bosher, 2006). Climate change mitigation and adaptation need to work in tandem with efforts to improve urban health equity. Coordinated efforts to support health, environment, and development policies can promote cost-effective development strategies that not only provide global health gains but support social and economic benefits. Addressing the modifiable environmental factors such as physical, chemical, and biological can reduce risk and exposure, generating other co-benefits such as overall well-being. The reaction to climate change has created a paradigm shift towards conserving energy, observed in building code shifts, but there is a need to find a balance of energy conservancy at the same time as promoting health (Bosher, 2006). Community planning and architecture organizes our environments and has the means to create healthy infrastructure (Bosher, 2006).

Legal Ramifications

Emergency powers serve legal and social purposes related to health emergency management, including the non-health care sector. The balance between decentralized and centralized powers is crucial to the coordination and effectiveness of the framework (Bennett et al., 2012). The United States Department of Health and Human Services' declaration of a public health emergency to the H1N1 pandemic changed the legal landscape of the federal response to an emergency. Global reactions to the Ebola outbreak struck many chords with human rights organizations and public health officials (Bennett et al., 2012).

Legislative arrangements for declaring a public health emergency are essential to respond to public health emergencies that meet both national obligations and public health goals. Furthermore, this framework must fall within constitutional human rights. Also, to be taken into consideration is how the emergency laws will interact with the routine non- emergency laws. Flexibility is required for timely revisions of new diseases and unprecedented cascading effects, as well as to avoid unnecessary restrictions on international traffic and trade (Bennett et al., 2012).

Health Promotion Initiatives

The UN recognizes that the highest attainable standard of health is a fundamental right. This is an inclusive concept and extends beyond disease, encompassing quality of life and overall well-being. The changing landscape of health concepts and the environments in which they are affected by means that there are lots of new opportunities to promote health, but this requires substantial support from governmental bodies, international coalitions, and voluntary and private sectors, to create policy coherence and measurable progress (WHO, 2005).

Health promotion initiatives stand to not only mitigate direct harmful effects of crises, but prevent the range of harmful behaviours that are common during a public health crisis. These behaviours are exhibited on many levels from individuals to global organizations, including organizational disruption, disorganized and disruptive group behaviour, increased drug, alcohol and tobacco use, decreased reporting's of wellness, unwarranted trade and travel restrictions, decreased levels of organizational trust and agency credibility, increased nepotism, bribery, and fraud, and unnecessary requests for services (CDC, 2014).

Empowering communities

The WHO Ottawa Charter for Health Promotion aims to enable the population to increase control over, and improve their health via the necessary social and personal resources (WHO, 1986). The two main concepts involved with this process are enabling and advocacy. Both concepts need to be equally incorporated into this health promotion approach: to enable those to take control of those things that determine their health; and to advocate for those factors that are beyond the control of the

individual. To help reduce the divide between what we know and what we do, we should invest in networks that encourage dialogue. These networks in turn help transfer knowledge from the institutes and organizations to ground level community partners; commit to partnering between practitioners, policy makers, and diverse community stakeholders; and adopt planning and implementation methods that are used consistently (Best, 2003).

While many actors are involved in emergencies, disasters, and crises, it is important to remember the community who is most directly impacted. The risk of a negative public response is increased when there are poor communication practices. Planning, coordination, research, and training are required to advance communication practices. The public should feel empowered to make informed decisions that will reduce their risk of harm.

Community empowerment has many different influences, encompassing a very broad approach not without its own challenges, including overcoming unequal power relations, fostering individual contributions whilst promoting community health, promoting sustainability, and preventing further divides of these power relations (Wallerstein & Bernstein, 1994). Social media is one method to bridge this gap of power relations, empower individuals and communities, and advance the awareness and action on the determinants of health.

To help prevent harmful emergency behaviours, health promotion initiatives can foster resiliency through health emergency management awareness and literacy, preparedness, and capacity building (CDC, 2014). Health literacy stands to create independence and empowerment in individuals and communities. Through community-based educational outreach programs, health literacy rates can increase in tandem with health education (CDC, 2014). Community development is another way of working to build resiliency in communities. It involves a transfer of power and control from the government to communities and organizations, thereby strengthening social capital and fostering social cohesion and participation (CDC, 2014). This practice builds individual skills, strengthens community action, and empowers organizations to promote sustainable health behaviour and support healthy environments through intersectoral collaboration (CDC, 2014).

Cultural safety

Culture is a very complex facet of health emergency management. Promoting cultural safety and cultural education can foster effective communication before, during, and after a crisis. Cultural diversity affects communication through language, perception of risk, beliefs about institutions, credibility of information, coping mechanisms, and group versus individual mentalities (CDC, 2014). These factors highlight the importance of understanding the needs, cultural background, community history, location, and values of a community in effective communication. Cultural education allows organizations to communicate messages in a language and on a platform, that will be understood by the population (CDC, 2014).

A crisis has the potential to deteriorate population health purely based on cultural categorizations, without any change in the individuals' identity. The shift in attitude towards cultural

categorization is often unfounded, and can result in changes to social and economic integration, discrimination based on stigma, and overall lower reporting of well-being. Fortunately, cultural education has proven to be an effective tool in changing practice. This training requires a process of consultation, developing partnerships, and encouraging engagement from all levels of stakeholders (Durey, 2010). Education also brings about a conscious awareness of personal bias that may have otherwise affected services provided (Durey, 2010).

Technology and communication

The American Centres for Disease Control and Prevention (CDC) acknowledges the public's need for instant and credible communication during the time of a crisis. The crisis and emergency risk communication (CERC) approach allows public health officials to provide credible and pertinent information, preventing further damage and harm to the population. The approach opens lines of communication with stakeholders and the public, embracing principles of time-sensitivity, accuracy, honesty and truthfulness, empathy, action, and respect (CDC, 2014).

On the other hand, barriers to technology and communication can hinder public health efforts. Further investments to improve low-tech information delivery and develop systems for faster adaptation are required to build capacity of the emergency management system. This encompasses E-health, including its ability to increase literacy, as well as help remove barriers, transferring knowledge at a much quicker rate (CDC, 2014). It allows individuals to access information that was once only available through a physical visit, removing barriers to knowledge (CDC, 2014). At the same time, there are possibilities it will increase inequities as those who require the most help cannot always afford technology. Initiatives to create wider accessibility to technology can reduce this gap.

Conclusion

Considering this changing landscape of crises, international agencies are taking on the necessary tasks of discussing and assessing current practices and approaches, and most importantly, identifying good practices. Health promotion initiatives for resilient communities are aided by legislation, as the role of the government becomes the critical factor when capacities are disrupted. Mitigation and adaptation techniques need to work in tandem with efforts to improve urban health equity. Without targeted interventions, health inequities are likely to continue to grow both globally and within Canada. Most OECD governments have accounted for the changing nature of risks and crises, but as crisis continue to evolve, even the most resilient systems will face challenges.

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The Broader Benefits: Telehealth as an Instrument to Improve Human Security in Remote and Northern Canada

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ABSTRACT

As of 2016, Canada ranks 9th in the world on the Human Development Index. This relatively good standing, however, is not consistent throughout the country. The provision of 'human security', as outlined in the United Nation Development Program's (UNDP) 1994 human development report, is arguably much stronger in urban centres than in Canada's remote and rural north. Looking beyond the health benefits, this paper assesses how the implementation of telehealth in Canada's northern and remote communities led to an increase in other areas of human security. Specifically, this paper argues that the presence of telehealth services in remote communities indirectly impacts an individual's economic, environmental and cultural security. From an economic perspective, telehealth reduces opportunity cost for the individual and stimulates economic growth in the local community. Environmental security stems from a reduction in emissions associated with healthcare in addition to the use of telehealth information and communication technologies (ICTs) to educate and assist in emergency environmental situations. Cultural security is a resulting feature of telehealth's flexibility to accommodate particular cultural needs. Largely, this paper highlights the direct proportionality between telehealth and human security. It is hoped that, in recognizing this relationship, federal, provincial, territorial and local governments will work together to fund, support and strengthen telehealth practices. Further, Canada cannot claim to be a champion of human security abroad if there are holes within its domestic practice. It is telehealth's broader benefits that make it a clear policy choice to improve welfare and contribute wholly to the often forgotten underdeveloped regions within developed countries.

I. INTRODUCTION

The use of nation states as units of analysis when assessing social policy neglects internal inequalities and regional variations within a state. Canada, for example, currently ranks 9th on the Human Development Index.[1] This relatively good standing, however, is not consistent throughout the country. The remoteness of Canada's North and the related consequences of inaccessibility – lack of infrastructure, health services and affordable food - challenge the notion that Canadians enjoy a high development standard and basic human security.

Human security is frequently understood in accordance with the United Nations Development Program's (UNDP) 1994 human development report. It outlines human security as "safety from such chronic threats as hunger, disease and repression. And second, it means protection from sudden and hurtful disruptions in the patterns of daily life – whether in homes, in jobs or in communities."[2] In a Canadian context, Lloyd Axworthy elaborated on this theory by outlining that human security could be equated to "security against economic privation, an acceptable quality of life, and a guarantee of fundamental human rights."[3] The broad definition has sparked criticism over the validity and usefulness

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[1] "Human Development Index (HDI)," United Nations Development Program: Human Development Reports, last modified 2015, accessed October 5, 2016, http://hdr.undp.org/en/content/human-development-index-hdi.
[2] "Human Development Report 1994," United Nations Development Program, 23. Accessed September 21, 2016, http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf.
[3] Axworthy, Lloyd, "Canada and human security: The need for leadership," *International Journal* 52, no. 2 (1997):

of the concept of human security. By encompassing any sort of disruption, the term becomes an obsolete measure in attempting to categorize or describe a given situation. Debate remains about whether it is more beneficial to narrow or broaden the definition. For the purposes of this study, however, human security will be understood in, possibly, its most ambitious form as originally outlined by the UNDP.

Resource scarcity in Canada's north and within the Canadian federal government induces the difficult challenge of prioritizing the country's security needs when prescribing policy in isolated regions. Thankfully, technological progress, particularly in the field of communications has increased the speed and delivery of information and services in Canada's north. Such progress has helped induce certain policy choices. Telehealth, for example, has proven to be a beneficial alternative for delivering health care services to remote areas. The World Health Organization describes telehealth as follows:

> The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.[4]

Specifically, within the literature, telehealth has been cited as a practice that has a significant impact on removing access barriers to health.[5] Further, it is able to do so while reducing the financial burden on the healthcare system. Its practicality and ease of implementation in a, arguably, technology-obsessed global society has resulted in "…all but 31 (13 per cent) of the world's 238 United Nations recognized countries" engaging in e-health related activities.[6] To be explicit, this includes developed and developing countries alike.

Telehealth became a popular policy in Canada at the end of the 20th century and continues in its use and evolution in both urban and rural contexts. It was estimated that in 2010, rural Canadians had 94,000 telehealth consults thus dramatically reducing both the relative emotional and financial costs of travelling great distances for health care.[7] The same empirical study on the cost-benefit of telehealth revealed that the existence of telehealth networks "ha[d] resulted in annual [Canadian] health system cost avoidance of approximately $55 million and personal travel cost savings of $70 million."[8]

Studies related to telehealth and its delivery to remote areas, frequently highlight persisting barriers: lack of infrastructure, privacy concerns, high employee turnover, funding, time, coordination

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[4] World Health Organization, "Telemedicine: Opportunities and developments in Member States," 2 (2010): 9, accessed October 2, 2016, http://www.who.int/goe/publications/goe_telemedicine_2010.pdf.

[5] Ibid.

[6] Richard E. Scott and Maurice Mars, "Telehealth in the developing world: current status and future prospects," *Smart Homecare Technology and TeleHealth* 3, (2015): 28.

[7] Canada Health Infoway, "Telehealth Benefits and Adoption: Connecting People and Providers," (May 2011): 8, accessed October 3, 2016. https://www.infoway-inforoute.ca/en/component/edocman/333-telehealth-benefits-and-adoption-connecting-people-and-providers-full/view-document.

[8] Ibid., 9.

amongst various levels of government and resistance to change.[9] These difficulties are manifested in numerous developed nations that, like Canada, have large geographical areas. While much of the existing literature on telehealth centers on case studies in Australia and the United States; however, in recent years, a greater focus has been given to telehealth practices in the developing world.

Regardless of the regional focus, the studies consistently highlight the health benefits provided by telehealth. These include, but are not limited to, access to specialists, education on a variety of health topics and empowerment. The latter concept is a result of telehealth's ability to educate and advise individuals, yet ultimately allow those using the service to make health related decisions on their own accord. More specifically, telehealth can help eliminate three basic threats to security: susceptibility to epidemics, lack of access to healthcare services, and insufficient access to healthcare personnel.[10] What fails to be addressed, however, are the greater ripple effects that telehealth has on a remote community. Besides the well documented health benefits of telemedicine, this paper explores how the implementation of telehealth in Canada's northern and remote communities may result in an increase in other areas of human security.

The simple classification of telehealth exclusively as a health policy neglects its broader societal impacts. Specifically, this paper argues that the existence of telehealth services in remote communities indirectly impacts an individual's economic, environmental and cultural security. As aforementioned, these elements of security are all components of the UNDP's definition of human security. From an economic perspective, telehealth reduces the opportunity cost for the individuals and stimulates economic growth in the local community. Telehealth encourages job creation at the local level with respect to physician recruitment and retention, initial set up, lab work, and local pharmacy revenues.[11] Environmental security stems from a reduction in greenhouse gas emissions associated with healthcare by using telehealth information and communication technologies (ICTs) to provide healthcare advice, diagnose, and educate populations without having healthcare providers, or patients, travel great distances. Travel reduction helps to deter the degradation of the natural environment. Beyond healthcare, ICTs serve a secondary purpose of monitoring environmental change, educating populations on best environmental practices, and assisting in emergency situations following environmental disasters.[12] These concepts, however, are not pointedly explored in existing literature and, thus, an exploration on how they promote environmental security is merited. Lastly, cultural security is a

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[9] Line Linstad, "Telemedicine as a tool for improving human security," In *Environmental and Human Security in the Arctic*, ed. Gjorv, Gunhild Hoogensen Gjorv, et al.,, New York: Routledge, 2014; Jennifer Moffatt & Diann Eley, "Barriers to the up-take of telemedicine in Australia: a view from providers," *Rural and remote health* 11, no. 1 (February 2011): 153-160.

[10] Ibid.

[11] Nicole Lewis, "Telehealth Can Aid Population Health Growth In Rural Areas," Medical Economics, last modified April 17, 2017, accessed August 24, 2017, http://medicaleconomics.modernmedicine.com/medical-economics/news/telehealth-can-aid-population-health-growth-rural-areas; John White and Leila Samy, "Health IT is an Opportunity for Job Creation in Rurual Communities," *Home Room*, last modified 2013, accessed August 24, 2017, https://blog.ed.gov/2013/08/healthit-is-an-opportunity-for-job-creation-in-rural-communities/.

[12] Cristina Bueti and David Faulkner, "ICTs as a Key Technology to Help Countries Adapt to the Effects of Climate Change,"World Resources Report, accessed August 24, 2017, http://www.wri.org/our-work/project/world-resources-report/icts-key-technology-help-countries-adapt-effects-climate.

resulting feature of telehealth's flexibility to accommodate particular cultural needs. By expanding the area of influence and highlighting these greater consequences, it is hoped that this paper will better showcase how telehealth and human security are directly proportional. Relying on data collected from studies on telemedicine in northern and remote communities in various countries, this study will look at the link between health, the economy, the environment and local culture. Through the three lenses, it is hoped that the notion of telehealth as an instrument to increase human security will become more easily perceived.

II. THE ECONOMIC BENEFITS OF TELEHEALTH

An increase in telehealth access is a contributing factor to an increase in economic status inasmuch as a healthy workforce is perceived as being more productive. In fact, from a global lens, the relationship between population wellbeing and economic performance is perceived as directly proportional.[13] As Richard E. Scott and Maurice Mars observe, "[c]ountries differ substantially in their levels of health and well-being, but in general terms those countries with higher well-being are those that are more economically developed with higher personal income leading to better health."[14] This statement, however, neglects the fact that, despite a country's ability to boast a high average income, the cost of accessing healthcare varies with the region. Additionally, this measure is not reflective of the income earned by remote populations. Both income and the cost of accessing healthcare affect health outcomes regionally. Studies on telehealth in remote areas tend to fixate on the specific cost-benefits that result. In his remote community centric study looking at rural hospitals in the United States, Brian A. Whitacre develops a framework that splits the economic benefits in a local community into four categories: "1) hospital cost savings from outsourcing telemedicine procedures; 2) transportation savings to center patients; 3) missed work income savings to center patients; 4) lab/pharmacy work performed locally."[15]

The opportunity costs that telemedicine presents for healthcare systems are very visible throughout the literature. For example, by establishing a paediatric burn telehealth service in 2005, the state of Western Australia saved an annual average of $1.89 million AUD.[16] Similarly, the Brazilian state of Minas Gerais in 2005 invested $9 million USD in a telehealth system for its 19 million residents. This initiative yielded a cost savings of $20.08 million USD within a period of 5 years.[17] In the Canadian province of Ontario, a six month study between October 2008 and March 2009 on healthcare related travel found that the introduction of a telehealth system lead to a decrease of $192,665.88 CAD in

[13] A. S. Bakare and Olubokun Sanmi, "Health Care Expenditure and Economic Growth in Nigeria: An empirical Study," *Journals of Emerging Trends in Economics and Management Sciences* 2, no.2, (2011): 83-87.

[14] Scott and Mars, 25.

[15] Brian E. Whitacre, "Estimating the Economic Impact of Telemedicine in a Rural Community," *Agricultural and Resource Economic Review* 40, no. 2 (August 2011): 175.

[16] Tania McWilliams et al., "Telehealth for paediatric burn patients in rural areas: a retrospective audit of activity and cost savings," *Burns* 42, no 7 (2016): 1488.

[17] Scott and Mars, 29.

claims submitted to the Northern Health Travel Grant.[18] The Northern Health Travel Grant provides monetary compensation from the government of Ontario, for long-distance travel to access medical services that are not available locally. The grant is restricted to those who travel over 100 kilometers, access only the nearest health care facility, and accommodation allowances are only provided for one evening.[19] The grant does not cover trips in ambulances.[20] The study in Ontario sampled 282 residents who had received teleconsultations in lieu of traveling to receive their healthcare. Given the restrictions on the Northern Health Travel Grant, the total money saved from reduced patient travel is likely larger than the figure presented. Further, from a remote hospital perspective, telehealth simply makes economic sense. As Robert J, Bulik indicates, productivity increases when a physician is able to remain and work in one location rather than spend a large portion of time travelling between sites.[21]

While the evidence of savings is plentiful, there is an absence of research indicating where such funds are being redirected. There is also a lack of literature on the costs associated with the initial infrastructure, including access to equipment as well as the set-up costs associated with implementing a telehealth system. Such expenses, while context specific, can be presumed to be quite sizeable for northern, fly-in communities.[22] This is particularly true in terms of introducing video-conferencing or local scanning equipment as opposed to mobile telehealth initiatives that work primarily through cellphones that residents may already own. The set-up cost is additionally compounded by the lack of good quality telecommunications infrastructure in the North.[23] The need for preliminary cost assessment is important and consistent with findings, albeit limited, that depending on the specific nature of the healthcare (primary, emergent, surgical), telehealth is not always the most cost-effective nor the best manner to improve effectiveness of health care delivery.[24] It is for this reason that it is important to give due consideration to the context within which telehealth was studies, when interpreting data.

When assessing telehealth's contribution to human security, the focus must be redirected at the individual level. Building off Whitacre's framework, the argument stands that telehealth contributes to human security by increasing individual economic prosperity. Various studies reveal that the correlation is best demonstrated by providing individuals with greater profits by reducing their travel costs and

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[18] Caterina Masino et al., "The Impact of Telemedicine on Greenhouse Gas Emissions at an Academic Health Science Center in Canada," *Telemedicine and e-Health* 16, no. 9 (November 2010): 4.

[19] Government of Ontario: Ministry of Health and Long term Care, "Northern Health Travel Grants," last modified May 1, 2015, accessed August 24, 2017, http://www.health.gov.on.ca/en/public/publications/ohip/northern.aspx.

[20] Ibid.

[21] Robert J. Bulik, "Perspectives on the Patient-Provider Relationship in Primary-Care Telemedicine," *Telemedicine Journal and e-Health* 10, no. 4 (February 2005): 466-468.

[22] This presumption is based on domestic cargo shipping rates as listed by Air Canada to cities in Canada located South of the 60th parallel and First Air which ships to northern fly-in communities.

[23] Christine Dobby, "Nunavut plagued by high-cost, low-internet speed, CRTC hears," *The Globe and Mail* (April 12, 2016)*,* accessed August 24, 2017, https://www.theglobeandmail.com/report-on-business/crtc-hears-investment-needed-to-connect-nunavut-with-high-speed-internet/article29613527/.

[24] Victoria A. Wade et al., "A systematic review of economic analyses of telehealth services using real time video communication," *BMC Health Services Research* 10, no. 233 (2010): 1-13.

through job creation and retention in the local community.[25] They are examined in detail below.

      If one of the facets of human security is understood as economic security, then the reduction of out-of-pocket travel expenses can be a positive factor in bolstering human security. A qualitative study of patient and family experience with video telehealth in rural northwestern Ontario found three key categories of benefits to the patients: 1) lessening the burden; 2) maximizing supports; and 3) tailoring specific e-health systems to enhance patient and family needs.[26] An empirical study from the United States found that the cost associated with travel for 24 rural communities ranged from $5,987 to $95,388 annually per community.[27] Further, missed work income savings were calculated at ranging from $3,032 to $68,269.[28] These costs reflect the opportunity cost of implementing a telehealth system. Additionally, this study mirrors the findings in an Australian study on a rural telehealth system focused on mental health emergencies. As a result of the mental health video assessments provided, there was a significant decrease in the number of rural patients experiencing a mental health emergency that were automatically admitted to an isolated institution. This had traditionally been the practice. From an economic perspective, the result was a drastic reduction in travel costs and time spent away from work for the individual in question.[29] The impact of lessening the economic burden on those living in northern Canada can clearly be understood when one appreciates that the Qikiqtani General Hospital in Nunavut services those living within a range of one million square kilometers.[30] Though travel grants do exist, they are time intensive to complete and do not necessarily cover the trip's expenditures in its entirety. As noted by Sevean et. al., telehealth is thus a favourable savings-inducing instrument for rural Canadians.[31]

      A second component of telehealth's relationship to human security - reflected as improvement in economic status - is its ability to create jobs and keep money in the local economy. The global telemedicine market is expected to reach $13.8 billion by 2018.[32] In a study of 24 remote regions in the Midwest United States, Whitacre found that the most direct way to see economic investment in the local economy is through an increase in lab or pharmacy work that is performed locally.[33] His argument, however, is not particularly convincing given that it is heavily influenced by the number of visits per year. Canada is a sparsely populated country, particularly in the North, and thus the amount of resulting

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[25] Chris J. Rhoads, *Telehealth in Rural Hospitals: Lessons Learned from Pennsylvania*, 1st ed., (Boca Raton: Productivity Press, 2016): 108.

[26] Lessening the burden includes the costs of travel, accommodations, lost wages, lost time and physical limitations whereas maximizing supports includes access to family, friends, local care providers and familiar home environments. Pat Sevean et al., "Patients and families experiences with video telehealth in rural/remote communities in Northern Canada," *Journal of Clinical Nursing* 18, (2008): 2573.

[27] Whitacre, 177.

[28] Ibid., 178.

[29] Emily Saurman, David Perkins, Russell Roberts, Andrew Roberts, Martyn Patfield, and David Lyle, "Responding to mental health emergencies: Implementation of an innovative telehealth service in rural and remote New South Wales, Australia," *Journal of Emergency Nursing* 37, no. 5 (2011): 453-459.

[30] "Qikiqtani General Hospital," Nunavut Department of Health, last modified December 9, 2016, accessed December 9, 2016, http://www.gov.nu.ca/health/information/qikiqtani-general-hospital.

[31] Sevean et al., 2578.

[32] Scott and Mars, 28.

[33] Whitacre, 179.

lab work required per community is quite low. For example, of the Northwest Territories' 33 established communities, for example, all are comprised of less than 4,000 people except Yellowknife, which has a population of a little over 20,000.[34] Moreover, it is easier to understand the correlation between travel and the local economy, when one considers that a reduction of travel can results in less local business being lost to alternate communities.[35]

Much debate remains about the ability of telehealth to entice physicians and healthcare workers to live in remote communities. A study conducted in remote Quebec yielded some interesting results that better captures the Canadian context. In assessing the retention and recruitment of physicians, Gagnon, et. al. observed that seven influential factors contribute to decisions to pursue careers in smaller remote regions.[36] These factors include: individual, family, community lifestyle, professional, organizational, educational and economic.[37] They assert that "…telehealth is likely to have an impact on a set of individual, professional, organization and educational factors."[38] While they express that telehealth does not lead to a direct increase in medical human resources, it does have a positive impact on occupational well-being. Occupational well-being is defined the quality of life experienced at work and is influenced by a number of factors, including the ease and efficiency of the technology associated with the delivery of telehealth.[39] An increase in occupational well-being, in turn, translates to a higher recruitment and retention rate of physicians. These findings are consistent with the results of a study conducted in rural regions of Mali where it was found that use of technology alone did not strongly affect retention.[40] The study also reiterated the need for human resource training for technology because "…familiarity of health professionals with ICT tools and [telehealth] application is one of the factors that help to achieve development and sustainability of [telehealth] projects."[41]

Telehealth proves to be a promising factor for the occupational well-being and, ultimately, the recruitment and retention of physicians when combined with proper training. Telehealth, however, is not a substantial fix to remote workforce shortages.[42] These findings are consistent with Whitacre's observation that, specifically in hospital settings, the introduction of a telehealth system does not result

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[34] "Population Estimates by Community," Northwest Territories Bureau of Statistics, last modified July 1, 2015, accessed December 9, 2016, http://www.statsnwt.ca/population/population-estimates/bycommunity.php; City of Yellowknife, "Demographics and Statistics," last modified 2013, accessed August 24, 2017, https://www.yellowknife.ca/en/doing-business/demographics-and-statistics.asp.

[35] Thomas Nesbit et al., "Development of a telemedicine program: a review of 1,000 videoconferencing consultations," *Western Journal of Medicine* 173, no. 3 (September 2000): 169.

[36] Marie-Pierre Gagnon et al., "Exploring the effects of telehealth on medical human resources supply: a qualitative case study in remote regions," *BMC Health Services Research* 7, no. 6 (2007): 2.

[37] Ibid, 2.

[38] Individual factors include: native of the region and personality. Professional factors include: occupational well-being, multiskill practice, technical support center, team reputation, specialist availability and integration to the team. Organizational factors include: critical mass and image of the center. Educational factors include: training in the region, continuing medical education and effective education. Ibid., 4.

[39] Ibid., 8.

[40] Gisele Irene Claudine Mbemba et al., "The influence of a telehealth project on healthcare professional recruitment and retention in remote areas in Mali: A longitudinal study," *SAGE Open Medicine* 4, (2016): 7.

[41] Ibid., 6.

[42] Ibid., 8.

in "telemedicine only jobs."[43] That is, it is not typically observed that jobs are created specifically as a result of the implementation of telehealth services. The exception to this is outlined in Chris J. Rhoades' study of telehealth in the state of Pennsylvania where she argues that job creation and entrepreneurship is only encouraged if technological infrastructure is in place at the onset of the introduction of a new telehealth system.[44] Notwithstanding local contexts whereby a lab or pharmacy would see an increase in work, it can be concluded that on average, a general relationship between telehealth and job creation is negligible. The availability of telehealth is a contributing factor to retention and recruitment of physicians, but is not a direct one.

III. ENVIRONMENTAL BENEFITS AND TELEHEALTH

The benefits associated with reduced travel to access healthcare are not limited entirely to individuals. Indeed, it is implicit that there are environmental benefits when reducing the travel necessary to maintain a minimal level of health and wellbeing. For example, it is estimated that in the United States, 8 per cent of the country's total greenhouse gas emissions and 7 per cent of total carbon dioxide emissions come from the healthcare sector. It is estimated to comprise 3 per cent of the United Kingdom's carbon dioxide emissions.[45] In Canada, 2008 figures suggest that health care services, except hospitals, are responsible for 3.34 per cent of Canada's total greenhouse gas emissions.[46] This number is drastically lower than the aforementioned countries, as transport emissions associate with healthcare are not included in the calculation. While it is easy to see the environmental impact when reducing travel emissions for patients, Wootton, Tait and Croft state that there are in fact three sources of carbon emissions in the healthcare system. In addition to emissions resulting from patient travel, there are the emissions resulting from the goods and services consumed by the health system and the emissions associated with buildings to be accounted for.[47] Within a northern Canadian context, the building emissions would likely be higher than average, given the average annual temperature of the region in addition to the darkness experienced during the winter. While there is a lack of detailed information regarding the specific budgets of hospital operations in the north, one study did find "Nunavut's annual health care costs at $13,152 per person, more than double the Canadian average of $5,988 per person."[48] It is apt to perceive this increase as a consequence of the remoteness of Canada's north.

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[43] Whitacre, "Economic Impact of Telemedicine," 174.

[44] C.J. Rhoad, et al., "Telehealth in Rural Pennsylvania," last modified January, 2014, accessed August 24, 2017, http://www.rural.palegislature.us/documents/reports/Telehealth-2014.pdf, 45.

[45] Jeanette W. Chung and David O. Meltzer, "Estimate of the Carbon Footprint of the US Health Care Sector," *Journal of the American Medical Association* 302, no. 18 (2009): 1971.

[46] Statistics Canada, "Greenhouse gas emissions, by sector," last modified April 11, 2012, accessed August 24, 2017, http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/envi42a-eng.htm.

[47] Richard Wootton, Alex Tait and Amanda Croft, "Environmental aspects of health care in the Grampian NHS region and the place of telehealth," *Journal of Telemedicine and Telecare* 16, no. 4 (2010): 215.

[48] "Nunavut's per capita health costs double the Canadian average," Nunatsiaq Online, last modified November 5, 2013, accessed December 9, 2016,

Though studies have considered the calculation of carbon emissions due to health related travel, the results are extremely contextual given the geography and scope of the area studied. For example, in Australia, a study revealed that within a year, the 1553 residents of King Island traveled a total of 346,573 kilometers and generated an estimated total of 134.64 tonnes of carbon dioxide.[49] The generated emissions, however, are likely higher than other remote regions as the locale analyzed was an island; therefore all patients were required to fly to the mainland to seek medical treatment. Similar circumstances are witnessed in Canada's north, as many communities are not connected via highway or rail.[50] A Canadian study, conducted over 6 months between the 88 telemedicine sites across Ontario, Canada's most populous province, revealed that the total travel distance avoided was 757,234 kilometers which equated to 185,159 kg of greenhouse gas emissions being avoided.[51] In addition, the study also looked at the emissions associated with videoconferencing. The 840 teleconsultations, conducted in the same time period, resulted in the production of 42 kg of carbon emissions.[52] This study was limited, however since it was unable to calculate for rail or air travel. The impact of air travel is particularly important given that it was found that approximately 22 per cent of all air ambulance transportation was unnecessary or over triaged.[53] This number is derived from a study that looked at remote community transfers to the Port McNeil hospital in British Columbia but is, as the authors describe, relatively standard for remote regions. Emergency telehealth services can reduce the number of unnecessary and costly transfers by first assessing the severity of the circumstance.

Studies on climate change frequently use the Arctic as a reference point as it invokes imagery where the physical results of climate change are visible and compelling. Further, as resource extraction moves to higher latitudes, those in living in the north experience higher risks. As Wilfred Greaves summarizes:

> Environmental changes in the circumpolar Arctic – both anthropogenic climate change and other forms of ecological contamination, degradation, and exhaustion – are driving complex social and physical processes that place northern peoples and communities on the front line of global environmental insecurity.[54]

A primary way that telehealth can bring an increase in human security is through the very infrastructure that supports telehealth and the various information and communication technologies (ICTs). As the global environment shifts and changes, the north has become increasingly warmer and

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http://www.nunatsiaqonline.ca/stories/article/65674nunavuts_per_capita_health_costs_double_that_of_canadian_average/).

[49] I. Ellis et al., "Making a case for telehealth: measuring the carbon cost of health-related travel," *The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy* 13, no. 2723 (2013): 6.

[50] Nunavut Tourism, "How to Get Here," last accessed August 25, 2017 from http://nunavuttourism.com/planning-your-trip/how-to-get-here.

[51] Masino et al., 1.

[52] Ibid., 3.

[53] Stephanie Moffat, Robert A. Taylor and Harvey V. Thommasen, "Air Ambulance Transfers to Port McNeil, British Columbia," *Canadian Journal of Rurual Medicine* 4, no. 1 (1999): 25.

[54] Wilfrid Greaves, "For Whom, from What? Canada's Arctic Policy and the Narrowing of Human Security," *International Journal: Canada's Journal of Global Policy Analysis* 67, no. 1 (2012): 239-240.

plagued by higher sea levels.[55] ICTs prove an effective instrument for monitoring environmental change, detecting environmental emergencies and educating rural populations on more effective agricultural practices.[56] The use of telehealth technologies is equally adopted to help provide education to healthcare providers and patients. In a 2013 assessment of the Canadian telehealth system, it was found that the largest increases in total number of annual educational sessions fell within the jurisdictions of Quebec (2010:241, 2012:8660), Northwest Territories (2010: 715, 2012:1087) and Yukon (2010:419, 2012:611).[57] These numbers suggest that there is an increase in health education sessions being provided to the northern Canada with little to no increase in greenhouse gas emissions produced from travel. This concept, however, has yet to be studied specifically. The increase of educational sessions is indicative of rural Canada being receptive to the widening of services available. The response rate of these educational initiatives was positive with a satisfaction rate of 84.6 per cent calculated in an Ontario study on videoconferencing's effectiveness on educating and improving home parenteral nutrition care.[58] The increasing use of videoconferencing by universities and in the business world suggest that it is a sustainable method of inclusion for those inhabiting the remote regions of Canada.

The ability to have telehealth access administered though mobile phones is particularly important for emergency environmental situations in remote communities as it can provide a method to remain in contact with the affected population. Nonita Yap uses the example of a 2008 flood in Bihar, India and the ability for rescue teams to locate – through ICTs with tracking capability - those who were marooned.[59] In Canada the concept of home telehealth, whereby ICTs are distributed and implemented at the individual level rather than at a local clinic, is only available in the Yukon and was found to be "well below the overall growth of telehealth services" at the national level.[60] Further expenditures in sustainable and reliable telehealth infrastructure would therefore be an investment in a system that is instrumental in providing physical security and coordinating efficient relief efforts when major disasters strike. Telehealth infrastructural investments, as a means to decrease environmentally harmful

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[55] National Geographic, "Sea Level Rise:Reference," accessed August 26, 2017 from http://www.nationalgeographic.com/environment/global-warming/sea-level-rise/; Nicole Mortillaro, "As Arctic warms, Canada's glaciers playing major role in Sea Level Rise," *CBC News,* last modified February 20, 2017, accessed August 27, 2017 from http://www.cbc.ca/news/technology/canadian-glaciers-rising-sea-levels-climate-change-1.3985743.

[56] Stan Karanasios, "New and Emergent ICTs and Climate Change in Developing Countries," ed. Richard Heeks and Angelica Ospina, (paper published for the Centre for Development Informatics, Institute for Development Policy and Management), last updated 2011, accessed November 3, 2016, http://www.niccd.org/sites/default/files/KaranasiosClimateChangeEmergentICTs.pdf.

[57] "2013 Canadian Telehealth Report," COACH: Canada's Health Informatics Association, last updated June 2013, accessed December 2, 2016, https://www.coachorg.com/en/communities/resources/TeleHealth-Public-FINAL-web-062713-secured.pdf, 17.

[58] Olivia Saqui et al., "Telehealth videoconferencing: Improving home parenteral nutrition patient care to rural areas of Ontario, Canada," *JPEN: Journal of Parenteral and Enteral Nutrition* 31, no. 3 (2007): 234.

[59] Nonita T. Yap, "Disaster Management, Developing Country Communities & Climate Change,"ed. Richard Heeks and Angelica Ospina, (paper published for the Centre for Development Informatics, Institute for Development Policy and Management), last updated 2011, accessed November 3, 2016, http://www.niccd.org/sites/default/files/YapDisasterManagementDevelopmentICTs.pdf, 17.

[60] COACH: Canada's Health Informatics Association, "2013 Canadian telehealth report," 25.

greenhouse gas emissions from travel, can, by extension, contribute to an increase in environmental security.

IV. TELEHEALTH AND CULTURAL SECURITY

Arguably, one the best features of telehealth is its adaptability to different cultural contexts. Indeed, this was seen as one of the thematic benefits observed in the Sevean et. al. study of video conferencing use in northwestern Ontario.[61] The demographic composition of northern Canada is comprised of predominantly of Métis, First Nations and Inuit peoples. In advocating for the need to bring telehealth services to certain marginalized groups in the United States, Alverson, et al assert the need for adaptive healthcare practices, and lists areas in which telehealth can specialize to help target the specific health needs of women, African-American, Latino, and Native American populations.[62] This concept helps direct resources appropriately and, arguably, demonstrates that telehealth can also be an instrument to better ensure a sense of security for a particular cultural group within the healthcare system. Cultural security, for the purposes of this paper, is guided by the description provided by the Northern Territory Government of Australia "…a commitment that the services offered to […] will respectfully combine the cultural rights and values of Aboriginal people with the best that health and community service systems have to offer."[63]

In Canada, some scholars point to the Canada Health Transfer policy as an example of how First Nations groups were caught in a system of dependence on the federal government in addressing their specific health needs.[64] The Canada Health Transfer is the policy through which the federal government allocates funds to subnational governments. Specifically, critics of the Canada Health Transfer highlight that the federal government does not categorize health as an Aboriginal treaty right and subsequently holds the ability to approve or deny funding for First Nations proposals for community health.[65] Indeed, evaluations of the system in question indicate a lack of benefit at the local level, despite an increase in funding to First Nations communities.[66] Fortunately, improvements on this front have been made. In recognition of the importance of having culturally sensitive and adaptive healthcare for First Nations communities, three provinces (British Columbia, Alberta and Ontario) have adopted separate First

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[61] Sevean et al., 2573-2579.

[62] Dale C. Alverson et al., "One size doesn't fit all: Bringing telehealth services to special populations," *Telemedicine Journal and e-Health* 14, no. 9 (2008): 958.

[63] "Aboriginal Cultural Security," Northern Territory Government: Department of Health and Community Services, last updated 2002, accessed December 3, 2016, http://www.health.nt.gov.au/library/scripts/objectifyMedia.aspx?file=pdf/9/26.pdf, 2.

[64] Naomi Adelson, "The Embodiment of Inequity: Health Disparities in Aboriginal Canada," *Canadian Journal of Public Health* 96, (2005): 45-61.

[65] Ibid., 57.

[66] Miranda D. Kelly, "Toward a New Era of Policy: Health Care Service Delivery to First Nations," *The International Indigenous Policy Journal 2,* no. 11 (May 2011): 6.

Nations telehealth organizations.[67] These organizations are beneficial in dealing with health and well-being issues that are of particular concern for First Nations populations such as non-insulin dependent diabetes mellitus, infant mortality, suicide, and injuries related to fire.[68] Additionally, these organizations are helping to repair and build trust in Western medicine practices by blending the advantages of telehealth systems with the desires of the local community and, ultimately, providing resources to reduce the removal of individuals from their community. The Keewaytinook Okimakanak (KO) telehealth program, for example,

> …participated in an intensive telehealth information and education program including meeting with Health Committees, Band Councils and the general public to introduce the telehealth concept, identify opportunities and respond to concerns. KO Telehealth harnessed the interest in generated in telehealth to build a grassroots network that is owned and operated by the First Nations communities themselves as a catalyst for community empowerment and ownership.[69]

These initiatives are encouraging given the studies that indicate that First Nations people in Canada often experience unique health challenges that require healthcare solutions to be sensitive of these realities.[70] Critics of Canada's domestic human security policy in the North further call for an 'indigenous alternative' whereby "the referent object for life and quality of life [is] to be neither the state, nor the individual but the community, typically the remote small indigenous community which is embedded in the natural environment."[71] The notion of the community as the base unit for healthcare is not a present reality in Canada.[72] For now, focus remains on the individual alone. This situation highlights Canada's difficulty to administer human security, as defined by the UNDP, domestically. It must focus on security for the individual while also ensuring a broader security for cultural practices. The establishment of tailored health care programs, respecting rights to culture is, however, indicative of progress in addressing domestic insecurity concerns.

By having a permanent base located in urban areas, telehealth networks in Canada have the advantage of accessing a wide range of translation services to adapt to the needs of those in remote communities.[73] Additionally, the growing use of teleconferencing, whereby a patient can physically see

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[67] "2015 Canadian Telehealth Report," COACH: Canada's Health Informatics Association, last updated 2015, accessed December 2, 2016, https://livecare.ca/sites/default/files/2015%20TeleHealth-Public-eBook-Final-10-9-15-secured.pdf, 56.

[68] Adelson, 46-59.

[69] Sarah Muttitt, Robert Vigneault and Liz Loewen, "Integrating Telehealth into Aboriginal Healthcare: The Canadian Experience," *International Journal of Circumpolar Health* 63, no. 4 (2004): 410.

[70] J. Reading, "The Crisis of Chronic Disease among Aboriginal Peoples: A Challenge for Public Health, Population Health and Social Policy," accessed August 24, 2017 from http://cahr.uvic.ca/nearbc/documents/2009/CAHR-B2-Chronic-Disease.pdf, 1.

[71] Franklyn Griffiths, "Not that good a fit? 'Human security' and the Arctic," in "Arctic security in the 21st century," conference report co-convened by the Simons Foundation and the school for international studies, Simon Fraser University, Simon Fraser University, 2008, 59-60.

[72] Greaves, 219-240.

[73] Mary C. Masland, Christine Lou, and Lonnie Snowden, "Use of Communication Technologies to Cost-Effectively Increase the availability of Interpretation Services in Healthcare Settings," *Telemedicine Journal and E-Health 16*, no.6, (2010):739-745.

the specialist, addresses the issue of telehealth sustainability. As Jonathan Farag writes: "Good quality communication – including and beyond language – between the patient and providers will be a glue that contributes to quality cross-cultural healthcare delivery though telemedicine."[74]

A subsequent detriment to telehealth's success is the local community's willingness to accept ICTs. This paper applies Farag's research in the use of ICTs in sub-Saharan Africa to First Nations communities in northern Canada as both regions experience intimate relationships with traditional medicine. ICTs act as an effective channel through which those practice traditional medicine can network and transfer knowledge in the subject.[75] This is particularly important given that traditional healers are not recognized under the Canada Health Transfer policy.[76] Hesitancy towards ICTs has been equally reflected in Labrador and suggests that apprehensiveness about, and distrust of, a videoconferencing system is a relevant issue in all remote communities.[77]

The need to effectively communicate with residents is important in the discussion of technological advancements in healthcare administration; particularly, as the healthcare sector in Canada undergoes a shift towards health promotion, disease prevention, and an increased focus on effectiveness and decentralized decision-making.[78] It would be advisable for the Canadian federal and provincial governments to continue the practice of regionally-focused healthcare as particular health needs and concerns, specifically within Indigenous populations, can be addressed more effectively and efficiently.[79] A more productive health system – a result of telehealth implementation – can lead to greater physical security for the individual while promoting cultural security for the local community.

V. CONCLUSION

The relationship between telehealth and human security, in a Canadian context, is a positive one. Notwithstanding the direct impact on health, telehealth consequently increases an individual's economic security, the regional environmental security and a distinct community's cultural security. It is encouraging to see that, on an international level, studies outlining the benefits of telehealth services may be encouraging their use. It is important to recognize, however, that "[g]eneralisability is a problem for telehealth research as a whole, due to variability in clinical disciplines, environmental settings, workforce and health care financing."[80] In Canada, it is hoped that, as the link between telehealth and human security in remote regions becomes increasingly obvious, municipal, provincial, territorial, and

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[74] Jonathan Farag, "Cross Cultural Telemedicine: Sub-Saharan Africa," *Intersect* 9, no. 1 (2015): 12.

[75] Yiannis Koumpouros and Kostantinos Birbas, "Use of Information and Communication Technologies (ICTs) to Support Diffusion of Traditional Medicine across European and Asian Countries: The Greek Perspective," *Health Science Journal 7*, no.4, (2013): 356.

[76] Naomi Adelson, "The Embodiment of Inequity: Health Disparities in Aboriginal Canada," *Canadian Journal of Public Health* 96, (2005), 58.

[77] Katrina Peddle, "Telehealth in Context: Socio-technical Barriers to Telehealth use in Labardor, Canada," *Computer Supported Cooperative Work: The Journal of Collaborative Computing* 16, 6 (2007): 612.

[78] Ibid., 595-613.

[79] Adelson, 46-59.

[80] Wade et al., 11.

federal governments work together to fund, support and strengthen such practices. Importantly, there needs to be the sustained presence of functional northern communities within this process. As demonstrated through this paper, the benefits from telehealth in terms of the reduction of barriers to healthcare are manifold. It is telehealth's broader benefits that make it a clear policy choice to improve welfare and contribute wholly to the underdeveloped regions within developed countries. Finally, Canada cannot claim to be a champion of human security abroad if such gaps persist within its domestic practice.

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Making Lyme Disease Law:
The Role of Patient Advocacy in Health Law and Policy

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ABSTRACT

Over the last few decades, the power of patient advocacy groups to affect change in the healthcare system has grown. The internet has made it easier than ever for like-minded individuals to join forces regardless of geography. Patient advocacy serves an important purpose in a strong democratic society; they hold public institutions accountable for their actions, raise awareness for lesser known ailments, and humanize the medical sciences. Recognizing the value of the patient's perspective, many government initiatives have specifically sought out the opinion of patient advocates in developing health policy. One such example is the Federal Framework on Lyme Disease Act (FFLDA). Introduced because of patient concerns that Lyme disease patients were not being properly treated, the FFLDA mandates that the federal government develop a federal framework on Lyme disease that addresses surveillance, guidelines, and best practices. The FFLDA also mandated a conference be held to assist in developing the Framework, which was held in May 2016. In February 2017, the draft Framework was released for public feedback. Controversy surrounding Lyme disease is abundant. Patients, physicians, and researchers disagree about various aspects of the disease, how it manifests, how it should be diagnosed, and how it should be treated. From this gap, numerous diagnostic protocol and treatment regimens have been proposed as more suitable than current guidelines, with varying degrees of evidence supporting their efficacy. The concern is that allowing patient advocates to play such a prominent role in the development of the Framework not only is more costly and slower than expert-driven policy changes, but that it may lead to ineffective or harmful guidelines being implemented. I argue that the role of patient advocates and patient advocacy groups to influence policy making should be limited, particularly in controversial situations or where medical-evidence gaps exist.

I.   Introduction

Over the last few decades, the power of patient advocacy groups to affect change in the healthcare system has increased. The internet has made it easier than ever for like-minded individuals to join forces, regardless of geography. Whereas a person with a rare ailment once suffered alone, now patients can find each other with the click of a mouse. Patient advocacy serves an important purpose in a strong democratic society; they hold public institutions accountable for their actions, raise awareness for lesser known ailments, and humanize the medical sciences. Recognizing the value of the patient's perspective, many government initiatives have specifically sought out the opinion of patient advocates in developing health policy. One such example is the *Federal Framework on Lyme Disease Act (FFLDA)*.[1] Throughout the process of assessing the state of health care for Lyme disease in Canada and determining the path forward, patient advocates have played a prominent role. Introduced because of patient concerns that Lyme disease patients were not being properly treated, the *FFLDA* mandates that the federal government develop a federal framework on Lyme disease that addresses surveillance, guidelines, and best practices. The *FFLDA* also mandated a conference be held to assist in developing the Framework, which was held in May 2016. In February 2017, the draft Framework was released for public feedback.

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[1] SC 2014, c 37 [*FFLDA*].

Controversy surrounding Lyme disease is abundant. Patients, physicians, and researchers disagree about various aspects of the disease, how it manifests, how it should be diagnosed, and how it should be treated. From this lacuna, numerous diagnostic protocol and treatment regimens have been proposed as more suitable than current guidelines, with varying degrees of evidentiary support. The concern is that allowing patient advocates to play such a prominent role in the development of the Framework is not only more costly and slower than expert-driven policy changes, but also that it may lead to ineffective or harmful guidelines being implemented. Patient advocates may not contemplate resource allocation in the context of the entire healthcare system. They may not be capable of critically evaluating scientific information, or understanding the need to fund research focused on understanding the disease better rather than funding clinical trials in search of a cure. I argue that the role of patient advocates and patient advocacy groups to influence policy making should be defined and limited, particularly in controversial situations or where medical-evidence gaps exist. Clear guidelines should be established to define the role of patients and patient advocacy groups in health care policy decision-making to manage expectations and streamline the process. Such guidelines will help ensure that the benefits of patient involvement are realized, while protecting the integrity of Canada's health care system.

II. Patient Advocacy Groups

A. The Rise of Patient Advocacy Groups

Patient advocacy groups[2] are organized non-profit groups that are concerned with medical conditions or potential medical conditions and take actions to help people affected by those conditions and their families.[3] Patient advocacy groups often provide services, such as counselling and support groups, they disseminate information via websites and published materials, raise public awareness, and promote research.[4] These groups generally focus on access to health care services, health inequality, or issues related to specific illnesses and diseases, or some combination of the three. Advocacy, defined as "a catch all word for the set of skills used to create a shift in public opinion and mobilize the necessary resources"[5] is used to make institutions more reactive to the needs of particular communities or populations.[6] In health policy, advocacy is necessary to reframe diseases as a social issue rather than a personal problem.[7]

Since the mid-1980s, the ability of patient advocacy groups to participate in the Canadian

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[2] Various terms are used interchangeably in the literature, including patient groups, support groups, consumer groups, and embodied health movements.

[3] Susannah L. Rose, "Patient Advocacy Organizations: Institutional Conflicts of Interest, Trust, and Trustworthiness" (2013) 41:3 *JL Med & Ethics* 680 at 680 [Rose].

[4] *Ibid*.

[5] Lawrence Wallack et al, *Media advocacy and public health: power for prevention* (Newbury Park, California: Sage Publications, Inc: 1993) at 27.

[6] *Ibid* at 28.

[7] *Ibid* at 5.

political system has increased, resulting in a diluting of the traditional approach of evidence- based public health practices.[8] This rise can be explained by a variety of cultural, economic, and societal factors, including an increasingly educated middle class, tax exemptions for non-profits, increasing awareness of new illnesses, syndromes, diseases, and disorders, and technology that makes it easier to organize individuals.[9] The success of advocacy groups is reliant on their ability to gain credibility, which they have been able to secure in a number of ways. They have done so primarily by educating themselves, leveraging their power as research subjects, a job only they are capable to fill, and recruiting experts who support their agenda. Advocates have also relied on self-educating. The increasing availability of scholarly articles, clinical trial results and other reputable forms of evidence has made it easier for non-experts to educate themselves. This can make it easier for patients to be taken seriously by experts, but it also increases the likelihood that information will be misinterpreted.[10]

The internet and social media have played an important role in the flourishing of patient advocacy groups. Social media has changed the way that individuals and networks interact, share, process, and consume health information, starting in the 1990s with the widespread use of the internet.[11] Patients and other interested individuals share medical information, diagnostic information, practical aspects about daily life with the disorder, and potential therapies on blogs, Facebook groups, online chats, and other forums.[12] Social media has also been utilized specifically to create petitions and other campaigns to achieve access to experimental treatments, which is a drastically different approach to the traditional course of drug development and expanded access policies.[13] Social media and the internet present an opportunity for patients and families to learn from others around the world in similar situations, which can be helpful, particularly to patients suffering from rare diseases disorders, or illnesses. With information being exchanged and shared, it easily becomes vulnerable to misinterpretation and inaccurate reporting, making it difficult to determine what information is accurate.[14]

Over the past few decades, many patient advocacy groups have succeeded in achieving their goals. Patient advocacy groups have an inherent credibility as they are perceived as more trustworthy

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[8] Constance A Nathanson, *Disease Prevention as Social Change: The State, Society and Public Health in the United States, France, Great Britain, and Canada* (New York: Russell Sage Foundation, 2007) at 206.

[9] Ann C. Keller & Laura Packel, "Going for the Cure: Patient Interest Groups and Health Advocacy in the United States" (2014) 39:2 *J Health Pol* 331 at 335 [Keller & Packel]

[10] Steven Epstein. *Impure Science: AIDS, activism, and the Politics of Knowledge* (Berkeley: University of California Press, 1996) at 335-6.

[11] Tim K. Mackey & Virginia J. Schoenfield, "Going "Social" to Access Experimental and Potentially Life-saving Treatment: An Assessment of the Policy and Online Patient Advocacy Environment for Expanded Access" (2016) 14:17 *BMC Medicine* [Mackey & Schoenfield]; Musa Mayer, "Patient Advocacy in Research: Merely an Afterthought?" (2011) 4:2 *Patient* 69 at 69 [Mayer].

[12] J.G. Hall, "The Role of Patient Advocacy/Parent Support Groups" (2013) 103:12 *South African Medical Journal* 1020 at 1020. [Hall].

[13] Mackey & Schoenfield, *supra* note 11.

[14] Gayle A. Sulik, Carrie Cameron & Robert M. Chamberlain. "The Future of the Cancer Prevention workforce: Why Health Literacy, Advocacy, and Stakeholder Collaborations Matter" (2012) 27: Suppl 2, *Journal of Cancer Education* S165 at S167.

than corporations or other public agencies with obvious biases to cut costs.[15] As a result, they are increasingly consulted by healthcare agencies, research institutions, medical societies and the drug industry.[16] Perhaps the most influential case study documenting the power of patient advocacy groups is HIV/AIDS advocacy. In the 1980s, HIV/AIDS activists successfully campaigned for more research and more attention to the condition, but the concentration of the efforts was randomized controlled trials. Well-organized activists attacked various aspects of standard randomized controlled trials, arguing that certain requirements, such as the exclusion of patients who take other medication unrelated to the study, were unnecessarily restrictive.[17] Eventually joined by sympathetic clinicians, activists succeeded in persuading researchers that prerequisites for randomized controlled trials could be relaxed without sacrificing scientific integrity. Many patients also refused to participate in research where there was a possibility they might receive a placebo instead of an active agent, arguing that it was inhumane to knowingly withhold potential treatment. Ultimately, activists were successful in changing clinical trial practices, and convinced scientists and researchers to view them as valuable contributors.[18]

B. The Role of Patient Advocacy Groups

Patient advocacy groups serve a variety of functions. Their actions impact the public, health policy, and the lives of patients. Advocacy organizations promote diverse public interests separate from government and corporate interests and raise awareness about illnesses and diseases that may not otherwise be discussed.[19] They seek change through activism, lobbying to different government agencies to insert the patient perspective into a field typically dominated by health care professionals.[20] Patient advocacy groups are capable of affecting health policy in many ways; in this paper, I focus on two broad categories: research and information dissemination.

When it comes to research, advocacy groups have typically been involved in three areas: funding, design, and ethics. Advocacy groups can play a large role in the allocation of research funds. Proponents of funding advocacy contend that advocacy involvement in research funding allocation will result in a research budget more consistent with public preferences and interests, better informed government officials and scientists, and will benefit patients and their families. Their involvement will

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[15] Rose *supra* note 3 at 680; Lofgren, *supra* note 6 at 228.

[16] Cinzia Colombo et al, "Patient Organizations' Funding from Pharmaceutical Companies: Is Disclosure Clear, Complete and Accessible to the Public? An Italian Survey" (2012) 7:5 PLoS ONE at 1; Hall, *supra* note 12 at 1020.

[17] Mayer, *supra* note 11 at 69; Keller & Packel, *supra* note9 at 333; Dresser, Rebecca. *When Science Offers Salvation: Patient Advocacy and Research Ethics* (New York: Oxford University Press, 2001)at 24 [Dresser].

[18] Ibid at 24-5; Margo Michaels & Deborah Collyar "Research Advocacy in Traditional Research Settings: Questions of Influence and Legitimacy in Jo Anne L Earp, Elizabeth A. French & Melissa B. Gilkey, eds, *Patient Advocacy for Health Care Quality: Strategies for Achieving Patient-centered Care* (Mississauga: Jones and Bartless Publishers, 2008) at 446.

[19] Sheila M. Rothman, "Health Advocacy Organizations and Evidence-Based Medicine" (2011) 305:24 *Journal of the American Medical Association* 2569 at 2569 ; Rose, *supra* note 3 at 680.

[20] *Ibid*; Melissa B. Gilkey, Jo Anne L. Earp & Elizabeth A. French "What is Patient Advocacy" in Jo Anne L Earp, Elizabeth A. French & Melissa B Gilkey, eds, *Patient Advocacy for Health Care Quality: Strategies for Achieving Patient-centered Care* (Mississauga: Jones and Bartless Publishers, 2008) 21.

help to reallocate funding more consistent with public preferences, because scientific curiosity and professional reasons, which typically guide research funding allocation often deviate from public preferences. Funding advocacy helps to bring the human costs of disease and illness to the forefront of the decision-making process. Furthermore, funding advocacy can help raise public awareness, which can also lead to higher rates of local funding and charitable giving.[21]

However, the power of patient advocacy groups lobbying for research funds can have undesirable consequences. It can result in research funding allocation that exacerbates social inequalities rather than alleviating them. It can result in funding poor-quality studies where advocates are powerful, while neglecting more impactful studies with less powerful advocates. Many interests are at stake when research funding allocation decisions are made, and when patient advocates sit at the table they do not do so equally across all diseases and illnesses. Groups with powerful connections or more "presentable" diseases may have an advantage accessing funds.[22] This was the case with HIV/AIDS advocates, who were incredibly powerful and educated. Comparatively, advocates for rarer, less prevalent diseases may not benefit from that same knowledge and skill base.[23] This is problematic because more effective advocates may not represent the health issues that should be prioritized, based on objective criteria such as social burdens of disease and the potential for scientific funding. If advocacy groups continue to influence funding decisions, it is possible that funding could end up focusing on conditions that affect influential groups or individuals rather than conditions that affect other populations equally.[24] In doing so, quality of the proposed studies may become subordinate to the influence of the groups, resulting in funding poorly designed studies that contribute little to health and medical sciences. To counter this, policies should be put in place to ensure that interest groups have fair representation in research decision making.[25]

In terms of research design, advocacy groups can both add to and detract from research quality and impact. Involving patient advocates can help to encourage collaboration among researchers and refocus to more practical, meaningful goals as opposed to preferring research that will be most influential for their career.[26] When researchers consult participants of studies to see what their concerns are and what matters to them, this increases enrollment, community support, and cooperation of participants.[27] Advocates have a unique understanding of the impact of illness and disease on patients and families, which can help determine what research proposals should deserve funding. This personal knowledge of the impact of disease can counteract the "professional myopia" that results when scientists stray too far from the humanistic goals of medical research.[28] Advocates can also have a negative impact on research design and progress. Advocates tend to focus on research solely with the hopes of finding a cure. Critics of the involvement of patient advocates in research design and funding

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[21] *Ibid* at 96.

[22] *Ibid* at 97.

[23] *Ibid* at 156.

[24] *Ibid* at 98.

[25] *Ibid* at 156.

[26] Mayer, *supra* note 11 at 70.

[27] Dresser, *supra* note 17 at 30-32.

[28] *Ibid* at 154.

note that this may deter progress as research focusing on basic scientific principles may be undervalued compared to research, even poorly designed research, that may provide a new treatment.[29] Advocacy groups can also unwittingly impede research progress by advocating for research studies that are too narrow, focusing on specific treatments rather than basic science that is critical to clinical progress. In doing so, they can promote unproven interventions, prolonging, or in some cases even precluding research to determine the effectiveness of such interventions.[30]

Perhaps more influential than their role in research design is the power of patient advocacy groups to disseminate information. This issue is two-fold. The first issue to consider is where advocates receive their information and how they interpret it, and the second issue is how patient advocacy groups take that information and communicate it to their group members and the public. The common thread through the transfer of information between scientists, advocates, and the public is the role of the media and the disastrous effects of inaccurate reporting. Advocates receive and collect much of their information from the media; if media reports fully captured the nuances of scientific and medical journal articles, this could represent a revolutionary empowerment of advocates and the public, leveling the playing field between professionals and non-professionals.[31] Unfortunately this is not typically the case. There are many examples of the harms that have occurred following an inaccurate news story regarding a possible treatment or medical breakthrough.[32] Inaccurate reporting, often the result of pressure on journalists and scientists to exaggerate research results, can generate interest in treatments or interventions with little evidence supporting their effectiveness, or may similarly discourage patients from seeking treatment or services with demonstrable effectiveness by inappropriately skewing the risks. Such media coverage can also cause patients and the public to support policies and research funding allocations not based in evidence.[33] This short-sighted reporting style, favoured for its economic and career boosting effects by both scientists and journalists, can have dire long-term consequences: it erodes public trust in both medical and media institutions.[34] On top of this, patient advocacy groups tend to further exaggerate the benefits or risks of research results reported by the media in their reporting to their group members. Patients trust these organizations to act on their behalf and to provide accurate information, and patient advocacy groups are regarded as a trusted news source.[35]

Advocacy groups influence patients' understandings of various aspects of the illness or disease they concern themselves with, and help them make decisions about health care and participation in

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[29] *Ibid* at 154-5.

[30] *Ibid* at 10.

[31] *Ibid* at 131.

[32] See e.g. *ibid* at 132-3 (for examples of the consequences from inaccurate news reporting).

[33] Roberto Grilli, "Media Have Key Role in Shaping Use of Health Services" (1999) 319:7212 *British Medical Journal* 786; See generally Dresser, *supra* note 17 at 134-139 (different effects of journalists and scientists on media misinformation).

[34] *Ibid* at 141.

[35] National Health Council "Key Survey Findings" (1997), as cited in Dresser, *supra* note 17 at 148 (US survey found that 93 % of respondents said advocacy groups were among the most believable sources of health information, receiving the same credibility rating as physicians).

research studies.[36] It is clear that there are still many unknowns associated with including patients in the policy making process. While the benefits are significant enough to warrant continue involvement of patients, the possible drawbacks warrant further study into how to best mitigate or eliminate some of the above-mentioned challenges, so that the benefits of patient advocacy can be realized and utilized.

III. Lyme Disease and Patient Advocacy

A. Background

Lyme disease provides a contemporary case study of the impact of patient advocacy on health policy and law, both locally in Canada and internationally. The history of Lyme disease is steeped in advocacy. It was first discovered in Old Lyme, Connecticut in 1975 after concerned mothers "pressed it into medical consciousness" by advocating on behalf of their children.[37]

Lyme disease is now the most common vector-borne disease in North America, and has been the source of ongoing controversy.[38] There is extensive disagreement regarding many aspects of the disease, including diagnosis, treatment, symptoms, and nomenclature, that has created a large amount of confusion among patients and the public. Numerous patient advocacy groups have formed in Canada, most notably the Canadian Lyme Disease Foundation (CanLyme), a registered non-profit charitable organization that focuses primarily on awareness, research, literature review, and advocacy.[39] Numerous other national and regional support and advocacy groups exist, with varying levels of advocacy efforts.[40] The rest of this paper will examine the impact of Lyme disease patient advocacy groups in influencing the policy change.

B. Legislative Response

In response to constituent concern, Member of Parliament Elizabeth May introduced Bill C-442, *An Act Respecting a Federal Framework on Lyme* Disease.[41] In 2014, the *FFLDA* received royal assent and became law. Section 3 of the *FFDLA* requires the federal government to develop a comprehensive

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[36] Dresser, *supra* note 17 at 131.

[37] John J. Halperin, "Prolonged Lyme Disease Treatment: Enough is Enough" (2008) 70 *Neurology* 986 at 986. [Halperin].

[38] T.F. Hatchette, I. Davis & B.L. Johnston "Lyme Disease: Clinical Diagnosis and Treatment" (2014) 40:11 *Canada Communicable Disease Report* 194 at 196.

[39] Canadian Lyme Disease Foundation, "About", online: <https://canlyme.com/about/>.

[40] See e.g. Lyme Action Group, online: <http://lymeactiongroup.blogspot.ca/>; Lyme Disease Network, online: <http://www.lymenet.org/SupportGroups/Canada/>; Lyme Ontario: About Us, online: <http://lymeontario.com/about/about-us/> ; Ontario Lyme Alliance, online: <http://www.ontariolymealliance.ca/aboutus.html>; Lyme Disease Association of Alberta: What We Do, online: <http://www.albertalyme.org/about-ldaa/what-we-do>.

[41] Canada, 2nd Sess, 41st Parl, 2013 (assented to 16 December 2014).

framework on Lyme disease addressing prevention, education, surveillance, and treatment.[42] The framework's goal is to improve current diagnostic and treatment protocols to decrease the physical, psychological and financial burdens on patients with Lyme disease. After the *FFLDA* became law, the public was encouraged to provide feedback on the Federal Framework's goals. The Public Health Agency of Canada ("PHAC") held a consultation period from June 1, 2015 to June 30, 2015 to allow stakeholders and Canadians to submit feedback on the three themes of the Conference: national medical surveillance, guidelines, and education and awareness.[43] CanLyme expressed discontent for not being consulted in the creation of the consultation questions, stating that,

> Without any consultation with the most important stakeholders, PHAC sent this survey out to physicians, nurses, naturopaths, and patient groups…[i]t directs those respondents to the survey to answer pre-designed questions, offers very limited ability for input, and is more about seeking data about who responds, and how they like what the government has done so far. It provides no room for the debate of the quality of the data PHAC has gathered and disseminated using our tax dollars.[44]

PHAC has stated that a summary of the consultation period will be posted on their website, but as of January 31st 2017 there is no online summary report available.

Additionally, in June 2015 a one-day "Best Brains Exchange" ("BBE") workshop was held by the Canadian Institute of Health Research and PHAC in Ottawa. Attendees included physicians, clinicians, researchers, and policy makers. The goal of the workshop was to "highlight existing and relevant research evidence on the topic; identify where gaps in evidence lie; bring together both decision maker and researcher expertise on the issue; and, candidly discuss the applicability of the research."[45] The BBE allowed over 35 stakeholders from different jurisdictions and disciplines to share perspectives on the diagnosis of Lyme disease. The objective of the BBE was to determine how effective current diagnostic tests are in detecting Lyme disease at various stages (early, late, and post-treatment), and what novel methods are promising for improving diagnosis.[46] During the BBE, presenters and participants recognized the current challenges with diagnosing Lyme disease. Areas for further research were identified, including innovation from other fields, such as oncology, exploring biodiversity of ticks and the *B. burgdoferi* bacteria, the need for better information exchange between academics and clinicians, and transitioning from passive surveillance to active surveillance.[47]

As mandated by the *FFLDA*, the Federal Framework on Lyme Disease Conference was held on May 15-17, 2016 in Ottawa. The aim of the conference was to assist in the development of a framework

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[42] *Supra* note 1.

[43] Public Health Agency of Canada, "Consultation on the Federal Framework on Lyme Disease" (28 July 2015) online: <http://www.phac-aspc.gc.ca/about_apropos/engagement-participation/lyme-consultation- eng.php>.

[44] Canadian Lyme Disease Foundation, "The Federal Government of Canada NOT Acting in Good Faith so Far on Bill C-442", (6 June 2015) online: <https://canlyme.com/2015/06/06/the-federal-government- of-canada-not-acting-in-good-faith-so-far-on-bill-c-442/>.

[45] Canadian Institutes of Health Research "Best Brains Exchange Report – Lyme Disease Diagnostics" (31 March 2016) online: <http://www.cihr-irsc.gc.ca/e/49713.html>.

[46] *Ibid*.

[47] *Ibid*.

to prevent and reduce Lyme disease-related health risks, focusing on medical surveillance for tracking, guidelines and best practices, and standardized educational materials.[48] The Government of Canada released a Summary Report of the Conference, indicating that 62% of the in person and online participants self-identified as patients, caregivers, or patient groups.[49] Jim Wilson, president of CanLyme, described this as a "well balanced" conference.[50] I respectfully disagree, and instead argue that patient and patient advocate perspectives eclipsed those of the other attendees. Key messages identified in the Conference Summary include the lack of awareness of Lyme disease within the medical community, the prevalence of misdiagnosis, discontent with patients seeing multiple specialists, prevalence of patients seeking treatment outside of Canada, and the inadequacy of diagnosing, reporting, and awareness of Lyme disease. Key messages from patients related to Guidelines and Best Practices include the need for interim solutions for improved diagnostics while science catches up, and protection for physicians who treat outside the existing treatment guidelines, among other things.[51]

In February 2017, the draft Federal Framework was made available to the public for review and comments.[52] The draft is vague, but given the current state of knowledge on Lyme disease, making specific promises or suggestions is not feasible. The draft framework identifies broad projects to be undertaken, such as conducting a costs analysis of the direct and indirect costs of Lyme disease in Canada, and implementing new data collection methods. Most of the actions focus on expanding current programs or initiatives or supporting research endeavors. A petition on Change.org has already been initiated asking the government to reject the draft Framework, proposing that "[t]he draft framework is a violation of Public Health's [sic] mandate, Bill 442 and possibly the Canadian Charter of Rights and Freedoms (s.7)."[53] As of February 17, 2017, the petition has been signed by over 20,000 supporters. Can Lyme has also spoken out against the draft Framework, arguing that the draft fails to meet the mandate of the *FFLDA* and calling for the draft to be "set aside and rewritten with the patients and their experts."[54]

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[48] Government of Canada, "Conference to Develop a Federal Framework on Lyme Disease May 15-17, 2016: Conference Summary Report" (October 20, 2016) online: <http://healthycanadians.gc.ca/publications/diseases-conditions-maladies-affections/summary-report- lyme-2016-conference-rapport-sommaire/index-eng.php?_ga=1.86750232.1497520611.1485190863> [Conference Report].

[49] *Ibid* (the remainder was 6% provincial government, 5% academic/research, 7% federal government, 13% medical professional/association, 7% other).

[50] Canadian Lyme Disease Foundation, "Draft of report to parliament regarding Bill 442 now online and open to public input" (7 February 2017) online: <https://canlyme.com/2017/02/07/draft-of-report-to- parliament-regarding-bill-442-now-online-and-open-to-public-input/> ["Draft of report"].

[51] Conference Summary, *supra* note 48.

[52] Government of Canada, "Consultation on the draft Federal Framework on Lyme disease" (17 February 2017) online: <https://www.canada.ca/en/public-health/programs/consultation-draft-federal-framework-lyme-disease.html>.

[53] "Ticking Lyme Bomb in Canada. YOU are at RISK. Sign now!" Change.org online: <https://www.change.org/p/minister-philpott-ticking-lyme-bomb-in-canada-fix-canada-s-lyme-action-plan-now?source_location=topic_page> (assuming that Public Health refers to the Public Health Agency of Canada, also that Bill 442 refers to former Bill c-442, now the *FFLDA*) ["Ticking Lyme Bomb"].

[54] "Draft of report", *supra* note 50.

C. Implications

Lyme disease patients and patient advocacy groups have been involved at almost every step of the policy process. While their activities in general are not troubling, there are a few reasons for concern. First, many Lyme disease advocates hold beliefs about Lyme disease with either no scientific support, or supported by flawed science. Comparisons have been drawn between Lyme disease advocates and other anti-science movements such as anti-vaxxers.[55] Some of the controversial views held by advocates include the following: Lyme disease requires being treated by months or years of antibiotics[56], Lyme disease can be transmitted sexually or in-utero[57], and the concept that Lyme disease can present as a chronic disease.[58]

Additionally, many of the changes sought by patients show a clear disregard for the broader implications for the Canadian healthcare system. For example, patients advocated for the need to amend the *Health Care Act* to reimburse past and future out-of-pocket expenses incurred by patients not covered by provincial health insurance, without acknowledging the consequences of providing coverage for treatment or therapies not deemed useful or safe by evidence. Patients advocated for automatic testing of spouses of patients with Lyme disease, due to their beliefs that Lyme disease can be transmitted through bodily fluids, without consideration for the privacy implications of such a policy, or the impracticality of such a practice.[59] Patients also advocated for lifting restrictions on prescribing antibiotics, based on their belief that long-term antibiotics are necessary for treatment and management of chronic Lyme disease. Currently, there are recommendations regarding the appropriate course of antibiotics for the treatment of Lyme disease, however this does not prevent physicians from using their clinical judgement to treat outside those limits, provided they are doing so in the best interest of their patients.[60] Patients seem to be operating on the understanding that physicians will be prosecuted or punished for treating outside these guidelines, however it has been made clear that physicians are encouraged to use their judgement within reason.[61] This suggestion fails to consider the implications of lifting such restrictions, such as antibiotic resistance or potential abuse by physicians.

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[55] See Paul G. Auwaerter et al, "Antiscience and Ethical Concerns Associated with Advocacy of Lyme Disease" (2011) 11:9 *Lancet Infectious Disease* 713 at 720 [Auwaerter].

[56] See e.g. Halperin, *supra* note 37.

[57] See e.g., Raphael B. Stricker & L. Johnson, "Lyme Diease: The Promise of Big Data, Companion Diagnostics and Precision Medicine" (2016) 9 *Infection and Drug Resistance* 215 citing Raphael B. Stricker & Marianne J. Middelveen, "Sexual Transmission of Lyme Disease: Challenging the Tickborne Disease Paradigm" (2015) 13, *Expert Review of Anti-Infective Therapy* 1306 (both articles allude to the possibility of Lyme disease being sexually transmitted, however studies cited are either animal studies, or only find evidence of bacteria in vaginal and semen secretions, not that it can be transmitted via those secretions); See also "Ticking Lyme Bomb', *supra* note 57.

[58] Auwaerter, *supra* note 55 at 68-70.

[59] Conference Report, *supra* note 48.

[60] Government of Canada, "For Health Professionals: Lyme Disease" (02 August 2016) online: <https://www.canada.ca/en/public-health/services/diseases/lyme-disease/health-professionals-lyme-disease.html#a3> (treatment guidelines are listed, however it is specified that "[t]he regimens may need to be adjusted depending on a patient's age, allergies, medical history…").

[61] See e.g. Conference Report, *supra* note 48.

While policy changes sought by patients were not reflected in the draft Framework they have already demonstrated the willingness and capability to continue to fight. If patient advocates are successful in changing the language or substance of the Framework, there are many implications to consider. For example, including patient perspectives could prove dangerous if it results in the approval of treatments or therapies that have no proven efficacy. Lantos et al identified more than thirty alternative treatments marketed towards Lyme disease patients on the internet, categorized as oxygen and reactive oxygen therapy, energy and radiation-based therapies, nutritional therapy, chelation and heavy metal therapy, or biological and pharmacological therapies. Upon review of medical literature, none of the identified treatments were supported by evidence, and many were identified as potentially harmful.[62] These inappropriate therapies have the potential to prolong appropriate treatment, cause severe side effects, or in some cases, death.[63] As noted above, patient advocacy groups, and even physicians, are lobbying the government to amend the guidelines to allow long-term antibiotic use, for months, years, or even indefinitely.[64] There is no concrete evidence to support this as a valid treatment option, and it fails to consider the very serious individual and community-wide side effects that such rampant and careless use of antibiotics could cause.[65] Further, if they are successful in changing clinical guidelines for treating Lyme disease, this could set a precedent for other advocates to similarly pursue changes to clinical guidelines in absence of any evidence, creating a system of patient-guided medical guidelines.

Advocates also expressed a desire to grant immunity for physicians and alternative medicine practitioners who practice outside of the recommended guidelines by imposing a "moratorium on penalties/professional consequences for physicians diagnosing and treating Lyme disease" as well as imposing penalties on medical colleges that prosecute physicians who treat Lyme disease patients.[66] Moreover, they sought to have physicians who have lost their medical license "due to treating Lyme disease" reinstated. This goal also fails to comprehend the wide-spread implications of such a policy. If this were to incorporated into the Framework, it would remove safeguards that are in place to prevent exploitative behaviour and ensure patients are protected from either unqualified or misinformed physicians.

Patient-sought changes to Lyme disease research are also indicative of Lyme-disease tunnel vision. Patients advocated to loosen the diagnostic criteria for involvement in research, while researchers identified the need to have clearly articulated cohorts to ensure the results are as useful

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[62] Lantos, Paul M. et al. "Unorthodox Alternative Therapies Marketed to Treat Lyme Disease" (2015) 60:12 Clinical Infectious Diseases 1776.

[63] See e.g. Robin Patel et al, "Death from Inappropriate Therapy for Lyme Disease" (2000) 31:4 *Clinical Infectious Diseases* 1107 (a 30 year old woman died from a septic thrombus on a catheter that was in place for over 2 years to administer antibiotics to treat an unproven case of Chronic Lyme disease).

[64] See e.g. Canadian Lyme Science Alliance, online: <http://www.lymesciencealliance.org> (the CLSA is an organization of scientists and clinicians that started a petition requesting "sound, science-based policy from the *FFLDA* including long term antibiotic treatment for chronic Lyme disease).

[65] Paul G. Auwaerter & Michael T. Melia, "Bullying Borrelia: When the Culture of Science is Under Attack" (2012) 123 *Transactions of the American Clinical and Climatological Association* 79.

[66] Conference Summary, *supra* note 48.

and accurate as possible. Allowing patients without a clear diagnosis of Lyme disease to participate in research could undercut the research process and slow down the advancement of knowledge. Furthermore, providing "interim relief" for those suffering from Lyme disease, as requested at the Conference, could result in the same impediments experienced by AIDS researchers.[67] If patients are granted access to long-term antibiotics funded by provincial health plans, the desire to participate in clinical trials will presumably suffer, effectively slowing down the research that patients and physicians are advocating for, as well as decreasing motivation for alternative research efforts that could prove to be more promising.

All of this is not to suggest that the patient involvement did not contribute important insights. Patients stressed the need to further understand the different strains of Lyme disease, the need to fund more clinical research, and the need to ensure physicians across the country are aware of how to diagnose and treat Lyme disease.[68] These suggestions were echoed by policy makers, researchers, and physicians present at the conference. However, most of the constructive suggestions raised at the Conference were also discussed at the BBE, which occurred prior to the Conference. This undermines the effectiveness of holding such large patient consultation events. Upon review of the draft Framework, it does not appear that patient perspectives from the Conference had much impact on the Framework, which further supports the suggestion that such exhaustive endeavors to involve patients adds little value to the process.

IV. Conclusion

Patient advocacy is pervasive in Canadian health policy, and will likely continue to be. The Lyme disease case study provides valuable insight as to how to better manage the involvement of patient advocacy in developing health policies in the future. While the Conference provided a much-needed outlet for frustrated patients and allies to have their voices heard, it does not appear that the patient input influenced the draft Framework. The draft Framework confirms many of the conclusions made at the BBE, primarily that research and awareness should be the primary focus until more evidence is available to support new diagnostic or treatment guidelines. This experience has left patients and advocates feeling betrayed as they double-down to fight back against the draft framework. This highlights the importance of managing expectations when patient advocates are involved in the policy-making process. It is clear that policy-makers and patient advocates had different expectations as to what their involvement signified. While patient advocates are fighting to have their perspectives incorporated into the Framework, the lack of patient concerns represented in the Framework suggests that the intention of patient involvement was to obtain a holistic view of the impact of Lyme disease on Canadians; not to create patient- driven policy.

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[67] *Ibid*.

[68] See e.g. Cécile Ferrouillet et al, "Lyme Disease: Knowledge and Practices of Family Practitioners in Southern Quebec" (2015) 26:3*Canada Journal of Infectious Diseases and Medical Microbiology* 151 (results shows a moderate lack of knowledge and suboptimal practices).

Moving forward, it is important to continue to research patient advocacy and how it can be most effective in drafting ethical and effective health policy. One way to improve the experience of patient advocates is to develop federal or provincial guidelines for how to involve patients in the policy-making process, including appropriate limitations to their involvement. This will ensure that different advocates are afforded the same opportunities regardless of their size or influence, and will ensure that all parties involved are conscious of their roles in the process, as well as their limitations. This would help to avoid repeating the experience of Lyme disease advocacy, who argue that the government has failed to incorporate their perspective. However, the *FFLDA* does not mandate that the Framework include all the demands sought by patients, it only mandates that patient representatives be included in the Conference, which they were. Somewhere along the way, patient advocates interpreted the *FFLDA* to mean that the government had a duty to consult patient advocates at every stage of the process. Had the relationship between patient advocacy and policy-makers been better defined, most of the antagonism that current exists between patient groups and policy makers could have been avoided. Such guidelines would ensure that patients are included in a meaningful way but are not afforded absolute deference.

Second, increasing the capacity of advocates to be critical of scientific and medical research will permit advocates to participate more meaningfully in policy discussions. In doing so, I do not suggest that experts should go unchallenged; pushing back against expert evidence is a necessary function of a democratic society that ensures government funded agencies remain accountable to the population it serves. To conclude, I do not suggest putting limitations on patient advocacy as a method for silencing patients; this paper has shown that there is great value in including patients in various aspects of health policy. Rather it is to ensure that patients can be assured that their concerns will be genuinely considered in a cost-effective manner, and that evidence-based information will prevail in an informational environment increasingly dominated by pseudoscience and unethical promotion of services that take advantage of vulnerable persons.

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Bridging Physicians and Patients with Social Media: The Good, the Bad, and the Ugly

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ABSTRACT
Social media has fundamentally changed health care by enabling online multi-ways of seeking and sharing medical information and initiated borderless communications among physicians and patients. In a sense, the communications among physicians and patients induced by the wide use of social media in health care create endless possibilities in health behaviour changes. Currently there is a disconnect between physicians' and patients' use of social media and communication patterns. Bridging communications between physicians and patients proves to be an effective way of contributing to the quality of health information available on social media and improving health outcomes. However, benefits and risks come hand-in-hand. Unclear recognitions of the trade-offs between benefits and risks, uncertainty about social media, and over-strict legislation and policy only result in physicians' and patients', especially physicians' decisions on not using social media at all for direct communication purposes as a measure of self-protection. Therefore, ongoing studies and more interdisciplinary research are required in order to provide evidence on the most effective ways of using social media. This paper will demonstrate how health policy and guideline-making are crucial in terms of creating incentives for physicians and patients to communicate directly via social media. This paper aims to examine the needs, benefits, risks, and feasibility of bridging communications between physicians and patients—to what extent can physicians and patients directly communicate with each other via social media? Methodology includes a systematic and in-depth review of literature with a focus on qualitative and quantitative studies. To close the discussion, the paper will identify the gaps that prevent direct communication and provide recommendations on how to fill the gaps in order to achieve two-way communication between physicians and patients.

Introduction

Kevin Pho, a physician who writes a well-known blog, Kevin MD, states that social media is where the patients are going to be in the future (Prasad, 2013). In fact, social media is already playing an important role in our health care culture. For example, according to United Kingdom (UK) statistics, Facebook is reported as the fourth most recognized source of healthcare information (Sharma & Kaur, 2017). The wide use of social media allows effective communication and results in ripple effects. For example, physicians are able to share health- related knowledge and information. By accessing this information, patients may change their health-related behaviours. Yet there are fundamental differences between physicians' and patients' choices and intentions when using social media for communication. A descriptive online survey of 139 patients and 153 health care professionals in obstetrics and gynecology shows that health care professionals primarily use LinkedIn (70.7%) and Twitter (51.2%) for communication with their colleagues as well as for marketing reasons, while patients primarily use Twitter (59.9%) to increase knowledge and exchange advice, as well as Facebook (52.3%) for social support and advice exchange (Antheunis, Tates, & Nieboer, 2013). Therefore, although both physicians and patients use social media, there is a disconnect between physicians' and patients' communication patterns. This paper aims to examine the needs, benefits, risks, and feasibility of bridging communications between physicians and patients—to what extent can physicians and patients directly communicate with each other via social media? To close the discussion, the paper will provide

recommendations on how to fill the gaps in order to achieve two-way communication between physicians and patients.

Potential benefits of bridging communication between physicians and patients include improving the quality of health-related contents online, targeting patient populations, specifying health topics, and improving health outcomes. However, risks outweigh the benefits. One of the major concerns is around privacy and security when using social media to communicate health topics. Since social media shatters the traditional restraints in face-to-face communication between physicians and patients, such as time and location, and initiates a more open and relatedly casual communication culture, the relations between physicians and patients change accordingly. Health policies and guidelines respond to the increasingly blurred boundaries between physicians' private and public persona in terms of professionalism on social media (Pathiraja & Little, 2015). For example, in the UK, guidance on social media from the General Medical Council (GMC) and the British Medical Association states that standards do not change when doctors communicate through social media rather than face-to-face or through other traditional media (Pathiraja & Little, 2015). However, uncertainty of social media's influence on health-related behaviour, as well as privacy concerns prevent physicians and patients from communicating directly with each other via social media channels. Ongoing research on benefits, evidence on behaviour influence, and policy making can offer solutions to these concerns.

Background: Social media in health care

Social media has fundamentally changed health care by breaking the traditional hierarchical structure of medical knowledge and enabling online multi-ways of seeking and sharing medical information for both physicians and patients (Sharma & Kaur, 2017). Social media also enables low costs when transmitting public health messages to large numbers of targeted individuals (Flaherty & Walden, 2015). For example, in 2014 during the Ebola outbreak in west Africa, global experts, including scientists, healthcare professionals, and policy makers, contributed to a productive online forum via Twitter (Flaherty & Walden, 2015). The Mayo Clinic has one of the most popular medical provider channels on YouTube, more than 260,000 followers on Twitter, and an active Facebook page with more than 65,000 fans (Prasad, 2013). It also creates the Mayo Clinic Center for Social Media, which demonstrates its leadership in implementing social media tools by commencing podcasting as early as 2005 (Prasad, 2013).

In a sense, social media has initiated borderless communications among physicians and patients (Pathiraja & Little, 2015). There are several benefits of such borderless communications. First, patients can access to health information, regardless of age, education, race/ethnicity, and locality (Syed-Abdul, Gabarron, Lau, & Househ, 2016). Second, health communication on social media provides valuable peer, social, and emotional support, as patients can share their experiences through discussion forums, instant messaging, or online consultation with a qualified clinician (Syed-Abdul et al., 2016). For example, blogs have been used to galvanize support for physicians and their patients (Peek, Richards, Muir, Chan, Caton, & MacMillan, 2015). Third, patient's health-related behaviours can be influenced. For

example, spreading organ donation information across Facebook users results in 22% increase in new online registrations on the day the initiative began (Sharma & Kaur, 2017). Social networks also contribute to behaviour influence in obesity, smoking cessation, eating behaviours, and sexual risk behaviours (George, Rovniak, & Kraschnewski, 2013). In this way, across the vast online networks, patients' health behaviors can both influence and be influenced by the health behaviors and outcomes of others (George et al., 2013).

How physicians and patients communicate via social media respectively

Physicians use social media to communicate for educational purposes and to improve health outcomes. In general, learning provides incentive for physicians to participate in the social media communities because they will be able to access and share expertise, discover who knows what within the healthcare community, and access novel information through interactions with members who have diverse personal and professional backgrounds (Gilbert, 2016). For example, "tweeting the meeting" is a new trend of sending out tweets during conferences, as live tweeting during a formal medical presentation in the form of visual, chronological, and retrievable conversations benefit all levels of learners across vast geographic distances (Duricich & Zee- Cheng, 2015). Moreover, current and ongoing researches suggest that the continuously evolving social media in today's technology-driven, ever-connected world provides motivations to lifelong learning, which is an integral part of medical education itself (Duricich & Zee-Cheng, 2015). Therefore, social media creates a great opportunity to promote better clinical practice by creating better dialogues among physicians and providing continuous medical education (Prasad, 2013).

Social media is also used to improve health outcomes. A qualitative survey of 24 physicians through snowball sampling in Australia, the United States, and Europe identifies six major themes associated with information encountering in social media: wider publicizing, faster dissemination, personalized and filtered feed, up-to-date, documentation of knowledge and experiences, and retrievability (Panahi, Watson, & Partridge, 2016). All six themes relate to the improvement of health outcomes by sharing existing knowledge/information and creating new tacit knowledge (Panahi et al., 2016). In Denmark, physicians use social media for follow-up treatments and for searching for information about their patients (Andersen, Medaglia, & Henriksen, 2012). For example, when a physician looks up a patient's information on the patient's Facebook profile, the physician can gather evidence on whether the patient is adhering to the treatments or has a complex medical history that the patient cannot explain (Andersen et al., 2012). Such information gathering from social media should not be a privacy concern but seen as a means to have an open dialogue with the patient in order to gather knowledge and improve health outcomes, as the Chief Consultant at Danske Patienter (Danish patients) identifies (Andersen et al., 2012).

Even though there are similarities between physicians and patients' communications via social media in terms of learning and improving health outcomes, there are fundamental differences in motivations and methods. E-patient represents a fundamental change of the patient's role in managing

their health, which reflects more collaboration and proactivity in a less hierarchical health delivery (Prasad, 2013). For example, e-patients can retrieve and contribute information and viewpoints as opposed to simply receiving them (Prasad, 2013). Patients are also more probable to seek medical advice from peers or patients affected from similar diseases (Sharma & Kaur, 2017). For example, in 2011, a study examined 17 Facebook groups that focused on diabetes management (Sharma & Kaur, 2017). Approximately two-thirds of the wall-posts included sharing of diabetes or blood-sugar management strategies, 14% of posts enclosed requests for personal information from Facebook participants, and other posts were related to emotional support and feedback (Sharma & Kaur, 2017). Social media improves patients' health through supportive online sharing. Social medial enables anonymous and open dialogues, especially for patients with certain diseases that trigger taboos. For example, blogging enables patients with mental illness, who are among the most stigmatized, marginalized, and vulnerable members, to have a voice to share their experience in a field that lacks knowledge and support (Peek et al. 2015).

Elder adults, who are more vulnerable to illness and have more concerns about health conditions, benefit from social media because it typically has simple user interfaces and a vast amount of communication, support, and health information about certain lifestyle and health-related conditions (Dumbrell & Steele, 2014). In the case of Cystic Fibrosis (CF), many support seekers ask for support via social media regarding specific prescription medications and adherence behaviors, such as "what are some bad side effects of Orkambi" (Babyar, 2016). Another case happened in February 2011, when waiting for her husband's melanoma resection, breast cancer survivor and patient advocate blogger Jody Schoberg used Twitter to communicate with messaging and pictures, and received priceless support from her virtual community (Lober & Flowers, 2011). In this way, her expanded network helped the couple to cope with illness and improved relationships with their medical providers. However, accurately measuring the health impact from similar will be challenging (Lober & Flowers, 2011).

The different usages of social media between physicians and patients result in an interesting phenomenon: physicians use social media professionally to communicate/network with colleagues and trainees, share health information and own researches, discuss practice management challenges, research medical developments, consult colleagues regarding patient issues, and engage in health advocacy or market their practice (Sharma & Kaur, 2017). However, they do not communicate directly with patients. In this way, a gap of communication between physicians and patients is formed: physicians tend to use social media among themselves for educational purposes and only promote patients' health outcome from a distance, while patients tend to circulate information among themselves and improve health outcome through support-induced health behaviour changes.

Consider bridging communications between physicians and patients

Currently there is an inconsistency between physicians and patients' opinions on the reliabilities and qualities of social media content. A survey shows that of the total 485 practicing oncologists and primary care physicians in the U.S. in March 2011 (28.61% response rate), 57.5% perceived social media

to be a good way to get current and high-quality information (McGowan, Wasko, Vartabedian, Miller, Freiherr, & Abdolrasulnia, 2012). In terms of usefulness, 57.9% stated that social media enabled them to care for patients more effectively, and 60.0% stated it improved the quality of patient care that they delivered (McGowan et al., 2012). The patients, however, think otherwise. In a Pew study of 3001 adults in 2010, only 30% thought that the medical advice or health information that they found were helpful, while 69% answered as "no," "don't know," or "refused," and 3% thought that they had been harmed by following medical advice or information online (Prasad, 2013). There is indeed an overabundance of different types of health-related social media, including forums such as Google health groups, social sharing such as Flickr and YouTube, social networking groups such as PatientsLikeMe and OrganisedWisdom, podcasts such as those by the Cleveland Clinic, blogs online such as WebMD, and microblogs such as Livestrong (Prasad, 2013). Since physicians and patients use different social media channels for different purposes, different levels of information quality on different online platform could result in different ratings of social media contents.

Needs

Information quality on social media presents challenges to meaningful communication. Information quality is particularly crucial for patients because information found on social media directly impact a patient's health decision and behaviour in seeking health care (Jin, Yan, Li, & Li, 2016; Prasad, 2013). For example, there was a study that focused on users who tweeted pseudo- scientific vaccine claims (Dredze, Broniatowski, & Hilyard, 2016). By examining pseudo- scientific claims' tweets in 2015 for English language anti-vaccine mentions, researchers found that 86% of those users tweeted about vaccines; at least 19% of the users tweeted an anti-vaccine message (Dredze et al., 2016). While the public health and medical communities view these sources as lacking credibility, they have contributed to lower vaccination rates, which resulted in infectious disease outbreaks such as the 2014–2015 Disneyland measles outbreak, and widespread concerns about vaccine safety (Dredze et al., 2016). In this sense, the unreliability of social media information is one of the main concerns for patients that use social media for health communication (Antheunis et al, 2013).

Unreliable health information is dangerous because it may change patients' health behaviour and expose patients to unnecessary risks. Obtaining information on the latest treatment and technology from social media, which often prove to be lack of credibility or unproved by authorities, can result in patients' self-diagnosis and adverse events (MacDonald, 2016). As social media is widely used in today's society, any misleading or inaccurate information will impact a high percentage of users. Moreover, physicians are already using social media regularly. The same survey in the U.S. in 2011, as mentioned two paragraphs earlier, shows that among 485 practicing oncologists and primary care physicians,, 24.1% used social media frequently every day with the purpose of scanning or exploring medical information and 14.2% contributed new information via social media on a daily basis (McGowan et al., 2012). On a weekly basis, 61.0% of the 485 participating physicians scanned medical information and 46.0% contributed new information (McGowan et al., 2012). Therefore, considering the negative

effects of low-quality information on patients and physicians' frequent usage of social media, bridging the communication between physicians and patients is necessary and can be achieved.

Benefits

Bridging the communications between physicians and patients is the most effective way to improve information quality. Health organizations have realized the benefits of using social media to promote quality health information. For example, through search, 1229 hospitals could be found on one or more social networking sites in 2011, with over 4118 pages (Indes, Gates, Mitchell, & Muhs, 2012). Facebook was the most commonly used platform with 1068 pages, followed by Twitter with 814 accounts (Indes et al., 2012). Data also showed that 30%-50% of successful practices had a presence on one or more social networking sites, such as in the case of vascular surgeries (Indes et al., 2012). For example, the Miller Family Heart and Vascular Center at the Cleveland Clinic customizes patient-centered media approach by hosting their own Facebook page (www.facebook.com/clevelandclinic) (Indes et al., 2012). It allows patients, physicians, and hospital representatives to post messages on the wall in a continuously streaming nature (Indes et al., 2012). Links on the Facebook page can take patients to the hospital websites that enable patients to search for detailed information from A-Z with respect to only vascular diseases (Indes et al., 2012). A link to a Twitter account (www.twitter.com/ClevClinicHeart) allows representatives from their hospital to post tweets related to heart and vascular care (Indes et al., 2012). Other links, such as webchats (www.clevelandclinic.org/webchat), inform patients on various topics in vascular surgery or to videos that describe various milestones or procedures in vascular surgery; an active and evolving monthly blog, *The Beating Edge* (www.thebeatingedge.org), is designed to keep patients informed about cardiovascular and thoracic diseases and the institution's research, as well as enabling patients to post comments, stories, and feedback in an attached forum (Indes et al., 2012). These examples present the most direct communications that have been achieved between physicians and patients. Quality of information on social media can be improved through these instituted communications.

However, such instituted communication could not be as targeting and effective as direct communication between physicians and patients. There are several benefits of direct physician-patient communications. First, direct communications between physicians and patients via social media channels will help to build trust, increase transparency and accountabilities in diagnosis, and allow patients to access first-hand medical knowledge and data (Andersen et al., 2012). Quality of social media contents will further improve when information come directly from physicians. Second, social media can provide new forms of network-based interventions (Rice & Karnik, 2012). For example, victims of bullying or cyberbullying among children and adolescent patients can be detected at an early stage through social media activities, which enable physicians to provide clinical supports (Rice & Karnik, 2012). Third, targeting specific patient population will result in more effective influence on behaviours, especially young patients that can be the reasons for public health related disease, such as teenager sexually transmitted infections (Dunne, McIntosh, & Mallory, 2014).

Risks

Despite the benefits of promoting direct communications, there are many risks that prevent physicians and patients from communicating in a more direct and even personal manner. The openness and transparency that social media brings become the obstacles of further communication and engagement. Physicians concern about the accountability involved with what they say and present on social media. Patients concern about the potential privacy loss when communicating health information with others, including physicians (Antheunis et al., 2013).

Anything that physicians say or do on social media will likely be seen and recorded and may be used as evidence against them (Prasad, 2013). According to a general practitioner, physicians who ask for advice from peers in a public forum are considered to acknowledge their own shortcomings and are likely to be challenged (Andersen et al., 2012). Therefore, in such a professional culture, being exposed to an online environment and potentially being monitored and held accountable prevent physicians from directly communicating with patients (Andersen et al., 2012). Online presence is another concern for physicians (Pathiraja & Little, 2015). As borderless communications open previously unavailable connections, managing one's online presence, such as adhering to professional and ethical duties, is important as it can be associated with one's real-life reputation (Pathiraja & Little, 2015). In fact, residency programs in the U.S. have been surveyed about using social media to source background information on applicants (Pathiraja & Little, 2015).

Confidentiality and privacy are the biggest risks for both physicians and patients. Physicians cannot mention any patient identifiable information, as doctors have an ethical and legal duty to protect patient confidentiality (Pathiraja & Little, 2015). In reality, this is very hard, if not impossible, to achieve. For example, one study found that 40% of presentations posted online contain radiological images that include patients' identifiable information either overlaid on the image itself or embedded in the Digital Imaging and Communications in Medicine (DICOM) data (Pathiraja & Little, 2015). Such abridging confidentiality is not intentional but due to the complexity of health information. On the one hand, health information must be shared for medical supports and diagnosis. On the other hand, any bit of health information, such as symptoms and drugs, can be identifiable information. Since one piece of information can be both the key for a health condition and a potential identifier, it seems to be impossible to initiate physician and patient communications without recognizing the risk—confidentiality can be breached and sometimes it is necessary to do so. Patients also do not wish their social media presence to be monitored by physicians. Even though patients' views on privacy differ depending on factors such as education, ethnicity, personality, and relationship with their physicians, patients tend to control where and when they give information, what kind of information they give, and who will acquire and can use the information (DeJong, 2014).

All of these accountability as well as confidentiality and privacy concerns result in physicians' caution and patients' reluctance towards directly communicating on social media. Therefore, maintaining professional distance becomes necessary in order to maintain professional and ethical standards that protect both physicians and patients (Pathiraja & Little, 2015).

Recommendations for the next steps: Identify and fill the gaps of bridging communications

Re-examine benefits and risks

There are always trade-offs when adopting a new technology that changes the traditional relations and communications – which in this case is the use of social media. The trade-off is the benefits and risks when using social media to communicate. Unfortunately, there is no clear boundary between benefits and risks because they always come hand-in-hand. For example, the open dialogues that social media brings accompany the potential loss of privacy and anomaly. Currently, there are many attempts to minimize risks of social media in order to maximize benefits. However, the result is not the elimination of risks but the loss of benefits. In other words, the excessive attentions on the risks of accountability, confidentiality, and privacy result in both physicians' and patients' withdrawal from using social media to communicate with each other. For example, despite that 305 (70.1%) of the 435 urologists currently practicing in Australia and New Zealand have an easily identifiable social media account—LinkedIn (51.3%) is the most commonly used form followed by Twitter (33.3%) and private Facebook (30.1%) accounts—only 26% of urologists use social media frequently given that they avoid it for professional use (Davies, Murphy, van Rij, Woo, & Lawrentschuk, 2015). Therefore, a systematic, holistic, and impartial benefit-risk analysis on social media must be conducted first in order to weigh benefits and risks and better understand the trade-offs based on evidence.

Benefits always comes with risks. When physicians' and patients' attentions are fixed on the social media's effects on the changes, especially risks, to health service delivery in legislation, liability, scope of practice, access, confidentiality, privacy, safety, and time, benefits that social media brings are often not emphasized enough. Such benefits include efficient care delivery, affordability, accessibility, and user friendly characters. However, in front of the risks that social media brings, benefits is rhetoric and not demonstrated. Ongoing research must present evidence, such as cost-savings in the single-payer system in order to support evidence-based policy-making that encourages physicians and patients to communicate via social media (Knight, Werstine, Rasmussen-Pennington, Fitzsimmons, & Petrella, 2015). Partnerships with local health authorities, pilot studies on funding and billing options that compensate the time that physicians engage in social media and communicate with patients, will help demonstrate how theories can be applied into practice. Most importantly, future research needs to identify whether benefits can outweigh the potential risks, which will provide incentives for physicians to use social media to communicate with patients directly.

Uncertainties about social media and ongoing research

Currently, there are many uncertainties about social media. For example, in a review of 10 studies in the education category, researchers find that only one study in this domain suggested a positive impact from social media use (Patel, Chang, Greysen, & Chopra, 2015). Undefined (n=5) or neutral (n=2) impact were common, while 2 studies identified negative impact due to inaccurate information or biases (Patel et al., 2015). In 8 mixed-method studies, the overall impact of social media

on chronic diseases, such as type 2 diabetes management was rated as undefined (Patel et al., 2015). Medpedia used to be an open forum that enables both medical professionals and non-professionals at global level to discuss health and medicine using its three platforms—a collaborative encyclopedia, a network and directory for health professionals, and organizations and communities of interest (Prasad, 2013). The failure of Medpedia raises the questions of how to make credible health-related social media work. There are also concerns of social media's impacts on patients' health-seeking behaviours – patients may begin to rely on social media as a substitute for immediate communication with physicians, may skip office visits and phone calls, or could potentially delay diagnoses or treatments (Indes et al., 2012). To what extent patients triage themselves with physicians' social media posts is also in question (Howell, 2011). In order to minimize uncertainly, studies on how social media works in physician-patient communications need to be holistic and in depth with a focus on how behaviour can be changed, especially with regards to the mechanism/process of behaviour changes when using social media to enable communication.

In order to fill the current gaps around the uncertainties about social media, theoretical models on how to effectively utilize social media and improve performance outcomes are in development. For example, Figure 1 is a conceptual model of physicians' utilization of social media for patient interactions aims to moderate performance outcomes using the fit between social media, interactions, and social requirements (Dantu, Wang, & Mahapatra, 2014). The outcomes of physicians' interactions with patients include improved care delivery with higher care quality and/or lower cost of care, patient satisfaction, compliance with treatment plans, trust, and overall quality of life (Dantu et al., 2014).
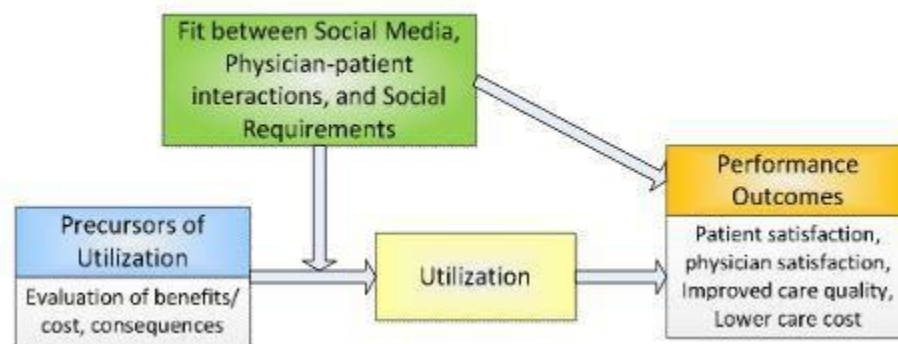

Figure 1. Conceptual model of Fit and performance of Physician-patient's use of Social Media (Dantu et al., 2014).

Such models provide frameworks for further research. However, quantitative studies on physicians' and patients' behaviour changes when using social media must supplement theories. For example, a 3-arm randomized controlled trial under the Australian New Zealand Clinical Trials Register (ANZCTR), ACTRN12614000536662 aims to evaluate the use of social media as a health promotion tool on dietary and physical activity changes for overweight and obese individuals (Jane, Foster, Hagger, & Pal, 2015). The trial aims to recruit 120 participants from the Perth community,who will be randomly assigned to one of the following three groups: the Facebook group, the pamphlet group, or a control

group—the Facebook Group will receive the weight management program delivered via a closed group on Facebook, the Pamphlet Group will be given the same weight management program presented in a booklet, and the Control Group will follow the Australian Dietary Guidelines and the National Physical Activity Guidelines for Adults as usual care (Jane et al., 2015). Changes in weight, body composition, and waist circumference will be initial indicators of adherence to the program (Jane et al., 2015). Secondary outcome measures will be blood glucose, insulin, blood pressure, arterial stiffness, physical activity, eating behaviour, mental well-being (stress, anxiety, and depression), social support, self-control, self-efficacy, Facebook activity, and program evaluation (Jane et al., 2015). It is expected that this trial will support the use of social media - a source of social support and information sharing - as a delivery method for weight management programs, enhancing the reduction in weight expected from dietary and physical activity changes (Jane et al., 2015). Such studies are crucial to better understand social media induced behaviour changes and health outcomes, since evidence on health outcomes will prove to be highly valuable for physicians, patients, and other stakeholders to review the usefulness of social media. Therefore, more quantitative research with quality methodologies on the mechanism/processes of patients health behaviour changes need to be developed. This requires a relocation of research funding to support more interdisciplinary researches across clinical psychology, behavioural science, and social media related information studies.

Health policy and guidelines

Patient privacy and confidentiality could become a legal issue with certain online communications (Indes et al., 2012). Health care providers have a legal obligation to safeguard and protect patient information from disclosure to third parties without authorization, which is referred as covered entities under the Health Insurance Portability and Accountability Act (HIPAA) (Indes et al., 2012). One of the first cases involving disciplinary actions concerning the use of social media happened in April 2011, when the obligation was applied against a physician from Rhode Island after she posted specific medical information online about one of her patients; this ultimately resulted in the termination of her medical license (Indes et al., 2012). In this case, although the patient's name and other personal identifiers were not included, the judge ruled that it would be possible for the patient's small community to discover the patient's identity due to the specific medical information listed (Indes et al., 2012). This case shows that the courts had low/zero tolerance for violations of the obligation, which has resulted in the emergence of strict policies in many institutions that prohibit physicians from using the internet, especially social media to communicate about or with patients in order to avoid potential violations (Indes et al., 2012). However, a 2010 survey of state medical boards in the U.S. indicated that 92% of violations, ranged from inappropriate contact with patients to misrepresentations of credentials or clinical outcomes, were reported in their jurisdiction (Indes et al., 2012). This shows that strict legislation or policies cannot eliminate violations and potential privacy or confidentiality loss because of the complex, unstandardized, and subjective nature of privacy and confidentiality. For example, one patient's identifier can be unique, such as a rare disease, but not enough to identify the patient because

this patient keeps his/her own disease as a private matter. Another patient may have a common disease but it is an obvious identifier because the patient's condition is well known in the small community. These considerations are beyond physicians' knowledge and control. In this sense, anything can become identifiers and can cause privacy and confidentiality loss.

The Canadian Medical Association has begun the process of developing social media practice guidelines for physicians in Canada (Knight et al., 2015). This is a good opportunity to review the current guidelines and policies in other countries and develop a framework that fits into the Canadian health care. Moreover, such guidelines should be for both physicians and for patients. In a time that patients are free to reveal any health information on social media, making physicians the sole safeguard of patients' privacy and confidentiality is neither achievable nor creating incentive for physicians to communicate with patients via social media channels. Instead of creating policies that punish physicians more severely, best practice guidelines should aim at helping physicians use social media in an ethical, effective, and appropriate manner, apply common sense to specific situations, and continuously enhance professional integrity (Knight et al., 2015). In other words, communication on social media should mimic that in real clinic settings, including maintaining patient privacy, confidentiality, and best practices for professional conduct (Knight et al., 2015).

In this sense, even though communication between physicians and patients expands to the social media platform, the traditional regulations and guidelines are still applicable. There is no need for more strict policies only because communication on social media is a new and relatively less-known subject to the health care industry. At the same time, ongoing evaluation and risk management must be applied in order to detect any inappropriate conduct and intervene for better practices that benefit both physicians and patients. Physician education on social media is also necessary. Examining attitudes, self-reported behaviors, and intended actions, a study of first-year medical students' use of social media after an educational intervention shows that attending a required session in a professionalism course led to thoughtful reflection, increased professional role awareness, and intention to edit and monitor future online presence (Lie, Trial, Schaff, Wallace, & Elliott, 2013). After four months, students reported that they continued monitoring and editing of their online presence (Lie et al., 2013). Therefore, guidelines, interventions, and education, instead of severe punishment, can better promote the direct communications and help physicians to adopt into the social media environment.

Conclusion

The wide use of social media and the convenient platform for communications provide opportunities for physicians and patients to directly communicate with each other. Such communications contribute to the quality of health information available on social media and also improves health outcomes. However, a holistic understanding of benefits, risks, and gaps is required in order to better measure to what extent physicians and patients can directly communicate with each other via social media. Otherwise, unclear recognitions of the trade-offs between benefits and risks, uncertainty about social media, and over-strict legislation and policy only result in physicians' and

patients', especially physicians' decisions on not using social media at all for direct communication purposes as a measure of self-protection. Therefore, ongoing studies on benefit-risk analysis, social media's impact on health behaviour changes, and policy and guideline-making that focus on guiding rather than punishing physicians will be valuable in terms of encouraging both physicians and patients to directly communicate.

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