Toronto Community Health Centres: Environmental Perspectives

By Kaila Wong

Supervised by Professor Sarah Flicker

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Abstract

Although environmental health and justice concerns have long since been recognized as determinant of human health, environmental health is not frequently viewed as a primary health concern within healthcare centres. This exploratory paper examines how Community Health Centres (CHCs) in Toronto are integrating environmental health and/or justice perspectives into their health promotion initiatives, whether they have changed over the years, and why. Two case studies, the South Riverdale Community Health Centre and the Davenport-Perth Neighbourhood Community Health Centre, were examined through review of academic literature, existing public documentation, and interviews as a means to provide a sample of CHCs. Analysis yielded the discovery that though environmental health perspectives are still being integrated into health promotion methods and strategies, many uncontrollable factors such as funding, community interest, and pre-existing social concerns influence whether environmental health programming can be delivered. Rather, it was determined that the majority of current environmental health perspectives are mainly integrated into other forms of health promotion, such as physical or mental health. General recommendations are made at the end of the paper addressed to the two case studies, all CHCs, and the healthcare system, for improving overall health outcomes of communities through CHCs utilization.

Foreword

This research paper focuses on two key areas: health, and environmental health and justice. Together, these areas create the two main components identified in my Area of Concentration of my Masters of Environmental Studies (MES). As such, this research served an amalgamation that met all my MES Plan of Study's learning objectives, including learning about formal procedures and perspectives of the environment as they relate to environmental justice, health theories reflecting the strengths and weaknesses of the healthcare system, and how social determinants of health affect communities in different ways.

Framed in the spatial confines of community settings through Community Health Centres (CHCs) as a means to sample environmental justice and health initiatives in existence, this research provided me the opportunity to apply all the academic knowledge I have previously learned about environmental justice and health into a real-world setting. This enabled me to examine the differences between academic theory and praxis of both environmental justice frameworks and health frameworks. In comparing the differences, I was able to further learn about the realistic challenges and limitations that can hinder environmental justice efforts or health promotion, in addition to learning about current strategies employed to help improve the health outcomes of vulnerable populations in Toronto. This research has deepened my knowledge and understanding of how theoretical concepts of environmental justice and health contrast with how they operate in the practical world.

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1. Introduction

1.1: Health

Health, as defined by the World Health Organization, is "the state of complete physical, mental and social well-being and not merely the absence of disease" (2019, para. 1). However, the concept of heath itself varies by person, making it difficult to fully understand, define, and address on an absolute scale. This is especially true given the different health burdens people experience in diverse living conditions, thereby influencing individually perceived standards of health. Though the public healthcare systems prioritize reducing overall burden of disease and injury, many health interventions often fall short of their goals due to population needs changing faster than financial structures, intervention designs, or evaluation methods do (Homer and Hirst, 2006, p. 452). It is also essential to note how the vast majority of public health interventions are targeted towards changing behaviours of individuals (Israel et al., 1994, p. 150). Behaviour change interventions commonly act to empower individuals to make better life choices, such as incorporating more exercise or healthier diets. However, behavioural changes themselves are constricted by an individual's economical, social, and cultural circumstances (Stokol, 1996, p. 284). As a result, many "upstream" social and environmental problems are neglected. These upstream problems, such as inadequate housing, high rates of pollution, or marginalization, often impact more than one aspect of health, thereby playing a crucial role in determining one's overall health outcome.

Despite the healthcare system's goal to restore health to a government-defined baseline, various social factors outside of an individual's control often impact their abilities to maintain health or seek proper healthcare. This can include a large scale of

factors, ranging from religion, income, gender, residential location and geography, race, occupation, sexuality, class, and many others (World Health Organization, 2019, para. 4). Differences in these factors, more commonly known as social determinants of health, create health inequities amongst populations. Such health inequities can result in chronic and accumulative effects on the overall health outcomes of individuals and their communities (Sexton and Hattis, 2007, p. 826). As Marmot et al. (2013) write, closing the health inequity gaps includes addressing the social determinants of health by applying a blanket improvement to daily living conditions, providing fairer distribution of social goods, and finding more accurate ways to evaluate both health problems and the results of interventions (p. 1662-1668).

1.2: Community Health

The concept of health transcends the individual as it moves into the realm of the public. On a more localized scale, this is known as community health. As academic thought and literature have evolved over the years, so has the concept and definition of community health. Goodman et al. (2014) provide an extensive critique on earlier definitions of community health, where communities were framed as singular, isolated entities with consistencies on all fronts (p. 3). They argue that each community is inherently more complex, and that the definition of "community health" needs to encompass the diversity of perspectives and experiences with concepts of "community," "health," "interventions," and "science of community health" (p. 4). This follows the developing emphasis on the importance of social determinants of health, where key social factors have been identified to have direct impacts on community health including living

conditions, civic engagement, and overall opportunities for learning, community development, employment, and healthcare access (Anderson et al., 2003, p. 13).

Community health is closely linked to the behaviours of its community members. A persistent thought is that by focusing on improving individual behaviour, community health will collectively follow and improve. Though there are recognized benefits of pursuing individually-directed changes, Israel et al. (1994) critiqued this as ignoring the dominating role social, structural, and physical factors play (p. 150). Stokols (1992) similarly recognized this problem, explaining that by focusing on individual behaviour changes, health promotion strategies failed to recognize underlying environmental causes (p. 6-7); to this extent, he argues for more environmentally-focused interventions (p. 7). Stokols later (1996) proposes changes to the health promotion system to focus more on lifestyle modification, injury control and environmental enhancement, as well as theoretical perspectives on collective behaviour change, environmental enhancement, and social ecology models to help supplement this shift (p. 283). These changes in perspective offer a way for communities to improve health collectively, and to provide more equitable access to health-promotive environments.

Community empowerment can act as a catalyst towards improved community development and overall community health, especially as it relates to the environment. The residents of communities themselves are most familiar with how their community operates. Purdom (1964, p. 139) and Wu et al. (2017, p. 28-29) have noted conflicting opinions in environmental health priorities both between the community and professionals, and within the community itself. Empowering community residents to come together to discuss problems and then communicate their opinions to other

community development groups is essential for working together to build healthier communities. It is hypothesized that with increased community empowerment, collaborative community planning, action, change, capacity and outcomes will be able to grow steadily (Fawcett et al., 1995, p. 681-683), thus enabling positive growth in overall community health.

Merzel and D'Afflitti's (2003, p. 557) study revealed that, with the exception of HIV prevention, many community-based approaches to health promotion and disease prevention in the past 20 years have been mediocre at best. However, the literature surrounding community-based approaches has been changing since then; active engagement and planning with the community has begun to take a higher priority in order to both advance and maintain community health (Goodman et al., 2014, p. 5-6). The addition of active lifestyles, as a means of promoting health, has also had large impacts on promoting positive and healthy communities, for it encourages individuals to be more physically active (Aytur et al., 2016, p. 90). However, though the promotion of active living has positive effects, active living remains to be a form of individual-based behaviour change, which can only help improve health outcomes to a limited extent.

1.3: Environmental Health and Justice

Environmental justice is defined by the United States Environment Protection Agency as "the fair treatment and meaningful involvement of all people regardless of race, colour, nation origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (2019, para. 1). However, it is also widely known as a movement aiming to alleviate communities from distribution injustices, specifically those relating to environmental harms. As both Čapek

(1993, p. 20-21) along with Bullard and Johnson (2000, p. 559-560) explain, environmental justice heavily emphasizes the relationship between local communities and larger national bodies of capitalistic power and nature. Taking an environmental justice perspective on community health thus provides a thorough examination of not only the physical health of individuals, but also the external social factors that impact health. Arcury et al. (2002, p. 233) describe how socially perceived risk and perceived control in occupational work environments have an impact on an individual's health. Both the works of Taylor et al. (2007, p. 53-54) and Floyd and Johnson (2002, p. 67-69) similarly note how environmental justice perspectives are also concerned with access to positive recreational sites, specifically the impacts on health for low-income and ethical minority groups. Employing an environmental justice perspective on community health thus shifts the focus from health concerns for the individual to the community.

Since Stokols' writing (1992), many of his underlying environmental causes can be redefined as social determinants of health (p 6-7). Social environmental factors, such as income, gender, sexuality, or class, often intersect with other physical forms of environmental causes, such as residential location geography, proximity to health hazards, or existing levels of pollution in the area. Smith and McDougal (2017, p. viii-xii) define the cost of environmental hazards (such as pollution) as the loss of health or wellbeing due to exposure, the loss of income due to time off sick or purchasing medication, and the loss of wealth due to properties and goods being surrounded or contaminated by the environmental hazard. Accumulated, these can have major acute or chronic impacts on one's overall physical and mental health, and depending on the environmental harm's range, on both individual and community levels.

Numerous environmentally-caused diseases or illnesses have been shown to impact communities in different ways. These harmful factors can range from the immediate environment and setting, such as building dampness and mould (Norbäack et al., 2016, p. 922), to other less obvious and indirect factors, such as noise and pollution from a nearby airport (Cohen et al., 2008, p. 199). However, these health disparities have been shown to impact minority communities the most, impacting both their access to and outcome of health treatments (Probst et al., 2004, p. 1695). The differences in environmental health priorities within communities speak to the different social priorities these community members have; for communities facing more imminent matters such as low income or access to healthcare, concerns over environmental health impacts take a backseat. As a result, there is a discrepancy between the strategies of providing healthcare treatment verses providing prevention against causes of health maladies. A European study in 2016 (Norbäack et al., p. 922) revealed links between low socio-economic status and building dampness and mould, thereby increasing the chance of health implications caused by asthma or allergies. Within the specific context of Toronto, poor air quality has similarly resulted in persistent hospitalization and premature deaths. Though death and illness rates linked to air pollution in Toronto have dropped since 2004 (1700 premature deaths and 6000 hospitalizations per year), they still remain a persistent issue with an anticipated annual 1300 premature deaths and 3550 hospitalizations (Toronto Public Health, 2014, p. i).

As a negative result of overwhelming poor social determinants of health and living environments, some communities have become marginalized. However, not all communities succumb to poor health standards; various marginalized communities have

come together to help put into place a plan to mitigate the level of health deterioration they may face. Studies by Subica et al. (2016, p. 79-80) and Fernandez (2018, p. 921) depict strategies used by marginalized communities of colour to improve their health outcomes. Both explain the effectiveness of community planning and engagement as a means to improve health outcomes, and reveal the resistance many communities have against poor health conditions. On a similar note, cultural health, environmental health, and physical health are inter-related; a recent study examined the Association of Environmental Health Academic Program's (AEHAP) mission to support environmental health through promotion of a culturally competent workforce, which thereby provides a positive cascade of impacts on overall health (Pinion Jr. et al, 2018, p. 36-38).

1.4: Community Health Centres

Community Health Centres (CHCs) play a fundamental role in ensuring community health. All CHCs across Canada are a part of the Canadian Association of Community Health Centres (CACHC). As defined by CACHC, CHCs across Canada all must encompass five main attributes: provide team-based and inter-professional care, integrate diverse health and social services, be oriented towards community-based care, work to address social determinants of health, and be committed towards providing health equity and justice (Canadian Association of Community Health Centres, n.d., para. 1-5). As Cook et al. (2007, p. 1459-1460) write, these centres were developed in recognition of both the deficiencies and disparities in healthcare quality. These problems often occurred in geographical areas with more homogeneous race or socioeconomical circumstances. As a result, CHCs are able to act as safety nets specifically tailored to the health concerns within a select community. Another advantage to CHCs is their

flexibility and ability to respond to the findings of community-based research. Such research often helps to highlight the barriers and challenges community members face in accessing healthcare, which thus provides CHCs a way to recognize areas for improvement. This ultimately bridges the scientific realm of health to the practical realm of administrating health through both community engagement and social action, thereby increasing health equality within the community (Wallerstein and Duran, 2009, p. 40).

CHCs across Ontario are governed by three main bodies: the Ontario Ministry of Health and Long-Term Care, Local Health Integration Networks (LHINs), and the Association of Ontario Health Centres, renamed the Alliance for Healthier Communities in 2018. Each plays an important part in the overall direction and operation of the CHCs. The Ministry of Health and Long-Term Care provides strategic direction and leadership, in addition to developing supporting legislations and policies (Office of the Auditor General of Canada, 2017, p. 188). LHINs, comprised of 14 regional LHINs across Ontario, work to determine and support the health service priorities within each region. Though the Provincial government has since announced their decision to abolish LHINs in the upcoming future (Crawley, 2019, para. 3), LHINs currently remain responsible for planning, integrating, and funding local health services, including CHCs. They also possess legal authority to fund and manage aspects of primary care in Ontario, including the care offered at CHCs. As a result, CHCs hold annual accountability agreements with LHINs, outlining the terms and conditions they are expected to comply with during the delivery of health services (Office of the Auditor General of Canada, 2017, p. 188-189). Lastly, the Alliance for Healthier Communities (originally named the Association of Ontario Health Centres) represents community-governed primary health care centres in

Ontario. As of 2017, 74 of the 75 Ontario CHCs were members of the Alliance, following the Alliance's models and missions of providing equitable health service. The Alliance specifically supports CHCs through direct policy and stakeholder relations, in addition to information management, research, and evaluations (Office of the Auditor General of Canada, 2017, p. 189).

The Alliance provides much guidance in regards to what models of health and overall mandates CHCs across Ontario are to follow. Specifically, each CHC's own mission, visions, and values align broadly with those of the Alliances, but are tailored to their own community's needs (Alliance for Healthier Communities, n.d., para. 4). This includes following in the footsteps of the Alliance's overarching values of health equity, leadership, collaboration and knowledge, in addition to incorporating their models of health and wellbeing and/or wholistic health and wellbeing. Figure 1 demonstrates the existing models of health the Alliance currently implores CHCs to use. The Alliance's strategic directions include those of: challenging inequities, promoting people-centred health, demonstrating positive health outcomes, and advocating for proper policies to enable members to provide the best health services possible. This thus provides the backbone of each CHC's own unique set of missions, visions, goals, and core values.

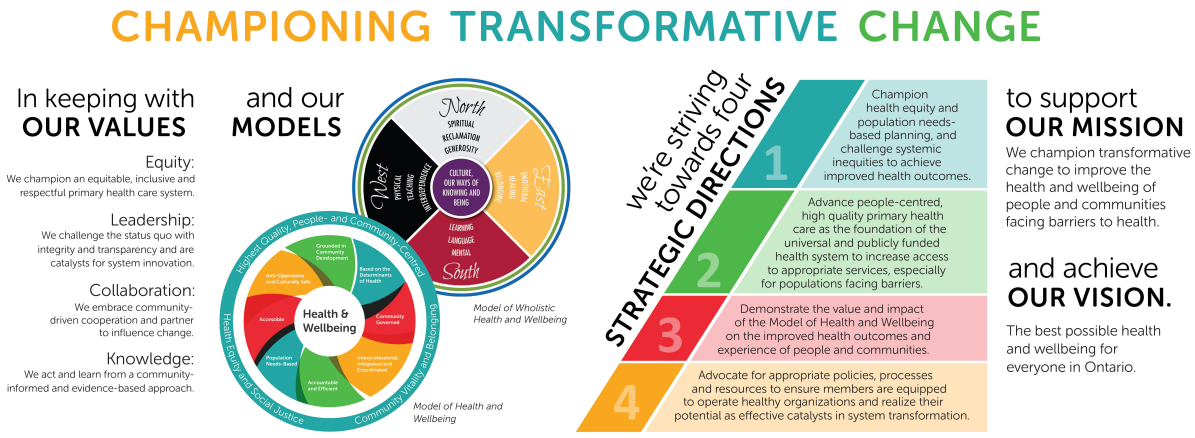

Figure 1: Values, Health Models, and Strategic Plan of the Alliance of Healthier Communities

Funding plays an integral role in the overall operation of all CHCs, accounting for anything from staffing to program deliveries. On a singular scale, CHCs are normally granted the most funding from LHINs, who are in turn funded by the Ontario Ministry of Health and Long-Term Care. With LHINs acting as an intermediate, CHCs are thus indirectly funded by the Ministry of Health and Long-Term Care. The Ministry of Health and Long-Term Care provides further additional capital funding directly to CHCs. However, CHCs are not restricted to only receiving funding from the Ministry; rather, they are able to receive funding from other sources, including but not limited to charities, foundations, other ministries, and different levels of government. In the fiscal year of 2016/2017, the Ontario Ministry of Health and Long-Term Care provided $401 million to CHCs indirectly through the intermediate LHINs. It is notable that the $401 million is an increase of 114% from ten years ago, when only $187 million was provided to CHCs through LHINs during the fiscal year of 2007/2008. This amount was supplemented by an additional contribution from the Ministry, providing $16 million of capital funds directly towards CHCs. It was further determined that CHCs across Ontario obtained a combined total of $98 million from other non-Ministry sources (Office of the Auditor General of Canada, 2017, p. 189). However, given the announced abolishment of LHINs by the Provincial government, funding breakdowns for CHCs in the future remain uncertain (Crawley, 2019, para. 3).

Though CHCs provide an excellent means to examine the overall health of a community, they are not without challenges. In 2017, the Office of the Auditor General of Ontario assessed the operations of Community Health Centres, revealing concerns and challenges for CHCs across Ontario. One of the main concerns depicted in the audit

report was the overall inconsistency of CHC utilization across Ontario; on one end, it was found 16% of CHCs were responsible for more patients than their capacity enabled them to properly serve. In contrast, it was found that about 50% of CHCs were serving less than 80% of their target number of patients, leading to an excess of resources. This is also reflected in the inconsistent number of primary care patients amongst CHCs, where some saw as few as 16 patients and others saw up to 60 patients each week (Office of the Auditor General of Ontario, 2017, p. 181-182).

Parallel to the problems of utilization is the differing amounts of funding provided to each CHCs by LHINs. The 2017 Audit revealed that each CHC's annual funding is determined by historical funding level. Though annual base funding towards CHCs have been increasing in the past few years, the increases have been strictly related to a blanket retention and recruitment of health professionals working at the CHCs. The 2017 Audit report further found that the amount distributed to CHCs thus did not accurately correspond to each CHC's individual level of client need or activity, regardless of whether a CHC was serving at over or under capacity (Office of the Auditor General of Ontario, 2017, p. 215). This illustrates an uneven funding distribution system, where those who urgently need additional resources fail to receive them.

From the 2017 Audit, there is no overarching set number of minimum professionals or inter-professional teams that are required to be present at each CHC and available for clients to access. This was determined to be a result of having no set guidance in regards to what minimum number of professional staff or interdisciplinary services should be present at each CHC; rather, only a set of recommendations existed, recommending that CHCs have a "full basket of services." As a result, CHCs had an

inconsistent amount and type of health care providers in employment across Ontario; this led to an uneven access to types of health services offered at each CHCs. In addition, more than 50% of CHCs were also found to not have a physiotherapist, with some lacking social workers or dieticians all together (Office of the Auditor General of Ontario, 2017, p. 200-204).

2. Methodology

2.1: Review of Public Documentations for Overall CHCs

The design and analysis of this study follows Yin's guide for case study research, as outlined in his book *Case Study Research: Design and Methods* (2003). Methods include conducting a review of academic literature and public documentation (p. 85-89), followed by interviews (p. 89-92) with representatives of each case study's CHC, analysis of transcripts (p. 92), and comparative observations aligned to the existing literature and documentation (p. 111-112).

An in-depth review for the current state of all CHCs in Ontario was first conducted. This review included the gathering of documents pertaining to governance of all CHCs in Ontario and Canada. Documents examined included reports from the Ontario Alliance of Healthier Communities, the Canadian Association of Community Health Centres, the provincial and federal government, the auditor general's office, partner organizations, and academic studies. These reports included annual reports, funding reports, audit reports, performance overviews, strategic directions, recommendations, and operation reports. The purpose of this review was to gain a comprehensive understanding of the overarching logistics behind CHCs in Ontario. This information, by extension, is

applicable to all CHCs in Toronto, thereby acting as an additional source of data analysis alongside case studies findings. The amalgamation of these documents provided a thorough understanding of what work has been accomplished so far, what fallbacks have occurred, and what plans for improvement may be used going forward.

2.2: Selection Process

Following the compilation of documents, a list of CHCs in Toronto was drafted as possible case studies. CHCs on this list were selected based off of their history (or perceived lack of) environmental justice/health work. The goal was to compare a CHC with a strong history of environmental engagement with others exemplifying little to no environmental health activism. This allowed a spectrum of environmental concern within CHCs in Toronto to be established for further analysis.

Invitations to participate were sent out to five CHCs, addressed to workers who possess both expertise and knowledge over their Centre's health programs and initiatives (such as Program Coordinators, Environmental Officers, or Health Promoters). The two CHCs and their workers that responded and agreed to participate were then used as primary case studies to complete the research. These cases studies were used to examine the type of environmental health promotion work being done in Toronto CHCs.

The two responses that were received were from workers representing the South Riverdale Community Health Centre (SRCHC) and the Davenport-Perth Neighbourhood Community Health Centre (DPNCHC). SRCHC, famous for their work around remediating soil contamination in the late 90s, thus acted as the case study with a strong history in environmental concern; DPNCHC represented the case study with little to no prior environmental health work.

Upon receiving confirmation of CHCs to be used as case studies, additional public documents were gathered pertaining to each CHC. These included various media forms such as newspaper articles, documentaries or videos, or statements from different individuals or organizations. This information was assembled in order to provide a more in-depth background of each CHC case study.

Brief (45-60 minute) interviews were conducted with the Community Development and Health Promoter at DPNCHC and the Environmental Health Promoter of SRCHC. The purpose of the interviews was to gain further insight on past, current and future environmental health perspectives or initiatives at each CHC.

2.3: Limiting Factors

Limiting factors played a large hand in restricting the amount of data collected. Though there are numerous CHCs in Toronto, the majority did not have any specific current or past environmental health programs or initiatives. This placed restrictions as to which CHCs could be reached out to; CHCs were not inclined to discuss programs that do not exist. Though a total of five CHCs were reached out to, responses were only received from two CHCs, both of whom agreed to participate. Other Community Health Centres were unresponsive, despite follow-ups. This ultimately limited the number of CHCs available to be used as part of the research's case studies, and for analysis. An invitation to the Alliance of Healthier Communities was also extended, with hopes to gain further insight about the overall operations behind all Ontario CHCs. However, similar to the majority of invitations, no response was received.

2.4: Analyzing and Construction of Paper

Following the collection and transcription of interview data from the two case studies, their findings were compared to search for any common trends or factors. Combined with the review of previous data collected from public reports or other documentation, this information was used to build a narrative to explain the results discovered by each case study. This method follows Yin's (2003) explanation building analysis technique (p. 120-122), which employs a thorough analysis of the different factors and casual links in order to explain each case and their findings.

From each case study's explanation, a comparison to academic literature was conducted in accordance to Yin's analysis strategy of analyzing gathered data to theoretical propositions (2003, p. 111-112). The purpose is to bring the findings back into the academic conversation by determining what is new, different, or surprising from the findings in comparison to the original academic literature. This then allows for larger and broader questions to be asked, which are addressed at the end of the paper.

The final version of the paper will be provided to the Community Health Center participants to provide documentation and support for continuing environmental human health initiatives.

3. Results and Findings

3.1: Case Study 1—South Riverdale Community Health Centre

3.1.1: History

The South Riverdale Community Health Centre (SRCHC) features one of the most extensive environmental programs in Toronto. Built off a history of environmental

justice, the SRCHC has recognized environmental health in their core values and an important factor contributing towards the community's overall health. This aspect of health remains in their mandate to this day.

In the 1970s, the South Riverdale community was home to many industrial sites. P. Young, SRCHC's lead environmental health promoter, explained that these were referred to as "noxious industries" by the community, and included lead smelters, oil refineries and storages, tanneries, waste storage and management sites, and others (personal communication, March 14, 2019). Many of the products these noxious industries handled arrived to and from the community through a rail system located nearby, making the area an ideal place for industry production. However, the accumulated pollution produced from all the existing noxious industries created a consistently heavy and detrimental source of pollution in the community area. The sheer amount of pollution led to significant decreases in air and soil quality, thereby acting as a detrimental determinant to the community's overall physical health.

3.1.2: Success

SRCHC, as a neutral and local group, played a large role in supporting the community's resistance against the noxious industries and their harms. In particular, as covered by the Canadian Broadcasting Corporation (CBC), the community was concerned with lead emissions from the metal company Canada Metal Co., situated in the community. High amounts of lead were released to the air and soil, resulting in lead dust buildup in homes and heavy contamination of soil. As CBC explained in a news cover, this posed particular health concerns to the residents of the South Riverdale community,

especially for families with young and developing children (as cited in XXSystm, 2011, 1:10).

With community exposure to such environmental harms, SRCHC worked with the City of Toronto to hold the largest national screening of lead in blood levels, testing community members both children and adult alike (South Riverdale Community Health Centre, n.d.). SRCHC further aided in helping organize and facilitate meetings between the community members and other interest groups. Through countless meetings with the industries, the Ministry of the Environment, industry regulators, and other interested parties or stakeholders, strategies and methods were agreed and acted upon to reduce pollution levels and improve the community's health (P. Young, personal communication, March 14, 2019).

As part of local redevelopment projects, the SRCHC helped call professional air and soil quality experts into the community to help monitor and measure the levels of pollution until they were within safe ranges (P. Young, personal communication, March 14, 2019). Soil quality samples were similarly analyzed for lead and reported back to SRCHC, who could then in turn relay information to community members. Contaminated soil was replaced by the Ministry of Environment for a depth up to 30 centimeters in 970 homes, and with professional housecleaning for lead removal in 717 homes (Langlois et al., 1996, p. 59). Additional changes to transportation methods also played an inadvertent, yet additional, role in changing land usage. P. Young also explained how as the City of Toronto began developing more roads and highways rather than railways, relocating industries to other areas closer to highways or with cheaper labour acted as a financial incentive for industries to leave the South Riverdale community (P. Young, personal

communication, March 14, 2019). By gaining physically better buffers to protect the community and better legal controls on the industries and their emissions, the South Riverdale community ultimately was successful in their mission to reduce and mitigate source points of pollution.

3.1.3: Shifts

Since the successful removal of contaminated soil and the decrease in air lead pollution, the community itself has undergone numerous changes. P. Young explained how the most noticeable change has been the physical environment (personal communication, March 14, 2019). The shutting down or relocation of surrounding noxious industries has not only changed the immediate physical environment, but also the living environment. Housing that used to be for factory workers have since been bought out and transformed into high-end housing. This has resulted in changes of not only the community members, but also in community priorities as newer, post-noxious industry populations move in. In correspondence, SRCHC has been shifting their focus away from strictly environmental problems to adapt to the new issues arising with the tides of gentrification.

Within the frame of environmental health and justice, P. Young further described how concerns over air pollution have shifted away from industry pollution and towards heavy traffic emissions. This has spurred an interest in promoting active transportation as a means to reduce air pollution caused by vehicles. Since then, SRCHC has worked with the community to support a biking initiative, including getting a bike lane along Dundas Street and opening numerous Bike Repair Shops (personal communication, March 14, 2019).

Shifts within SRCHC internally have similarly been made. Though environmental health is still recognized as an important determinant in overall community health, mission values and strategic direction set by the Board have evolved over time in correspondence to the changing community priorities. P. Young mentioned these changes include addressing new emerging problems, such as harm reduction and social isolation. SRCHC now has a main focus on identifying and targeting priority populations for health promotion initiatives in order to reduce the social inequity imposed on them (personal communication, March 14, 2019).

3.1.4: Current Operations

New goals of addressing social inequity within the community have made for a new population approach by the SRCHC. This population approach, P. Young described, is comprised of targeting high priority groups or individuals, who face unequal social barriers in accessing health care. These include programs for harm reduction, diabetes, homelessness, and others. With social environments and landscapes changing just as fast as the physical, the SRCHC is working towards having well-rounded programming that addresses health concerns for all, but also the needs for the ones that need it the most (personal communication, March 14, 2019). This has resulted in different programs and strategies towards addressing these community problems.

Environmental health programs still exist within SRCHC. Though not as high of a priority as explained by P. Young, the SRCHC is still dedicated towards maintaining a healthy environment for the community to reside in. Previous environmental programs have consisted of improving air quality within schools through carpet and mould removal; however, these programs have unfortunately been abolished. Though lack of

staff capacity and funding were key determinants in it's stop, other environmental health programs such as biking or gardening continue to be a main source of encouraging environmental health and awareness for the community. These two programs serve dual purposes apart from their strictly environmental roles: the biking program and the numerous repair shops acts as a means to foster community development and relationships, while the gardening program acts as a means to improve mental health, food security, and reduce social isolation (personal communication, March 14, 2019). Though environmental justice perspectives are still used and maintained in programs designed specifically for working towards healthier environments, the shifts in community have led for less distinguished programs dedicated strictly towards environmental justice itself.

Based off SRCHC's history of aiding the community's mobilization and resistance of environmental injustices, SRCHC retains the knowledge and importance of integrating environmental health perspectives into overall health promotion. SRCHC also continues to maintain the knowledge, strategies, action plans, and relationships with other stakeholders should another environmental issue occur. This provides SRCHC an established foundation of environmental concern, providing confidence to community members in the CHC's ability to respond to future environmental problems. As a result, the SRCHC acts as a positive exemplar of CHCs promoting environmental health in community settings.

3.1.5: Challenges

P. Young identified the biggest challenge he feels SRCHC has to overcome is the drifting relationship between the CHC and the community. P. Young recommended more

community engagement, specifically suggesting more routine check-ins to help determine community priorities. Brainstorming sessions were also suggested as another proactive means for community engagement, allowing community members to visualize what kind of community they would like, and how they, with the SRCHC's aid, would be able to help turn that vision into a reality (personal communication, March 14, 2019).

Similar to lower levels of community engagement, another identified challenge included the lack of social connectedness between the SRCHC and its community members. The notion of social connectedness stems from the growing concern over social isolation (personal communication, March 14, 2019). Either through physical isolation or a lack of social interaction, community engagement begins first with reaching out to people, or with having others reach out to them. Enabling a strong social connectedness to the community members would enable SRCHC to better understand the needs of the community in order to both design and push for new programs or activities targeted towards encouraging socialization amongst those socially isolated or dealing with mental health problems.

A common challenge that P. Young noted for all CHCs is the growing discrepancy between the CHC's workers and the community's living environment conditions. Many staff members working within CHCs live outside the communities they serve. As a result, there is a knowledge difference of the community between the workers and the community members they serve, specifically in the realm of health (personal communication, March 14, 2019). Health is not merely just physical health; it is a combination of numerous social, mental, and environmental aspects. However, without knowledge of the social aspects unique in its health effects to a community, the concept

of treating health within a CHC can become highly clinical. Without a comprehensive knowledge of both the background and current circumstances of the community, there is less understanding of the underlying causes of health ailments in the community.

This lack of understanding can manifest in unintentionally negative ways when providing healthcare. Bandage health solutions to bigger issues can occur, including at SRCHC, such as treating asthma caused by bad house mould or toxic housecleaners (P. Young, personal communication, March 14, 2019). Viewing health in an extremely medical viewpoint can be extremely dangerous when considering the overall health of a community, and as P. Young comments, there needs to be a better understanding of the social determinants of health that affect these communities and the people that live in them. This will allow for individuals to work towards improving their own health on a long-term basis.

Related to the overly clinical perspective of health, a secondary challenge P. Young identified is the overly clinical and medical Board. Similar to the problems of having overly clinical programming, an overly clinical Board would result in health gaps focusing on social aspects of health for CHCs like SRCHC to follow; a diverse Board would be extremely beneficial in helping set strategies and goals that meet the needs of all forms of health (personal communication, March 14, 2019). With the Board providing primary direction for the numerous Community Health Centers, a diverse Board will thus be reflected in the different kinds of programs and means of improving health offered by the CHC.

P. Young further commented how community health and planning is an extremely important pair. Given how closely land uses can have direct impacts on a community's

health, it is imperative that proper local planning be completed with resident engagement. However, in the interest of maximizing CHCs and their ability to meet the community's ever-changing needs, having both staff members and Board members involved in the community's planning would provide much benefit to the CHC and community overall. This would allow for CHC representatives to help understand the priorities of the community members, as well as anticipate and act on any health concerns that the community may have over future environmental land use and the environment itself (personal communication, March 14, 2019).

3.2: Case Study 2—Davenport-Perth Neighbourhood Community Health Centre

3.2.1: History

The Davenport-Perth Neighbourhood Community Health Centre (DPNCHC) is a unique CHC within the Toronto area: it is amalgamation between a Neighbourhood Centre and a Community Health Centre. The CHC is characterized by its strong integration between their community support services and their health services. The Davenport-Perth community consists of a large diversity of groups. Poverty, lack of opportunity, and overall inability to access services have been identified as some of DPNCHC's main social challenges, which drives the forms of health promotion and programming available at the CHC (Davenport-Perth Neighbourhood and Community Health Centre, 2019).

As G. Langlois, the DPNCHC's lead Community Engagement and Health Promoter, explained, the area of Davenport-Perth originally consisted of numerous factories, warehouses, and industries operating within the area. However, in the past few

decades, these industries have disappeared. Land that used to house these industries have all been remediated, or are in the process of remediation. With the majority, if not all, of land around Davenport-Perth accounted for in remediation, there are few community concerns regarding the surrounding physical environment or its potential impact to health (personal communication, April 3, 2019).

3.2.2: Success

The DPNCHC has an extensive community support service that caters to all community members. Their goals in addressing chronic illnesses include environmental health perspectives by placing heavy emphasis on healthy living, including more physical activities. As G. Langlois explained, all programs that have the capacity to go outside, do. Outdoor programming or activities at the DPNCHC thus have included gardening, walking or pole-walking, soccer teams, bike programs, and many others. Many of the age-specific groups such as Early Years or Seniors incorporate outdoor programs as well (personal communication, April 3, 2019).

A highlight of DPNCHC is their thorough identification of the social determinants of health and the main social barriers their community members face (Davenport-Perth Neighbourhood and Community Health Centre, 2019). DPNCHC has thus both planned and developed programs specifically directed towards addressing these social needs. As Langlois described, the identification of these social determinants of health come from a plentitude of sources, including a Community Needs Assessment done every few years, observation of program participants, public surveys, and public health incidences and Local Health Integration Network (LHIN) reports. In addition, the DPNCHC employs a Planning and Research Analyst worker, who works directly with gathering and analyzing

data in order to help the CHC plan programs to meet the needs of the population living in the area (personal communication, April 3, 2019).

The strong integration between the DPNCHC's physical health care and community support services is another strength of the CHC. G. Langlois mentioned how strong communication and knowledge of both sides allow for workers on either side to refer community members to different physical health services or social programs to help ensure good health on all levels. The DPNCHC's Complex Care fully integrates both sides, where workers work together as a team to help to ensure patients with complex needs are getting the physical health care and support services they need to maintain a sense of stability in their lives (personal communication, April 3, 2019).

3.2.3: Shifts

In the DPNCHC's most recent strategic plan, their health goals are focused on reducing chronic illnesses and promoting healthy living and lifestyles (Davenport-Perth Neighbourhood and Community Health Centre, n.d.). Due to the range of more immediate health needs from the community, the DPNCHC has no immediate plans to integrate more environmental health perspectives into their strategic plan (G. Langlois, personal communication, April 3, 2019). Though promoting environmental health is not as big of a priority as promoting healthy behaviours changes, the environment still plays a role in improving the community's health; programs targeted towards physical wellbeing and mental health often incorporate outdoor activities as a means to support these initiatives.

G. Langlois commented how the focus on chronic illness has led to many programs focused on both modeling what healthy living looks like and encouraging

community members to do so. This has brought new chronic illness programs such as the diabetes prevention program, healthy cooking classes on a budget, chronic pain management, physical activity-based programs, and health education. The DPNCHC has addressed the challenge of changing behaviors by running engaging positive-health activities, repetition of healthy living messages, and other subtle ways to encourage the community to make more healthy decisions in their lives. They are also trying to encourage more self-reflection and goal setting within the community, and finding ways to make healthy living more manageable for all people with their busy lives and different cultural lifestyles. As Langlois further explained, due to chronic illness continuing to be a prevailing source of health concern and its worsening rates, chronic disease prevention and management will continue to remain the forefront focus for the DPNCHC (personal communication, April 3, 2019)).

3.2.4: Current Operations

G. Langlois discussed how a targeted population approach has been used regularly at the DPNCHC due to the different cultural groups in the community; the targeted population approach helps address the common problems specific groups face within the community. With the rise and identification of mental health as a growing community need, new programs have emerged. Many of these programs include environmental health perspectives, where getting outdoors is a large component of the program. Outdoor walking groups exist specifically aimed towards supporting those dealing with mental health and to encourage positive mental health space. Similarly, G. Langlois commented how the development of the Latin Men's United soccer team was a

response to a mental health need in the Latin male population of Davenport-Perth (personal communication, April 3, 2019).

Environmental health perspectives are not just used in mental health programming; physical health programming, such as the biking program, revolves largely on being outdoors to promote and encourage year-round physical activity. However, this program was not developed only as a means to promote more physical activity; through the targeted population approach, the program aimed to target the overall male population of the community who were less likely to take advantage of the CHC's health services. As a result, the biking program presented an opportunity for the CHC to reach out more to the males of the community in order to connect and increase awareness about the available CHC's health services. This ultimately provided a way to increase positive health outcomes more evenly across genders (G. Langlois, personal communication, April 3, 2019).

In trying to expand available environmental health programs, G. Langlois discussed how the DPNCHC is also trying to improve connections with other partners and organizations. For example, a successful partnership with the Toronto Parks People will enable more gardening programs and opportunities for community members to attend. Due to the limited capacity and resources, the CHC is unable to address all areas of concern, such as environmental health, should it come up in larger proportions. If the CHC's limited recourses prevent them from tackling an issue alone, they will try partnering up with other organizations to form a bigger group to address the issue, or will make the issue known to the local elected representative of the community (personal communication, April 3, 2019).

3.2.5: Challenges

As G. Langlois noted, funding is a main challenge in running programming (personal communication, April 3, 2019). The lack of funding often results in strained resources, which can thereby impact what programs are able to run and to what extent. The ability to deliver environmental programs thus depends on funding coming through; similarly, funding dictates what programs, if any incorporate environmental health perspectives at all, are able to run.

For environmental health programs to be delivered, they would have to be funding-dependent. DPNCHC is not unfamiliar with funding-dependent programs; specific programs at the DPNCHC, such as the existing diabetes prevention program, are solely funding-based and funding-dependent (G. Langlois, personal communication, April 3, 2019). This provides limitations in regards to how long this program can run, and how extensively a service it can provide. With funding-based programs, programs are subject to quick starts and quick finishes as soon as funding is no longer available. The lack of long-term commitment to programs can provide a problem if the community is responding positively to its delivery. For funding-based programs that are meeting heavy community needs, the programs' retraction can occur too soon, before the community is ready to operate without it.

In contrast, other programs, such as the Latin Men United soccer team, would benefit from having more resources available for them to help improve the program, such as having a Spanish-speaking mental health worker able to work with the group three times a week (G. Langlois, personal communication, April 3, 2019). However, as G.

Langlois further mentioned, securing funding for a group not socially favoured—such as youths or seniors—can prove to be quite difficult.

As G. Langlois described, there is no shortage of ideas or health initiatives for the CHC to run. Ideas for promoting environmental health have included building a rooftop garden or having beehives; however, the problem remains finding the resources to build and maintain these initiatives. In addition, the abundance of ideas between the community and the CHC can also provide a challenge. Though the CHC does their best to respond to them as best as possible, there are only so many resources the CHC has at its disposal to address at all at one time. As a result, not all pressing issues are within the CHC's capacity or part of their overall mission and values to address them. The DPNCHC thus employs a Theory of Change model to determine whether they have enough resources to allocate to new programs to address new needs within the community. The Theory of Change works by assessing DPNCHC's available resources and assets in conjunction with their main goals, methodologies, and vision of final health outcome they wish to achieve. All new programs and concepts must go through the Theory of Change in order to be executed by the CHC (G. Langlois, personal communication, April 3, 2019).

Related to funding challenges are the staff capacity and their ability to meet the needs of numerous programs. DPNCHC has been creative in allocating some staff hours towards helping support other programs with high needs, such as facilitating the Latin Men United soccer team games. However, though a few hours helps meet some needs, the lack of a full-time position prevents the full needs from being met and for proper

programming follow through to occur (G. Langlois, personal communication, April 3, 2019).

Another problem the DPNCHC faces is their lack of available space in the surrounding area to run programs. Of the spaces that are available, many are already taken by other local organizations. This places limitations on what new programs can run and where, in addition to the extent and frequency existing programs can run, such as the Latin Men United soccer team practices or games (G. Langlois, personal communication, April 3, 2019).

Unrelated to funding, G. Langlois identified lack of health literacy by community members as a social challenge for the DPNCHC to address. Health literacy consists of helping community members understand and communicate to others what their ailments are; this in particular poses problems to various groups of individuals, ranging from non-native English speakers to clients with decreased mental retention due to illness or mental complexions (personal communication, April 3, 2019).

4. Analysis and Discussion

4.1: Common Factors Influencing Environmental Health and Justice Perspectives

In comparing both the case studies and the reports on CHCs in general, common variables emerge regarding how initiatives and programs are decided upon. More specifically, these factors play important roles in determining the overall presence and/or strength of environmental health programs or initiatives at each CHC.

4.1.1: History and Mandates

CHCs are often situated in communities that have a high need for health interventions, serving those who need it the most. As a result, the neighbourhood's history often influences what kinds of mandates are built into each CHC.

The South Riverdale community and the Davenport-Perth community both have unique histories that define their CHC's mission and goals. Whereas SRCHC has a strong and public history of environmental justice and advocacy, DPNCHC has a history of tackling serious social, economical and health issues in the area, progressing from a Neighbourhood Centre into a Community Health Centre. These historical events, which act as a reflection of each community's self-identified needs, have thus influenced the overall mission and values within each CHC (SRCHC's reflected in Figure 2 and DPNCHC's in Figure 3). Core services and programs are thus determined and prioritized by how well they are able to support these values. To this extent, the unique needs, social conditions, and histories behind each CHC's catchment area determine whether sustaining environmental health is integrated as a fundamental value. This ultimately influences how strong or effective the presence of environmental health initiatives would be at each CHC, and whether it would help meet the identified and immediate needs of the community.

Figure 2: South Riverdale Community Health Centre's Mission, Vision, and Values

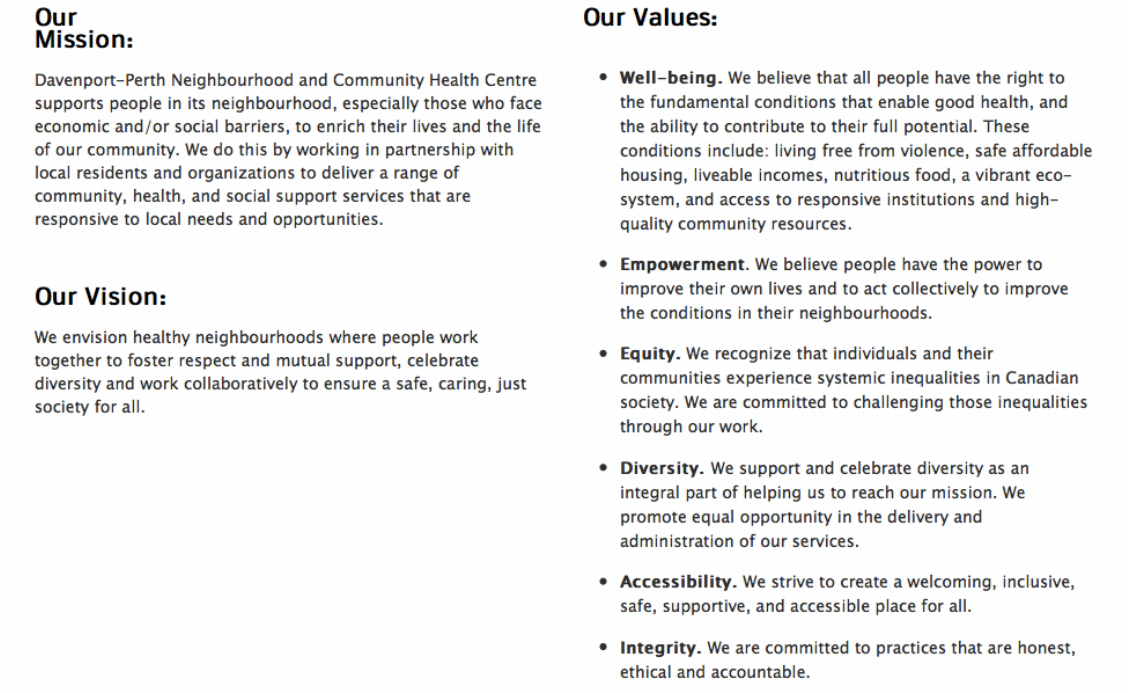

Figure 3: Davenport-Perth Neighbourhood and Community Health Centre's Mission, Vision, and Values

4.1.2: Funding and Resources

Funding and resources play an extremely important role in determining what programs, directly or indirectly related to environmental health, are able to run. For the majority of CHCs, programs are only able to run so long as there is sufficient funding to support its delivery. Specifically, funding informs a large amount of what available resources and staff capacity are at a CHC's disposal to help deliver, sustain, and improve programming both new and existing. Figure 4 presents SRCHC's funding breakdown for the 2017-2018 year, and Figure 5 and 6 for DPNCHC's 2017-2018 year. The two funding profiles thus depict the different funding circumstances each CHC experiences, from the differing funders, the amounts received, and how the funds are used.

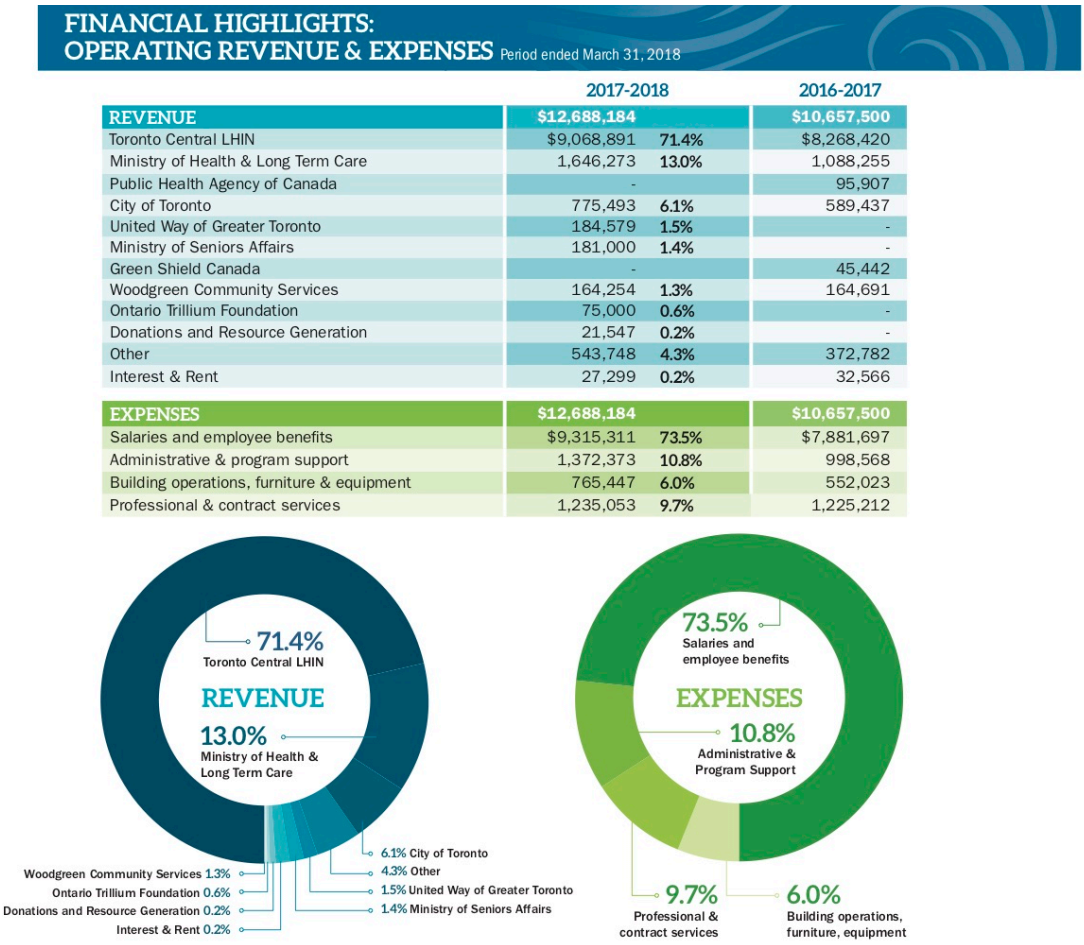

Figure 4: South Riverdale Community Health Centre's 2017-2018 Revenue and Expenses

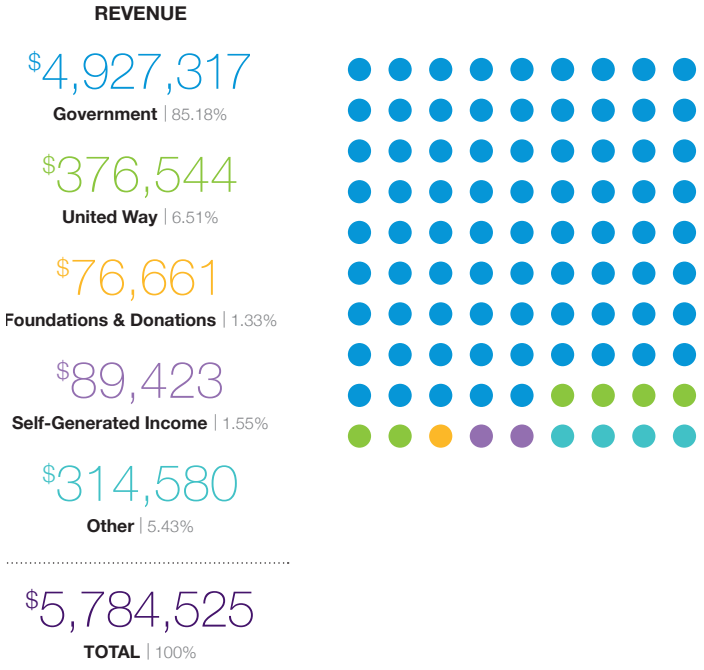

Figure 5: Davenport-Perth Neighbourhood and Community Health Centre's 2017-2018 Revenue

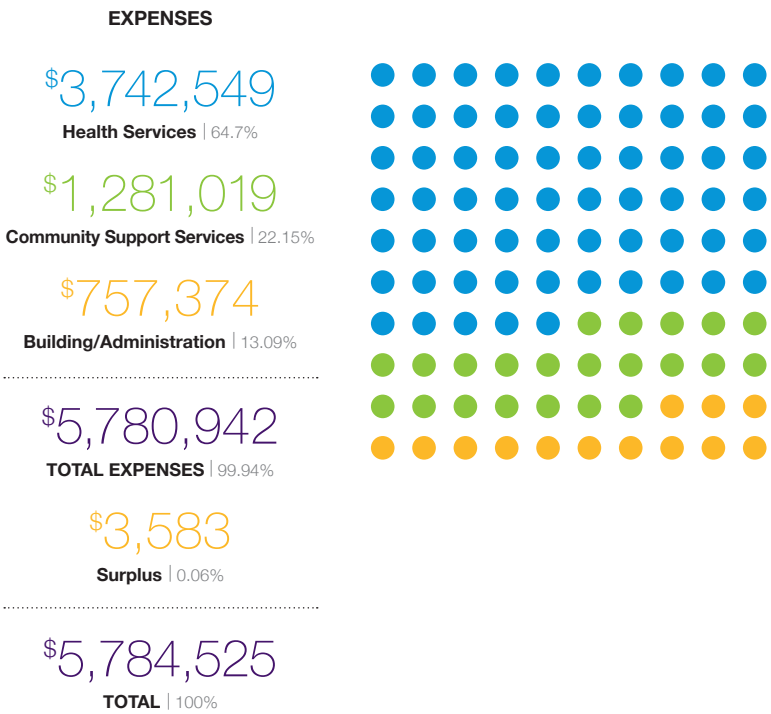

Figure 6: Davenport-Perth Neighbourhood and Community Health Centre's 2017-2018 Expenses

From both profiles, it is apparent that the government, either directly or indirectly through LHINs, provide the bulk of each CHC's funding. In particular, SRCHC noted that they received 71.4% ($9 million) of their total revenue that year from Toronto Central LHIN. Combined with other amounts from municipal and provincial government sources, the government as a whole ultimately supplied a total of 91.9% ($11.6 million) of SRCHC's overall revenue. Though DPNCHC's annual report did not list or break down the specific government sources they received funding from, 85.2% ($4.9 million) of DPNCHC's revenue was provided through all government sources combined.

The stark differences in funding, programs, and number of clients served can be demonstrated by comparing SRCHC, who serviced 10,162 clients and ran 151 groups programs in 2017 (South River Dale Community Health Centre, 2017, p. 6), to DPNCHC, who served 2682 clients and ran 77 services that same year (Davenport-Perth Neighbourhood and Community Health Centre, 2017, p. 14). Between the two, there is a difference of roughly $4 million in funding received from LHINs, with SRCHC receiving $9 million and DPNCHC receiving less than $4.9 million ($4.9 million being the amount total received from all government sources, including LHINs). From this, the client to funding ratio is $885 per client and $59,602 per service at SRCHC, and less than $1827 per client and $63,636 for DPNCHC. However, it is important to note that funding allotted for services and programs are disproportionate, where some programs require more resources to maintain. Further funding breakdowns per program or service was not available for either of the case studies. As these two case studies acted as a sample, it can be inferred that the range of funding, services provided, and overall clientele across all CHCs spans a wide spectrum.

As noted by the 2017 audit report (Office of the Auditor General of Canada, 2017, p. 188) and the annual funding reports of both SRCHC (South Riverdale Community Health Centre, 2018) and DPNCHC (Davenport-Perth Neighbourhood and Community Centre, 2018) as demonstrated in Figures 4, 5, and 6, the majority of funding CHCs receive is from the government through LHINs. For better or worse, the lack of funding allocation requirements by the government for core services enables CHCs to distribute funds to areas deemed a community priority. However, as the audit noted, the base amount each CHC receives differs, and are dependent on each CHC's historical levels of funding rather than number of clients served (p. 215). This means for some CHCs, government funding is not sufficient enough to provide standard core services and programs for all their clients; additional sources of funding must be secured to ensure basic client demands are met. Though this is not the case for all CHCs, it is important to note the difference in financial strain each CHC experiences, which thereby impacts the overall type of services and programming available. For CHCs whose funding levels do not match their level of activity, unless environmental health is identified as an inherent community priority, any leftover funding is better funneled towards existing programs or services supporting high-community needs.

For the DPNCHC, the delivery of any environmental health programming or initiatives would have to be solely dependent on external funding. Funding, as identified by Langlois, is one of the main challenges the CHC experiences in their ability to run new programs or initiatives (personal communication, April 3, 2019). Though ideas like building a rooftop garden or having beehives have long been proposed to help promote environmental health, the main obstacle is finding the funding and resources to both build

and maintain such initiatives. As a result, the difficulties in securing funding and resources not only strain the CHC's ability to deliver new programs, but also the extent in which existing programs are able to run. Such is the case for DPNCHC's Latin Men United soccer team, where additional funding would be extremely beneficial to help obtain a mental health worker to facilitate games. However, as Langlois mentioned, though doing so would improve the program greatly, securing funding to meet and support a group of Latino men with mental health needs is extremely difficult. This is because the group itself exists outside mainstream socially favoured groups, such as Caucasians, youths, or seniors (personal communication, April 3, 2019). By preferring socially favoured groups as funding recipients, health programs targeted towards other vulnerable populations are neglected. This speaks to a form of systematic discrimination of funding allocation the DPNCHC faces, where the race, class, and culture of vulnerable populations impact the level of resources they are able to receive.

Though funding itself was identified as less of a constraint due environmental health being pre-established as part of SRCHC's mandate, funding and resources do still limit the duration and growth of programs. Running out of money and funding to continue running a program is often a hard limit as to how long a program can run (P. Young, personal communication, March 14, 2019). Similarly, many programs require additional funding in order to grow; programs with the potential to expand year-round, such as the gardening program, are solely depending on the SRCHC securing external funding. The additional naturalization of SRCHC's rooftop garden was similarly a result of external funding coming through.

4.1.3: Staff Capacity

Related to funding, staff capacity similarly influences whether programs—environmental health related or not—can run. Funding often informs the number of staff a CHC can afford to hire on, who can then in turn run programs. As noted by the 2017 audit report, the lack of minimal staffing models often results in inconsistent numbers and types of physical health providers at each CHC (p. 202). This can lead to uneven staff numbers between those providing physical health care and those delivering community programs. Skewed staff numbers can thus impact a CHC's capacity to run programs other than those that are absolutely necessary.

Staff capacity informs both the quantity and quality of programs at the DPNCHC. As Langlois explained, staff roles are often over-extended, with limited staff capacity stretched to cover as many high community needs as possible. This can include allocating staffs hours towards helping other programs, such as facilitating the Latin Men United soccer team games. In the Latin Men United's case, obtaining the resources to hire a Spanish-speaking mental health worker dedicated solely towards working with the group three times a week during games would significantly improve the program (personal communication, April 3, 2019). Alas, the sheer lack of staff capacity and availability to properly facilitate and deliver programs thus places restrictions as to whether new programs, such as environmental health one, can be successfully run.

As noted by Young, staff capacity plays a key part in dictating how much work the SRCHC is able to do in a given area. Specifically for environmental programs, the lack of money, staff capacity, funding, or any combination of the three are often the main resource restrictions leading to discontinued programs. Most recently, a set

environmental health programs targeted towards improving indoor air quality was discontinued due to the departure of the staff member who previously ran it. With no remaining staff able to pick up and continue that line of work, the air quality programs were ultimately discontinued, with their funding redirected (personal communication, March 14, 2019). This speaks to the limiting factor staff capacity plays in determining whether environmental programs can run, and if so, for how long.

4.1.4: Community Interest and Need

Part of a CHC's role is to provide services specific to their local community's needs. As a result, community interest plays an extremely heavy component in determining what programs run, and whether they are successful. Programs need to be successfully received by the community in order for a CHC to continue delivering those programs. With land use changes, shifts in population, and ongoing gentrification, community interests have a tendency to shift as changes occur.

Community interest has heavily shaped what kinds of environmental programs or initiatives run at the SRCHC. Back in the 1980s, when the South Riverdale community was experiencing detrimental health impacts due to contaminated soil and polluted air, community action was prompted directly from the high community interest in environmental health initiatives. In response, the SRCHC took on numerous environmental health initiatives to meet the community's concerns and needs, such as screening for high lead levels in children's blood, hiring their first environmental health promoter, and helping organize community meetings with stakeholders to discuss concerns over environmental health (P. Young, personal communication, March 14, 2019). However, ever since the noxious industries were relocated and pollution levels

mitigated, community need and interest in environmental problems has declined. Though concern for air quality still remains, it has been steadily shifting away to a lesser degree. The lack of immediate need or interest from the community enables environmental initiatives like improving indoor air quality to be phased out without backlash. As Young explained, a key indication that a program is not successful or no longer successful is the lack of community attendance. Rather, concerns over air pollution have shifted away from industry pollution and towards heavy traffic emissions. This has spurred a branching interest in active transportation as a means to both reduce air pollution caused by vehicles and to promote pedestrian and cyclist safety (personal communication, March 14, 2019). As a result of this shift in community interests towards biking initiatives, the main types of environmental programs delivered at SRCHC too are shifted accordingly.

Unlike the South Riverdale community, the Davenport-Perth community does not have a history of environmental justice and advocacy. As a result, community interest differs. Though there have been some environmental concerns regarding gelatine factory smells or levels of acceptable nuclear waste emitted in the past, there has been little to no follow-up concerns to suggest a community need to act upon (G. Langlois, personal communication, April 3, 2019). For the DPNCHC, running strictly environmental health programming or initiatives is a lower community priority in comparison to other matters. Rather, available environmental health initiatives often serve to meet higher forms of community needs and interests. Outdoor programming or activities such as gardening, walking or pole-walking groups, soccer teams, bike programs, and many others aim to improve mental health and support more physically active lifestyles. To this extent, community interests and needs thereby act as heavy indicators as to what kind of

programs, environmental health or otherwise, are most beneficial for the DPNCHC to run.

4.1.5: Physical Environment

Specific to the Davenport-Perth area, space is a strained resource that poses a large barrier to delivering outdoor environmental programming both old and new. Existing initiatives, such as the DPNCHC's small garden, are unable to expand due to the sheer lack of physical space available. As a result, community members interested in larger gardening opportunities are often recommended to join other community gardens (G. Langlois, personal communication, April 3, 2019). Searching for space to run programs outside the DPNCHC can also be difficult; though there are available spaces to be used, other local organizations may have already secured permits allowing them to use the space first. This competition poses problems for existing programs, such as the Latin Men United soccer team, let alone for new programs.

4.2. Explanation Building Synthesis

4.2.1: South Riverdale Community Health Centre

With the South Riverdale area's history of industrial polluters directly affecting health, concepts of environmental justice and health have been integrated early on as one of SRCHC's determinants of community health. However, as the industries have been shut down or relocated, interests in environmental health and justice have slowly decreased amongst the community. Evident by SRCHC's existing environmental health programming, interest has not completely disappeared, but it is significantly less of a priority than it used to be. Environmental justice, in particular, has declined due to a lack of environmental hazards to be concerned of.

Following the environmental justice advocacy victory, many people have since moved on from the South Riverdale community, especially those originally working in and part of the environmental advocacy group (P. Young, personal communication, March 14, 2019). Without a need to keep the same leaders who originally drove the environmental justice group forward, environmental justice initiatives have disappeared. Similarly, with the lack of industries in the area, industry workers themselves have since moved away. This has paved the way for newer populations to move in, those coming in with pre-existing interests other than the environment. Combined with the stretch of time residents have had to recover from the industries' negative health effects, overall interest in environmental health and its condition has decreased as time goes on.

Decreasing interest is reflected in the lack of protest against the abolishment of previous environmental programs focused on improving air quality inside buildings. Rather, interests have shifted away from immediate environmental health concerns. For example, air quality has since shifted away from industry pollutants and instead towards growing emissions (P. Young, personal communication, March 14, 2019). Though this still is a form of environmental health, it is also important to note the nature of the concern itself is now also tied into pedestrian, cycling, and road safety.

One specific new emergence is the SRCHC's extensive harm reduction program. Though unconventional, SRCHC's extensive harm reduction program acts as a form of environmental justice initiative. Having shifted away from the effects of pollution and contamination on the entire community, the focus is now on populations with higher needs (P. Young, personal communication, March 14, 2019). More specifically, harm reduction acts as a form of promoting healthy environments for all community members.

By providing safe consumption sites and access to additional health resources, health-promotive environments are created for individuals with harm reduction needs. This further acts to enhance the social and physical environment of the collective community, where safe consumption sites, and thereby safe disposal sites, help reduce the number of discarded consumption instruments in public recreation places. The extensive harm reduction programming thus reflects SRCHC's recognition and response to the community's urgent need for a more health-promoting environment.

Though environmental health and justice interest has decreased, the transition the SRCHC has undergone in regards to their environmental health programming follows a progressive direction supported by many academics. Specifically, shifts from individually-focused to holistic community-focused forms of health promotion and intervention have been discussed at length as being more effective towards improving community health, for it targets prevention of poor health over mitigation of poor health. As Merzel and D'Affilitti (2003) write on CHCs, the SRCHC's shift away from initially testing individual levels of blood to air quality acts as a positive derivation away from individualist health interventions and towards collective community health (p. 570). More specifically, the transition from improving indoor air quality to outdoor air quality in conjunction with pedestrian safety aligns with Stokols' writings on underlying environmental factors (1992, p. 6-7). In accordance to Stokols, such an initiative that targets environmental enhancement in addition to communal safety acts as an extremely effective form of health promotion (p. 9). By addressing both underlying causes of poor respiratory health and physical safety, South Riverdale's community health can improve in both a physical injury prevention sense and environmental enhancement sense.

Though SRCHC still has environmental health programs, they are not delivered to the same extent as they used to be, when the environment was a more prominent and immediate concern. The decreasing lack of interest has thus resulted in the abolishment of environmental justice groups and overall less environmental health programs, especially as newer concerns and needs, such as unaffordable housing and social isolation, are growing concerns within specific populations. However, these transitions ultimately provide a positive opportunity to effectively improve overall community health on both a physical environment and social community levels. In conclusion, though the number of environmental health programs available has decreased, SRCHC continues to integrate environmental health initiatives through their environmental health programs.

4.2.2: Davenport-Perth Neighbourhood and Community Centre

From both publically available documents and the interview with DPNCHC's Community Development and Health Promoter, the DPNCHC ultimately integrates environmental health perspectives through their physical and mental health promotion initiatives. Despite the Davenport-Perth area being originally factory and industry sites, pre-existing social and economical concerns amongst the community have resulted in less concern over environmental justice or health in favour of higher, more immediate and individual health needs.

The needs of the community are reflected directly in DPNCHC's priorities. From their first and most recent 2014-2019 Strategic Plan as a CHC, one of the DPNCHC's current focuses remains mainly on preventing, reducing, and alleviating chronic illness amongst the community (G. Langlois, personal communication, April 3, 2019). Given the

more high-risk social and economical conditions amongst community, many community members lead very busy lifestyles. This results in less time for individuals to focus on health, especially with a lack of access to affordable, healthy foods. As a result, the majority of DPNCHC's programming is focused on modeling healthy living and changing behaviours of the community in manageable ways that work with the community's immediate social conditions and restraints. In the face of overall behaviour changes, environmental health is less of a priority; however, environmental health perspectives are still integrated in many of these health promotion programming. These programs are instead focused on improving overall physical and mental health of individuals, but still incorporate environmental aspects to help promote healthier lifestyles. Such programs include outdoor walking groups, a soccer team to alleviate mental health problems, and tending to DPNCHC's garden. Though changing behaviours is an admirable goal and no small feat to accomplish, it is also an individualist means of health promotion that, as noted by Israel et al. (1994, p. 150), is appropriate in addressing immediate health problems, but not necessarily larger, more social problems.

As Stokols (1996, p. 283) and Israel et al. (1994, p. 150) write, key aspects of addressing underlying environmental problems include dealing with social problems of environmental enhancement, affordable housing, or food security. For the DPNCHC, whose dining programs are targeted towards individuals in search for meals, establishing affordable Famers Markets would be an extremely beneficial form of empowering individuals in addition to addressing a large social and environmental health problem that affects numerous community members (Freedman et al., 2012, p. 2). Such empowerment and changes to the overall social ecology of the community would enable community

members to begin taking agency over their lives collectively, and to possibly come together to help maintain positive environmental health by reducing food insecurity.

Though introducing environmental health programming is not a main priority at the moment, the DPNCHC is not short of ideas to help improve overall environmental health. However, the main determinant preventing environmental health programming from being delivered is funding and physical space (G. Langlois, personal communication, April 3, 2019). As Homer and Hirst (2006, p. 452) comment, population needs often change faster than financial structures, health interventions, and overall system designs are able to keep up. Already, the DPNCHC experiences strains for resources and staff to ensure current programs are able to operate to their full potential; any additional funding acquired would thus benefit going towards improving existing programs and alleviating staff strains. Though funding and staff strains are not referenced in the academic literature surrounding CHCs, the 2017 Ontario Audit on Community Health Centres does mention inconsistent funding across CHCs and lack of minimal staff models as areas of improvement for all CHCS (Office of the Auditor General of Ontario, 2017, p. 181-182).

Though the DPNCHC does integrate environmental health perspectives into their programming, promoting immediate physical and mental health for healthier lifestyles takes a priority. Any programming dedicated solely to improving environmental health would thus be solely dependent on obtaining funding to deliver it. From this, the DPNCHC has less of a focus working towards integrating environmental health due to the more dire community health concerns and needs. Overall, though the DPNCHC does not have any direct environmental health programming, they are still successfully

integrating environmental health perspectives to help promote physical and mental health to its members.

4.3: Discussion

4.3.1: Community Health and Centre Differences

Both the SRCHC and DPNCHC cases exemplify just how different community health states are in Toronto, where different social determinants of health affect each community in different ways. Specifically, these influence each community's response to similar problems experienced by numerous communities. This is evident by the common land use history of both South Riverdale and the Davenport-Perth area, yet drastically different responses. Though both communities were exposed to environmental toxins, the sheer difference in social capacities was a heavy determinant in each community's ability to mobilize against them. Differences in social and economic conditions, such as class, race, culture, and overall Canadian status (or there lack of), greatly influence health and community priorities. These community-based priorities are thus taken on by CHCs, whose goals are to alleviate the most urgent health needs amongst the community, which can range anywhere from providing immediate relief from hunger to helping organize community advocacy for near-future changes. From these varying community needs, and thereby temporal scopes, arise unique definitions of community health within each community.

Having a strong environmental health or justice presence at each CHC is ultimately determined by each community's vision or concept of positive community health. As Goodman et al. (2014, p. 5-6) illustrate, "community health" is defined differently in all geographical locations by local healthcare centres, government

departments, social service centres, and more. As a result, it is not uncommon for different communities, and the CHCs that work in them such as SRCHC and DPNCHC, to have different goals and methods tailored towards achieving their own local definition of community health. These goals not only correspond directly to individual community needs, but also to each CHC's capacity to help support these health initiatives. To this extent, it was not completely unexpected that the strength of environmental health's presence in CHCs would vary, dependent on each community's local health priorities.

Though the presence of environmental health perspectives and initiatives was bound to range between CHCs, what was surprising was the discovery that environmental health is not considered or acknowledged as a strong basic, yet core, necessity for overall community health. This is reflected in both CACHC and the Alliance's mandates for CHCs to follow, with no direct mention of environmental health or justice and their importance to community health. For SRCHC and DPNCHC, whose communities both have industrial backgrounds, this is a surprising discovery. With industrial operations so close to residential areas and academia supporting environmental and human health risks to exposed populations (McCarthy et al., 2001, p. 611), the possible health impacts would have paved a way for environmental justice concerns to emerge and be sustained long-term. This is especially true since both SRCHC and DPNCHC identified socially vulnerable populations living in the area. However, as explained in both case studies, CHC concerns over land use is often directly linked to community interest itself; as such, the lack of environmental concern, both current and past, may be attributed to numerous factors, including more imminent health concerns or a lack of knowledge regarding either the existence of industries or the possible harms of old industry sites may pose.

4.3.2: Realistic Challenges

The 2017 Ontario Audit on Community Health Centres revealed surprising areas of improvement for CHCs across Ontario (Office of the Auditor General, 2017, p. 181-182), challenges not referenced in academic literature. Many of these challenges were confirmed by both SRCHC and DPNCHC, such as inconsistent utilization, base funding, staffing, and core services. Client utilization is expected to vary from CHC area to CHC; however, the fact that base funding allotted to CHCs from LHINs correspond to historical base funding and not levels of client activity poses challenges for all CHCs working at overcapacity. Similarly, lack of minimal staff models or core services leads to unequal access or availability to different programs and services for clients at each CHC. Though the challenge of understaffing at CHCs is mentioned in American context by Rosenblatt et al. (2006, p. 1045-1046), the study mainly focuses on the number of family physicians, omitting the CHC staff working in other necessary areas of health or community support services. These challenges ultimately have effects on the overall operation of CHCs, including internal decisions made regarding whether the programs being run have the resources to be directly environmental health related or to integrate environmental health perspectives in its delivery.

Though the 2017 Audit addressed many of the challenges found across all CHCs in Ontario, both DPNCHC and SRCHC noted other individual challenges. Though the challenges themselves were surprising discoveries, the emergence of individual challenges is to be expected. This is especially true for metropolitan settings, such as urban Toronto, where the main social determinants of health affecting communities are often results of political and social aspects (Purdom, 1964, p. 138). The SRCHC

identified individual challenges regarding consistent community engagement, overly clinical focuses on health in programming, and staff unfamiliarity with the main social determinants of health affecting the community's health. In stark contrast, the DPNCHC commented that community engagement and integrated physical and social health services posed little to no challenge at all. Instead, their challenges lay in funding, which ironically was not identified as a large concern by the SRCHC. These additional and contrasting challenges speak to the different conditions the two CHCs operate under, and how the challenges suggested by both academia and public documentation do not encompass the full scope of difficulties CHCs face.

Of the common factors influencing overall CHC program delivery and operation, though some are referenced briefly in public documents such as government or organization reports, the majority of them are scarcely mentioned in academia. This comes as a very large surprise, especially given how large of an impact community interest and funding plays on determining what programs, if any, directly address or incorporate environmental health perspectives. Rather, it would appear academic literature is more concerned about the theoretical concepts behind what health promotion methods and strategies should be used to best achieve positive community and environmental health. This results in a gap between theoretical knowledge and actual praxis, where social and political problems affecting healthcare delivery itself are not acknowledged. This problem is addressed by Glasgow et al. (1999, p. 1322), who comments on the discrepancy between academic evaluations of health initiatives before and after they are used in public. Academic evaluations of health initiatives are often done in controlled environments and thus fail to account for the difficulties of reality,

such as understaffed health centers. As a result, there remains a gap in knowledge of what problems healthcare centers face and how to overcome them; until a proper understanding is acquired, executing health initiatives and strategies supported by the academic literature will remain extremely difficult and on a case-by-case scenario.

5. Recommendations

Following the examination of the two case studies and their comparisons to existing academic literature, recommendations to the two case studies, all CHCs, and the overall healthcare system are as follows:

- **Close academic knowledge gap on CHCs and other healthcare centres**.
    - A review of existing academia revealed a lack of understanding of the realistic challenges and limitations CHCs face, especially in trying to establish environmental health initiatives. As a result, these challenges are not acknowledged in academic strategies on improving healthcare, nor have theoretical strategies been devised to solve them.
- **Formulate stronger strategies to address and/or improve social determinants of health.**
    - Though many social determinants of health are uncontrollable, devising strategies to help mitigate their impacts or improve conditions will enable better health outcomes on more than one front. This includes investigating any plausible alternative methods or evidence-based interventions proven elsewhere.

- **Increase overall funding to CHCs and ensure funding distribution supports the CHCs who need it the most.**
    - Allocating more funds and resources to CHCs will enable better programs and/or services in both quantity and quality, and minimize health needs from going unaddressed due to lack of resources. In addition, CHCs at client overcapacity will be able to receive the funding necessary to meet all client demands by either running more programs or hiring more staff.
- **Set minimum staff models and increase staff capacity.**
    - Minimum staffing models will ensure a basic, consistent number of staff and health care providers available at each CHC. Increasing staff capacity will further reduce operational and practical strain of running new or existing program, such as long-term environmental health programs, and thereby increase quality and/or quantity of services.
- **Larger focus on collective community changes instead of behaviour changes.**
    - Though encouraging positive behaviour changes is important, collective community change places emphasis on improving larger social community conditions outside individual control. Such changes would improve health outcomes collectively all at once, and help improve health equity amongst community members.
- **Stronger environmental health and justice perspectives and/or initiatives targeted towards enhancing community environments to be more health-promotive.**

- Improving the social and environmental landscape such as harm reduction, maintenance of recreation sites, better street safety, etc. will foster a more positive community setting. This will also provide a more equitable access to health-promotive environments for community members to enjoy.

6. Conclusion

Through this exploratory study, it has been revealed that environmental health perspectives are being integrated into the health promotion methods and strategies at CHCs. Environmental health perspectives appear to exist mainly in two ways: through direct community environmental health programming, and through being incorporated into individual physical or mental health promotion initiatives. Environmental justice, however, does not seem to have much of a focus at the present day, despite many communities being historic sites of industries. Rather, existing and new emerging community concerns in addition to land use changes have resulted in less community priority on environmental justice and health initiatives for CHCs to act upon. Though still integrated, environmental health perspectives appear mainly to be used in conjunction with other health initiatives, such as promotion of outdoor physical activity or as a means to reduce social isolation.

At this current day, environmental health programming is only delivered if a CHC identifies environmental health as a core focus to allocate internal resources to, or if external resources are acquired to run a funding-based program. Integration of environmental health as a core value is based upon each community's historical pre-existing social conditions, whereas obtaining resources to run funding-based

environmental programs are completely dependent on external sources. Both factors are ultimately uncontrollable by CHCs. In particular, lack of resources play a key role in limiting a CHC's ability to support their initiatives. The majority of sparse resources need to go towards programs targeted towards alleviating urgent community needs, and ensuring they are sustained. This results in fewer leftover resources available to be put towards addressing less imminent, but no less important, overarching health needs. Though secondary, initiatives like enhancing community environments to be more health-promotive or devising preventive strategies against more "upstream" social problems are ones that, if properly addressed, have the potential to positively impact health outcomes in more ways than one.

The problem of limited resources can mainly be traced back to higher political forces, where growing preferences for neoliberal economic strategies heavily reduce the overall support the government can provide to healthcare. This ultimately acts to suppress vulnerable populations and the CHCs that work to help them; without proper allocation of resources to CHCs to help support a community's health, the risk of vulnerable populations succumbing to detrimental health outcomes grows significantly. Already, concerns over CHCs' future ability to properly support their communities are rising, following the provincial government's cuts to healthcare. Though there is a clear need for methods and strategies to be formulated to incentivize more funding from the government and not less, the problem unfortunately remains outside the scope of this paper. Further academic, and potentially advocacy, work is needed to better understand the realistic challenges CHCs face on all fronts, and how best to navigate a growing neoliberal landscape to overcome them.

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