Comparing Labour Force Capacity-Building and Access to Care in the Health Care Systems of Nova Scotia and Cuba

by

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Dalhousie University is located in Mi'kma'ki,

the ancestral and unceded territory of the Mi'kmaq.

Muiuatmu'kl msɨt kinu Ankukamkowe'l – We are all Treaty people.

Dedication

This thesis is dedicated to all health care workers in Nova Scotia and in Cuba. Thank you for your invaluable service to your communities. You are the backbone of your respective health care systems and, by extension, your entire province and country. For those in Nova Scotia, I owe my life, and the lives of many of my loved ones and friends, to you, and many of you are my loved ones and friends. Never forget or doubt your value. For those in Cuba, your duty to your community in the face of embargo and economic crisis is beyond inspiring and you deserve the utmost appreciation for your service in the face of such hardships.

This thesis is also dedicated to all health care workers in Gaza, who, this year, have been operating under the most unimaginably difficult conditions in the entire world. You have continued to selflessly serve your community in the midst of near total destruction of all your health infrastructure, a blockade on your home, direct violent assault on your patients, famine and epidemics, and direct attacks on yourselves and loved ones. Your courage is a testament to the unwavering Palestinian spirit and should be the pride of all humanity.

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Abstract

Nova Scotia has a severe lack of family doctors and other workers that is deeply hurting its' residence ability to access care. Cuba has the highest number of doctors per population in the world by far, and spends much less proportionately on health care while maintaining impressive outcomes for a country in it's position. This study seeks to answer; Can Cuba's methods of building labour capacity and providing access to primary care provide solutions to Nova Scotia's health care problems? To answer this, this study employed interviews of Nova Scotian policy-makers and health care workers and of a Nova Scotian expert on Cuba, a survey of Nova Scotian residents, non-participant observation in Cuba, and extensive literature review on the Cuban and Nova Scotian health care systems. It concluded that Cuba's approaches of recruiting health care workers from poor/ordinary communities, eliminating tuition costs for training, assigning medical graduates to communities in need for two years, and its focus on preventative health care are both the key reasons behind its successes in capacity-building and access-provision, as well as key differences between its system and Nova Scotia's.

List of Abbreviations

BNUM - Base Nacional de Urgencias Médicas (National Base of Medical Emergencies)

CAD – Canadian Dollar

CEO – Chief Executive Officer

CPSNS – College of Physicians and Surgeons of Nova Scotia

DHW – Department of Health and Wellness

EHS – Emergency Health Services

ELAM – Escuela Latinoamericana de Medicina (Latin American School of Medicine)

EMC – Emergency Medical Care

EMR – Emergency Medical Responder

EMS – Emergency Medical Services

ER – Emergency Room

GDP – Gross Domestic Product

GP – General Practitioner

HANS – Health Association of Nova Scotia

HIV/AIDS – Human Immunodeficiency Viruses/Acquired Immune Deficiency Syndrome

HRM – Halifax Regional Municipality

IFCO – Interreligious Foundation for Community Organization

IWK – Izaak Walton Killam Hospital for Children

MINSAP – Ministerio de Salud Pública (Ministry of Public Health)

MSI – Medical Services Insurance

NSHA – Nova Scotia Health Authority

OECD – Organization for Economic Cooperation and Development

ONEI – Oficina Nacional de Estadística e Información (National Office of Statistics and Information)

QEII – Queen Elizabeth II Health Sciences Centre

RHA – Regional Health Authority

US – United States

USD – United States Dollar

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1. Introduction

1.1 Practical Problem

Tim Houston, premier of the Atlantic Canadian province of Nova Scotia, won his 2021 election campaign on a promise to fix the province's health care system (Smith, 2021, Kirk & Kimber, 2023). As of 2024, it is common in Nova Scotia to hear complaints of inadequacies in the province's health care system from local media, professionals in healthcare or related sectors, recent patients, and the general public. Most commonly cited issues include a lack of health care workers (especially family doctors and paramedics), over-working of existing workers, rural emergency room closures and long wait times for the ERs that are open. The crisis in the province's health care system is fatal. Winter of 2023 saw two Nova Scotians die after seven-hour waits in their local ERs (Renić, 2023). On January 11, 2023, the Nova Scotia New Democratic Party called for an inquiry into emergency room deaths, citing 558 ER deaths in 2022 and 43,000 people having left ERs without being seen by a doctor (Global News, 2023). Additionally, by May 2023, there were more than 140,000 Nova Scotians unable to find a family doctor, over 5.5 times the amount since recording of the number began in 2017 (Kirk & Kimber, 2023). Premier Houston has taken various actions toward altering the health care system, but as of yet none have been able to halt, let alone reverse, the increase in shortages and wait times (Kirk & Kimber, 2023). Nova Scotia, being one of the least wealthy Canadian provinces, already tends to spend a disproportionately high percentage of its GDP on health care compared to other provinces and therefore has

relatively limited financial capacity in terms of new health care spending, imposing challenges on policy-makers who wish to take action (Fierlbeck, 2018).

Meanwhile, the Republic of Cuba, a much poorer jurisdiction than Nova Scotia, facing the historical set-backs of economic underdevelopment under Spanish colonialism and US neo-colonialism, and an extensive ongoing 63-year US economic blockade upon breaking from the latter, lacks many of the problems plaguing Nova Scotia's health care system. Cuba has by far the highest doctor-to-patient ratio in the world (approximately 9.4 per 1,000 residents versus Canada's 2.5) (World Health Organization, 2024b) and regularly sends their doctors abroad to other countries in need (Huish & Kirk, 2007). Although the country has a relatively low GDP both overall and per capita, its health outcomes have been on par with OECD countries. For decades, Cuba, outranked the United States in child mortality, life expectancy among other major health indicators. However, since the economic crisis related to COVID-19 unfolded, Cuba's impressive indicators have taken a turn with, for examples, infant mortality rates now highly exceeding that of the United States and other countries in the region. (Baggott, 2018, World Bank, 2024, United Nations, 2024).

Cuba's health care system traditionally displays impressive results in community-oriented care, health promotion and political commitment to healthcare (Dresang at al., 2005, Iatridis, 1990, Keck & Reed, 2012, Whiteford & Branch, 2008) while Nova Scotia funds public health well below recommended levels and struggles with physician retention and recruiting (Caldwell et al., 2021, , Macneill, Wardley & Odartey-Wellington, 2020). In the fall of 2023, the Nova Scotia government displayed its desire for cheap and cost-saving measures to help bring health care in the province up to more

adequate levels when it held a contest asking health care workers for “quick, easy, and low-cost” ideas to improve the health care system (Luck, 2024, para. 2). According to emergency physician and founder of PACEMD - Dr. Haywood Hall, “Cuba has proven that there is no correlation between health spending and patient outcomes” (Friesen, 2015, para. 11),. According to Dr. John Kirk (2023, para. 24, 25), Dr. Noni MacDonald, former dean of medicine at Dalhousie University, described Cuba’s health care by saying “long wait times are essentially unheard of” and Cuba “provides better care than the U.S. for about one-tenth of the cost” after a visit to Cuba as part of a Nova Scotian medical delegation (Kirk & Kimber, 2023). Unfortunately, Cuba’s economy is currently suffering due to a downward economic spiral initiated by the COVID-19 pandemic and compounded by external economic constraints and apparent government inability to prevent/resolve the crisis, which has adversely affected the health of its population and caused many Cubans, including health care professionals, to leave the country (Huish, 2024). However, the contrast between Nova Scotia (which is not subject to anything close to the same level of internal and external economic constraints) and pre-pandemic Cuba in their ability to produce and retain health care professionals, including Cuba’s ability to provide quality health care with few resources and at little cost, makes it an intriguing and worthwhile comparison to study further. While there is bountiful research on the successes of Cuba’s health care and the failures of Nova Scotia’s, there is an unfortunate lack of research or discussion comparing the two systems that display notably different outcomes in capacity-building and access. My research question, then, is ‘Can Cuba’s methods of building labour capacity and providing access to primary care provide solutions to Nova Scotia’s health care problems?’.

1.2 Purpose of Research

It is the goal of this research to answer the above question in order to compare Cuban strategies of health care worker capacity-building, and its relations to provision of primary care can, to that of Nova Scotia's own health care system. Improving these aspects of Nova Scotia's health care can save the lives and health of many people in Nova Scotia, especially for those from underserved and marginalized communities. This research will hopefully build on and revive the history of bi-lateral learning and cooperation between the two regions regarding health care policy. The findings and suggestions of this research can be of use to government agencies and/or advocacy groups to develop platforms for improvement of the Nova Scotia healthcare system in order to improve access to and quality of care for Nova Scotians and hopefully develop and strengthen solidarity and bi-lateral ties between Cuba and Nova Scotia to encourage further learning and cooperation.

2. Literature Review & Theoretical Framework

2.1 Nova Scotia

2.1.1 Overview

Nova Scotia is a province of eastern Canada with a population of roughly 1 million (Statistics Canada, 2023). Its capital and largest city is Halifax, which, as of 2021, held roughly 34.3% of the provincial population (Statistics Canada, 2022a). Around one half of people in the province live outside major population centres (Moody & O'Grady, 2022). While provincial health care systems in Canada have some similarity in how they are financed, provided and regulated, there are various degrees of reliance on federal funding and the provinces possess considerable autonomy in shaping their respective systems, with federal presence in regulating pharmaceuticals, assisted dying, assisted reproduction, and in conditions on which the federal government provides health care funding to the provinces (Fierlbeck, 2018).

Nova Scotia exhibited some of the poorest health indicators in the country in the past decade (Fierlbeck, 2018). Along with its fellow Atlantic Provinces, Nova Scotia has one of the poorest economies along with one of the poorest and oldest populations in Canada, giving it a less healthy population and fewer resources at its disposal to treat its residents, having the lowest GDP per capita of all Canadian provinces in 2023 (Fierlbeck, 2018, Government of Alberta, 2023). A 2024 report from the Canadian Centre for Policy Alternatives found that roughly one third of Nova Scotian workers earn less than $20 CAD per hour and that the province's minimum wage was the second lowest in the country, despite a relatively high cost of living (Saulnier & Thompson,

2024). As of 2018, Nova Scotia spent 46% of its budget on health care, the highest of all Canadian provinces (Fierlbeck, 2018.). In 2023, it spent the third highest per capita on health care of all provinces and territories (Canadian Institute for Health Information, 2023). The province also had the third highest percentage of population over 65 at 22.2% in 2020, and consistently higher unemployment rates than the national average, coupled with significant outmigration of young adults (Statistics Canada, 2022, Statistics Canada, 2023, Fierlbeck, 2018). In 2018, Nova Scotia had higher rates of arthritis, diabetes, high blood pressure, chronic obstructive pulmonary disease, heart attack, stroke, obesity, smoking, heavy drinking, non-consumption of fruits and vegetables, and new cases of cancer than Canadian averages (Fierlbeck, 2018).

As a preface, there have been significant changes in Nova Scotian health care since the COVID-19 pandemic. However, many of these recent changes are covered later on in the literature review.

2.1.2 Funding and Expenditure

The primary sources of revenue for the Nova Scotian government have traditionally been individual income tax, consumption taxes, and federal transfers (the last of which accounted for 30% of provincial revenue in 2015, down from 37% in 2000) (Fierlbeck, 2018). As a result of its weak economy by Canadian standards and population with increased health care needs, Nova Scotia tends to spend a much higher percentage of its GDP on healthcare. While the province spent about the same amount per capita on health care as Alberta ($6,761 in NS and $6,783 in AB) in 2014, health expenditure as a percentage of provincial GDP was roughly twice that of Alberta's (15.6% versus 8%) (Fierlbeck, 2018). Curiously, health and social assistance also makes

up a significant proportion of the province's GDP (10.4% in 2022) (Government of Nova Scotia, 2023). As of March 2023, Nova Scotia Health reported an annual budget of "$2.7+ billion" and that 68% of its expenses went toward compensation for staff, with the remaining 32% going to utilities and plant maintenance, medical and surgical supplies, pharmaceuticals, clinical research, and other costs respectively (Nova Scotia Health, 2023a, Nova Scotia Health, 2023b). The high expenditure on hospitals and low expenditure on public health indicates that the province's funding priorities are heavily geared toward "reactive" care – treating illness and injury once they manifest – rather than preventative health care which focuses on the prevention of injuries and illness before they occur. In the Nova Scotia Department of Health and Wellness budgets from 2015-2016 and 2019-2020, less than 1% of funding was annually budgeted for public health (Caldwell et al., 2021). While health care spending has increased since 2016, funding proportions to different services and programs remained unchanged (Caldwell et al., 2021).

2.1.3 Organization and Regulation

Health care in Canada is constitutionally a provincial responsibility and the federal government has historically played a less direct role involving setting and administering nation-wide health care principles, partially financing provincial systems, and more direct provision to First Nations reserve communities, Inuit, the military, eligible veterans, federal inmates, and some refugee claimants (Government of Canada, 2019). Through the 1957 federal Hospital Insurance and Diagnostic Services Act and the 1966 Medical Care Act, the federal government successfully persuaded Canadian provinces to adopt universal public insurance for hospital and physician services through

a commitment to reimburse provinces dollar-for-dollar for their provision (Government of Canada, 2019). Nova Scotia implemented universal hospital coverage in 1959 (coincidentally the same year as the triumph of the revolution in Cuba) and followed it ten years later with the introduction of public insurance for physician services – Maritime Medical Care – which was largely controlled by physicians, although this was not compulsory and mostly targeted toward the elderly (Fierlbeck, 2018). However, in 1968, the universal public Medical Services Insurance (MSI) plan was implemented following the 1964 Hall Commission Report (Fierlbeck, 2018). Maritime Medical Care was given a public status in order to continue the agency's oversight over the new public program (Fierlbeck, 2018). In 1989 the Medical Care Insurance Act and the Hospital Insurance Act were consolidated into the Health Services Insurance Act (Fierlbeck, 2018). 1998 saw the establishment of Emergency Medical Care (EMC) as a subsidiary of Maritime Medical Care to provide ambulance services and in the next year , 1999, Maritime Medicare Care and Blue Cross of Atlantic Canada merged to form Atlantic Blue Cross Care, later changing its name to Medavie Inc. (Fierlbeck, 2018).

The Health Authorities Act of 2014 formally lays out the organization of health care in Nova Scotia. Provincial health care governance in Canada is characterized by departments of health which delegate of the responsibility to use public health care funds to health care providers (Fierlbeck, 2018). However, this ran into an issue in the lack of physician incentive to ration health care resources, which provincial governments responded to by adoption of regionalized administrative structures from New Public Management Theory (Fierlbeck, 2018). However, all of Nova Scotia's Regional Health Authorities (RHAs) were amalgamated into one provincial health authority in 2015

(Fierlbeck, 2018). Currently, the province's Department of Health and Wellness (DHW) focuses on planning and priorities and the amalgamated Nova Scotia Health Authority (NSHA) manages day-to-day operations (Fierlbeck, 2018).

The NSHA oversees the province's health system aside from the IWK Health Centre for women and children, which is a separate corporate entity (Fierlbeck, 2018). Both the NSHA and the IWK respond to the DHW and the NSHA is run by a board of directors, (whose directors are appointed by the DHW) who oversee their president and CEO as well as those of the community health boards (Fierlbeck, 2018). The NSHA is divided into four regional "zones": Northern, Eastern, Western and Central, each with a medical executive director and an operations executive director (Nova Scotia Health, 2024b). Operations executive directors are responsible for the

> ...integration and coordination of care and service within and across health care zones; ensuring compliance with provincial policy and procedure; supervising sites and service areas within their respective zones; operating within the approved service plan and budget for each respective zone; and maintaining relationships with community stakeholders (Fierlbeck, 2018, pp. 31-32).

Vice presidential positions within the NSHA coordinate between zonal and NSHA management and between the NSHA and the IWK (Fierlbeck, 2018).

The two largest private sector actors in Nova Scotia's health care system are Medavie Blue Cross and the Health Association of Nova Scotia (HANS) (Fierlbeck, 2018). Medavie offers private insurance for health, dental, vision, travel, income replacement, and life insurance, but also administers Nova Scotia's Medical Services

Insurance (MSI), Pharmacare programs, and health card registration (Fierlbeck, 2018). Medavie's status is unique. It is a private company, but is contracted to be a part of a public body responsible for MSI administration along with the DHW (Fierlbeck, 2018). While it is a not-for-profit company itself, it is a parent company to several for-profit companies including the company that provides ambulance services to Nova Scotia – Medavie Health Services, and Medavie HealthEd, an education company that trains paramedics and other staff for the other company (Fierlbeck, 2018). There is considerable staff cross-over and migration between all the aforementioned private institutions and public health care institutions (Fierlbeck, 2018). HANS communicates and negotiates with health care unions and workers on behalf of the province, private long-term care facilities and home care providers and provides medical and dental insurance and pensions to NSHA and IWK workers (Fierlbeck, 2018). HANS also serves additional functions such as "biomedical engineering services, including assistance regarding the acquisition of medical equipment, the coordination of clinical trials, and the inspection, repair, and disposal of medical equipment" (Fierlbeck, 2018, p. 39).

2.1.4 Service and Provision

Nova Scotia Health oversees 96 collaborative family practices, nine regional hospitals, one specialty hospital, and approximately 150 "community and other locations (clinical, support and administrative)" (Nova Scotia Health, 2023a). The province established 35 walk-in clinics (24 of which were in Halifax Regional Municipality) after a 2011 report on primary care in the province, but the DHW indicated they wished to move away from walk-in clinics in favour of a medical-home model of health care. Nova Scotia saw a significant increase in the amount of collaborative care clinics, many of

which were in rural areas, between 2008 and 2011 but the increase plateaued after 2015 due to a decreased capacity to provide physician incentives in the 2015 Physician Master Agreement (Fierlbeck, 2018). A study by Coates (2019) found that these collaborative care clinics improved access to primary and emergency care in rural areas and reduced unplanned emergency department closures by 90-100%.

There are 37 hospital facilities in Nova Scotia with considerable diversity in size and functional capacity (Nova Scotia Health, 2024a). Emergency departments operate in 26 hospitals and there are collaborative emergency centres at 2, but many rural hospitals see periodic closures of emergency rooms due to staffing shortages (Nova Scotia Health, 2024a, Henderson, 2023, Petracek, 2023). Some acute care is only available at Halifax's Queen Elizabeth II Health Science Centre including advanced cardiac care, most internal medicine referrals and interventions, quaternary care (Fierlbeck, 2018).

Long term care facilities in Nova Scotia are privately-run but licensed and subsidized by the provincial Department of Seniors and Long-Term Care (Nova Scotia Health, 2024c). Pharmacare is also privately run in Nova Scotia; public coverage provided to seniors without private coverage, recipients of income assistance, and those needing treatment for certain diseases such as cancer, cystic fibrosis, diabetes insipidus and multiple sclerosis (Fierlbeck, 2018). The Provincial Drug Distribution Program procures drugs from national vendors and distributes them to the province's health care facilities (Fierlbeck, 2018). Dental care is also largely in private hands, however Nova Scotia has the Children's Oral Health Program which covers children within an eligible age range if they do not have private coverage or if private coverage does not cover the full amount (Government of Nova Scotia, n.d).

The DHW conducts what it calls Population Health Assessment and Surveillance (PHAS), which it claims provides the methods, tools, and human resources to support data, information and knowledge needs for public health programming (Government of Nova Scotia, 2021b). According to the DHW website, this work includes "[g]athering and analyzing qualitative and quantitative data to inform decisions, policies, and strategies, program evaluation and monitoring activities, addressing process, tool, and procedure issues related to quality data collection, and surveillance of public health issues" (Government of Nova Scotia, 2021b). The DHW published a Population Health Profile of Nova Scotia in 2015 with the purpose of providing a "snapshot" of the health status of the province's population, comparing Nova Scotia to the rest of Canada, and bringing attention to health status differences between biological sexes at different ages, levels of income, and levels of education (Government of Nova Scotia, 2021b).

2.1.5 Health Human Resources

Canada has faced a crisis in health care staffing since 1998, especially in remote and rural areas (Manchanda & Murphy, 2023). Canada's ratio of medical doctors in 2022 was roughly 2.5 per 1,000 people (World Health Organization, 2024b). This is roughly on par with that of Colombia (2.45) and relatively low compared to similarly developed countries 2021 ratios such as Australia's 3.9 and Germany's 4.5 and much lower than Cuba's 9.4 (World Health Organization, 2024b). At the same time, Canada was only producing 7.9 physician graduates per 100,000, thus Canada tends to heavily relies on internationally trained doctors (Fierlbeck, 2018). It is a challenge to attract doctors to rural areas for all provinces since growth in physician numbers has largely been confined to urban centres (Fierlbeck, 2018). Fleming and Sinnot (2018) found that there were over

4.6 million Canadians without a primary care physician in 2018 and that national physician shortages disproportionately affected rural areas. More than 20% of Canadians live in rural areas in 2018 but only 9.3% of physicians were practicing in rural areas (Fleming & Sinnot, 2018). For predominantly rural provinces such as Saskatchewan, Manitoba, and the Atlantic Provinces, the flight of doctors from rural to urban areas often manifests as interprovincial migration (Fleming & Sinnot, 2018). Canada has also been becoming more reliant on international medical graduates, which drains human resources from developing nations that often face higher rates and intensity of disease and injury (Fleming & Sinnot, 2018).

As of 2023, Nova Scotia Health reported 2,976 licensed physicians in the province of which 1,161 whose registered specialty is family medicine (Nova Scotia Health, 2023a). In September 2021 there were 178 doctor vacancies, and almost 1,400 for nurses, 450 for continuing care assistants, and 27 vacant permanent paramedic positions (Smith, 2021). Numbers of physicians are significantly concentrated in urban areas (especially Halifax) and there has been worrisome professional depopulation in rural areas of the province, especially Cape Breton Island (Fierlbeck, 2018). A 2012 report found that the family physician to specialist ratio in Nova Scotia was 42:58 and that nearly 60% of the province's physicians were practicing in Halifax, although, Halifax serves as the main point of tertiary and quaternary service provision for all four Atlantic provinces. Nova Scotia faces relatively high levels of physician outmigration and low renumeration levels, having had the second lowest level of average gross clinical payment to physicians in the country in 2022 ($297,977 compared to Alberta's $393,303) (Canadian Institute for Health Information, 2023). A 2021-2023 'physician

exit survey' conducted by the provincial Liberal Party revealed that 60% of respondents said that they left to pursue job opportunities elsewhere, with 27% having retired and 14% providing no reason for leaving (Thomas, 2024). Almost half of the respondents reportedly left the province due to dissatisfaction with their position (ibid.).

Forty-seven percent of practicing physicians in Nova Scotia in 2018 were graduates of Dalhousie Medical School, currently the province's only medical school , and 28.6% of Nova Scotian doctors were trained outside of Canada; the rest having been trained at other Canadian institutions (Fierlbeck, 2018).

On the topic of physician recruitment and retention, Macneill, Wardley & Odartey-Wellington (2020) interviewed six participants working in physician recruitment for the Eastern Zone of the NSHA and determined that the most significant obstacles faced in recruitment were "bureaucracy, a lack of clear communication channels, failure to track return on investment, a lack of community integration (including spousal employment supports) and a lack of clearly defined roles and responsibilities within the Eastern Zone". Li et al. (2023) state that the shortage of physicians in Canada as a whole is in part driven by "overbearing expectations of family physicians, limited support and resources, antiquated physician compensation, and high clinic operating cost" in addition to "the shortage of medical school and family medicine residency spots, which have not kept pace with population demand". Fierlbeck (2018, p. 95) states that Nova Scotia's primary barriers to efficient health human resource planning have been "the lack of sufficiently detailed information on which to base long-term planning; the lack of coordination between jurisdictions; and the utilization of

planning models that did not take into account the complexity of contemporary health care services".

As noted by Wenghofer & Ransom (2023), an adequate supply of family physicians is a critical dimension of accessible primary health care. These authors also found that there was a disparity in family physician access between the NSHA's Central Zone, which encompasses the capital city of Halifax, and the rest of the province, which is mostly rural (ibid.). It was concluded that GPs practicing outside of the Central Zone were less numerous, older, and more likely to be male or international medical graduates (ibid.). These conditions coincide with a higher potential demand for primary health care outside of the Central Zone due to lower physician-population ratios, higher rates of hospitalizations for ambulatory care-sensitive conditions, higher population aged 65 or older, living in rural areas, rating their health as fair or poor, and living in vulnerable or economically dependent situations (ibid.).

General practitioners (GPs) in Nova Scotia are legally independent contractors rather than public employees; their clinics considered to be small businesses (Fierlbeck, 2018). The nature of physician employment makes it difficult to implement proposed collaborative care clinics which incorporate wider ranges of health care professionals, increased patient contact and specialized care through family and advanced practice nurses, physiologists, nutritionists, etc. working with GPs (Fierlbeck, 2018). Because of their statuses as independent contractors with specialty expertise, physician associations have significant influence over Nova Scotia's health policy (Fierlbeck, 2018).

Nova Scotia has one medical school at Dalhousie University in Halifax. In March 2023, Premier Tim Houston announced $58.9 million in funding to develop a new

medical school at Cape Breton University in Sydney by fall 2025, expected to graduate 30 doctors per year, with the goal of ensuring health care access to rural Nova Scotians by training students coming from rural communities (The Canadian Press, 2023). An article published in June 2024 by Dalhousie University's Faculty of Medicine stated that 52% of Dalhousie medical students graduating in 2024 chose to begin their residency training in family medicine, up from 25% in 2018 (Gaffney, 2024). The school was able to fill all 91 of their residency seats – 21 of which were newly added for 2024 (Gaffney, 2024). The article attributes the increased percentage of family medicine residency pursuers to the school's Family Medicine Project Charter launched in 2018 which included:

> a two-week rural rotation based largely in family medicine was created; enhanced Longitudinal Integrated Clerkship (LIC) opportunities were offered; and career nights were organized for medical students to explore career options within family medicine. Efforts were also made to acknowledge and reward the contributions of family medicine residents and faculty
>
> (Gaffney, 2024, para. 5)

Paramedic education programs are offered through Medavie HealthEd in Dartmouth and through Holland College in the neighbouring province of Prince Edward Island (Government of Nova Scotia, 2021a). Medavie HealthEd offers an Advanced Care Paramedic Program through a combination of web-based classes and in-class practical simulation labs, a Primary Care Paramedic Program, and a Paramedic Refresher Program (Medavie HealthEd, 2017). Holland College offers programs in Advanced Care Paramedicine, Advanced Care Paramedicine – Distributed Learning, and Primary Care

Paramedicine (Holland College, 2023). As of the 2023-2024 academic year, tuition for these programs at Holland College with fees and other costs included in CAD were $15,389 per year, $11,255 (year 1) and $13,618 (year 2), and $13,097 (year 1) and $10,298 (year 2) respectively (Holland College, 2023a; Holland College, 2023b; Holland College, 2023c).

Paramedics in Nova Scotia display similar patterns of outmigration due to "[o]utside offers of better working conditions, increased benefits, and a better remuneration package" according to one union official interviewed by the Halifax Examiner in 2023, increasing the demand and workload of the paramedics who choose to stay (D'Entremont, 2023, para. 4). The union representative interviewed links this outmigration to emergency department closures which produce increased strain on paramedics alongside staffing shortage of nurses once they arrive to whatever ER is open, leaving them to look after patients for longer (D'Entremont, 2023). According to the DHW website at the time of writing in September 2023, there are approximately 1,000 paramedics registered in Nova Scotia, meaning a ratio of roughly 1 paramedic for every 1,000 residents, given Nova Scotia's current population of approximately 1 million. However, the Halifax Examiner reported 884 active paramedics in the province in July 2023, of which seventy are over the age of 55, with almost 200 off work for medical reasons, an increasing amount of which are operational stress injuries (D'Entremont, 2023).

2.1.6 Emergency Medical Services

Emergency medicine is a significant factor to consider regarding access to health care and capacity-building in Nova Scotia. Ambulance services in the province are

plagued by long response times in both urban and rural areas. Auditor general Kim Adair attributed the poor response times to staffing shortages, temporary closures of emergency departments causing a need to divert patients to larger hospitals, and an increase in 911 calls requiring an ambulance ('Nova Scotia Ambulance Service Plagued by Continuing Poor Response Times', 2023). This means that timely access to emergency care is connected to understaffing in both paramedics and emergency departments and therefore is an important issue in terms of both health care access and capacity-building.

Paramedicine is provided through Emergency Health Services (EHS) in Nova Scotia. According to the Province of Nova Scotia's Department of Health and Wellness website, Nova Scotian paramedics respond to health emergencies, work in Collaborative Emergency Centres, provide health care to nursing homes in Halifax Regional Municipality (HRM), and take on a leadership role in their community (Government of Nova Scotia, 2021a).

EHS responds to emergencies via ground ambulance and Life Flight helicopter and fixed-wing aircraft (Government of Nova Scotia, 2021; MacInnis, 2023). As of 2023, the provincial EHS has two fixed-wing aircraft and two helicopters dedicated to critical care (MacInnis, 2023). Tim Houston's Progressive Conservative government added one of the aircraft as a recent addition in the summer of 2023 with the purpose of transporting patients from the geographical extremities of the province in Yarmouth and Sydney to Halifax, a distance that would take approximately five hours by ground ambulance (MacInnis, 2023). Crews of paramedics are dispatched through the EHS communications centre in Burnside, HRM and crews consist of two paramedics who are

based in locations throughout the province according to historic call volumes (Government of Nova Scotia, 2021a).

In Canada, ground ambulance fees are a non-insured service under the Canada Health Act and therefore subsidization and fees for ground ambulance services are left up to the provinces (Government of Nova Scotia, 2021a). Nova Scotia covers the cost of ambulatory transportation between approved facilities (hospitals) for Nova Scotia residents with a valid health card but otherwise a fee is charged (Government of Nova Scotia, 2021a). The province provides an application to have the fee waived or a repayment schedule if one is facing financial hardship (Government of Nova Scotia, 2021a). The chart below shows ambulance fees for different circumstances in Nova Scotia:

Table 1 Ambulance Fees by Circumstance

Government of Nova Scotia, 2021.

Medically Essential Transportation	Inter-facility Transportation	
Nova Scotians with a valid health card (Other than third party insured services)	$146.55	$0.00
Non-Nova Scotians, Canadian Citizens	$732.95	$0.00
Non-Canadians & New Canadians	$1,099.35	$1,099.35
People who are defined as third party insured (This includes people in an MVC, covered by Worker's Compensation, or the federal government.)	$732.95	$732.95
Nova Scotians who are mobility-challenged where transport begins or ends at their place of residence and is transported to or from a considered medical appointment (does not include emergent transports)	$108.95	N/A

Medically Essential Transportation	Inter-facility Transportation	
Fee to transport to and from a hospital for residents of approved long-term care and residential care facilities	$54.50	$0.00

According to a paramedic interviewed by Global News (January 4, 2023b), EHS services are increasingly being called in place of primary health care due to lack of regular access to the latter. In July, 2023, the Halifax Examiner reported that emergency department closures, staffing and retention issues, and ambulance offload delays are making working conditions unbearable for paramedics in the province (D'Entremont, 2023).

The position of emergency medical responder (EMR) is a new role initiated by the province whose purpose is to work alongside paramedics to assess, stabilize and transport patients to hospital or provide support in emergency department offload areas (*Free Tuition for Paramedics, emergency medical responders*, 2024). As of June 2024, there were 14 EMRs and 692 paramedics working in Nova Scotia, with plans to train up to 200 EMRs in the following two years (ibid.).

On June 28, 2024, the province of Nova Scotia announced that it will cover the full cost of tuition for over 460 people who wish to become primary care paramedics or emergency medical responders in return for working within the province for four years for paramedics and for two years for EMRs (ibid.).

2.1.7 Changes Since COVID-19

In many ways, the COVID-19 Pandemic which began in 2020 has marked a number of quite significant changes to the structure and state of health care in Nova Scotia as well as the broader economic and political situation of the province, which in turn, has had an impact on the delivery of health care. These changes and their impacts on the province's health care system will be discussed below.

Firstly, the COVID-19 Pandemic not only forced the current Liberal provincial government to bold new measures in order to try to contain the health emergency, but also significantly affected much of the province's health statistics.

Nova Scotia saw it's largest yearly population growth on record since 1951 since the pandemic, driven largely by international and interprovincial migration to the province (Willick, 2023). The boom in population was relatively sudden and came after approximately two decades of demographic decline in the province (Willick, 2023). In 2019, the province's population was approximately 960,000 and by April 2023 it had jumped to 1.05 million (Willick, 2023). While the increase in population was accompanied by economic growth, it has also put a strain on the already overburdened health care system, as well as the housing market in both rentals and ownerships (Willick, 2023)

The pandemic saw a number of changes to health care structuring in Nova Scotia. According to Breton et al. (2022), the pandemic accelerated the implementation of four organizational innovations - centralized public online booking systems, centralized access centers for unattached patients, interim primary care clinics for unattached

patients, and a community connector to health and social services for older adults. It also resulted in two new innovations – COVID-19 hotlines and COVID-dedicated primary health care clinics (ibid.).

Lastly, 2021 saw the election of a new Progressive Conservative government in Nova Scotia, which has since enacted numerous reforms and changes to the health care system. These changes include expanding nursing and medical residency seats, beginning work on a new medical school at Cape Breton University, expanding the scope of practice for nurses, pharmacists and paramedics, hiring physician assistants onto health care teams, new contracts with nurses and doctors, monetary incentives for nurses to stay in-province, easing requirements for some internationally trained doctors to practice in Nova Scotia, adding two Life Flight helicopters for critical care, waiving tuition fees for paramedicine graduates who sign contracts to work in the province for a period of time after graduation, and establishing more collaborative care centres (Gorman, 2023, Laroche, 2023, MacInnis, 2023, The Canadian Press, 2023).

2.2 Cuba

2.2.1 Overview

In order to make sense of the Cuban health care system and compare it to Nova Scotia's, it is important to understand the context in which Cuba's health care system exists – including the geographical, historical and economic setting. Cuba is an island nation in the Caribbean with a population of slightly under 11 million (Central Intelligence Agency, 2023). It was a strategically important colony of the Spanish

Empire and one of its longest-held possessions. After a war of independence against Spain aided by the US, it became economically and politically dominated by the latter. The Revolution of 1959 overthrew a US-backed dictatorship and eventually established a socialist government in its place. Cuba's economy is mostly centrally-planned and publicly owned as opposed to market-based and in private hands. The country is under a trade embargo from the United States which prevents Cuba from importing many necessities and from gaining income from trade. Having been heavily dependent on economic ties with the Eastern Bloc, its economy suffered drastically after the dissolution of the Soviet Union as imports of food, oil into Cuba and exports out of Cuba fell drastically resulting in the Cuban economy shrinking by over a third over the course of four years after 1989 (Baggott, 2018). The dire straits Cuba found itself in between the collapse of its major trading partners and US embargo forced it to be extremely resourceful in its tourism and health sectors (Baggott, 2018). Although Cuba was ranked 127th in the world by GDP per capita in 2018, its health outcomes were comparable to OECD countries and it outperformed the United States in infant mortality rates and life expectancy, although these figures have changed as of late due to the country's economic crisis following the COVID-19 pandemic, for example - falling over 2 years behind the US in life expectancy (Baggott, 2018, World Health Organization, 2024a).

Like Nova Scotia, Cuba also saw significant changes to its economy and society following the COVID-19 pandemic, although the changes experienced by Cuba were much more harmful to the country and its people. Since the pandemic, Cuba has been plagued by inflation, shortages, outmigration (including of many health care personnel),

and elevated political unrest (Huish, 2024). These changes will be discussed further below.

2.2.1.2 History of the Health Care System

Pre-revolutionary Cuba had impressive health care standards for those who could access and afford it. While the health care system was relatively effective in treating patients, access to it was severely limited to only the rich and white of Havana and foreign tourists (Warman, 2001).

The dissolution of the Soviet Union and other socialist governments in Eastern Europe combined with simultaneous tightening of US sanctions resulted in an economic crisis in Cuba dubbed the "Special Period". This period saw Cuba's economy contract by 30% and severely limited access to vast assortments of foreign commodities, correlated to a serious increase of infectious diseases, (Cooper, Kennelly & Ordunez-Garcia, 2006).

2.2.2 Understanding the US Embargo

A general understanding of any aspect of Cuban society, politics and/or economy – especially Cuban health care - requires an understanding of the economic embargo against Cuba by the United States, how it operates, and what its impacts are.

The motivations for US policy towards Cuba since the 1959 revolution are outlined in a 1960 memorandum written by US Deputy Assistant Secretary of State for Inter-American Affairs - Lester Mallory (Yaffe, 2021). In it, Mallory (1960) outlines the popular support for the new Castro government, the lack of effective political opposition, the significant communist influence within the new government, that military opposition

from outside Cuba would only strengthen the new government's support, and that therefore the "only foreseeable means of alienating internal support is through disenchantment and disaffection based on economic dissatisfaction and hardship". The memorandum goes on to say that "every possible means should be undertaken promptly to weaken the economic life of Cuba" and recommends action towards "denying money and supplies to Cuba, to decrease monetary and real wages, to bring about hunger, desperation and overthrow of government" (Mallory, 1960).

The US embargo against Cuba, commonly known as *el bloqueo* – "the blockade" within Cuba, comprises a series of ongoing US measures against the Cuban economy and state beginning in 1961, making it the longest embargo in modern history (Garfield & Santana, 1997). Although the embargo cuts off almost all trade with a large and geographically proximate economy for Cuba – the United States, the impact of the embargo was initially minimal due to Soviet assistance and trade with the Eastern Bloc (ibid.). From the 1960s to 1989, 70-90% of Cuba's trade was with Eastern Bloc countries (ibid.). When the communist governments in Eastern Europe fell, Cuba saw a 60% decline in gross domestic product (ibid.). Since then, the US embargo has had a much more significant impact on the country. This was compounded by the effects of the US strengthening the embargo in 1992 with the passing of the Cuban Democracy Act (ibid.). Since then, all trade with even subsidiaries of US companies, including trade in food and medicine and any ship from another country that docks at a Cuban port is barred from entering any US ports for 180 days after (ibid.).

The effects of the embargo on the health of Cubans is substantial. According to Garfield and Santana (1997), food imports to Cuba declined by approximately 50%

between 1989 and 1993 and per capita protein and calorie availability dropped by 25% and 18% respectively between 1989 and 1992, resulting in high increases in undernutrition. The general lack of nutrition and economic decline caused increased rates in a multitude of health issues including access to drinking water, tuberculosis, hygiene-related issues, death rates from common diseases and injuries, and infant mortality. Although imports of medicines and medical supplies were mostly exempt from the embargo up until this point, they became much more restricted upon passage of the Cuban Democracy Act by the United States in 1992 as Cuba was already in economic crisis, causing shortages in many essential medicines and supplies that are produced only by US firms (Garfield & Santana, 1997, Kirkpatrick, 1996). According to the Cuban ambassador to Canada, Josefina Vidal Ferreiro, "if more than 10 percent of the components in the medical equipment or medications we want to buy are of US origin, then Cuba is not allowed to purchase them." (Vidal Ferreiro, 2020, para. 19).

> These include the only curative treatment for some pediatric leukemias, film for some specialized x-ray machines used for breast cancer detection, US-made components of European respirators, and Spanish-language medical books from a firm recently bought by a US conglomerate. The only major non-US pacemaker manufacturer in the world was sold to a US firm in 1994. The sale included a clause that specified that, henceforth, sales to Cuba would no longer be guaranteed.
>
> (Garfield & Santana, 1997, p. 18)

2.2.3 Funding and Expenditure

Health care in Cuba is publicly funded via the state. Cuba's constitution and Public Health Law states that "Health care is a right, available to all equally and free of charge, health care is the responsibility of the state, preventative and curative services are integrated, the public participates in the health system's development and functioning, health care activities are integrated with economic and social development, global health cooperation is a fundamental obligation of the health system and its professionals" (Keck & Reed, 2012). In 1998, the annual expenditure on public health as a percentage of total national health expenditure was 87.6% and annual total health expenditure as a proportion of GDP was 6.4% and in 2021 it was 13.79% (Gutierrez et al., 2003, World Bank, 2024). As of 2017, Cuba spent much less on public health care per capita ($817) than Canada ($5,292) or the United States ($9,403) (Kirk, 2017).

2.2.4 Organization and Regulation

Cuba has a national health system that is completely public, universal and free and is overseen and managed by the Ministry of Public Health (Gutierrez et al., 2003). Health care is guaranteed in Article 50 of the Cuban constitution and state-regulated in Cuba (Kirk, 2017). Health institutions are guided methodologically by the Ministry of Public Health and supervised by community, municipal, provincial and national governments based on the respective jurisdiction of an institution (Keck & Reed, 2012). Municipal health directors are important figures within municipal authorities; able to influence policies concerning health and national health programs and objectives (Baggott, 2018). These objectives and programs are often cross-governmental and taken up by other ministries in conjunction with the Ministry of Public Health such as health

programs for the education sector implemented by the Ministry of Education (Baggott, 2018). However, municipal and provincial health directorates are subordinate to provincial and municipal governments from whom they receive their budget, supplies, labour and maintenance (Dominguez-Alonso & Zacca, 2011). Policies, principles and procedures are centrally developed but with room for local flexibilities based on neighbourhood diagnoses (Keck & Reed, 2012). These diagnoses are key to establishing localized work priorities via Ministry guidelines (Keck & Reed, 2012). However, family doctors and nurse teams are also supported and evaluated by community members through Popular Councils, the most grassroots level of Cuban government (Keck & Reed, 2012).

According to Baggott (2018), mass organizations such as women's and workers' committees and unions, as well as Committees for the Defence of the Revolution, are very involved in health care matters by way of raising issues, holding accountability, and mobilization of public health programs. Popular Councils also exist at municipal, provincial and national levels and allow citizens to express concerns, holding meetings between constituents and delegates who then report back to authorities (Baggott, 2018). According to Baggott (2018), considerable influence is exerted by representatives of mass organizations regarding local health matters including the removal of unpopular doctors and polyclinic teams regularly take surveys to receive feedback from their patients.

Data collection is vigorous in Cuba's health system. Family doctors send weekly reports to polyclinics which then send synthesized reports to the Ministry of Public Health, therefore alerting the Ministry of certain pathologies active in certain locales,

allowing them to direct resources and campaign efforts to these areas and prevent further spread (Kirk, 2017).

2.2.5 Service and Provision

Health care services in Cuba are publicly provided. Almost all facilities are government-owned and operated and almost all professionals are employed by the government. The Cuban population is entitled to free preventative, curative, and rehabilitation services ranging from primary care, routine medical attention, dentistry and hospital care (Gutierrez et al., 2003).

Along with an emphasis on primary care, prevention is a key focus of the Cuban health system. This includes targeting of socioeconomic and environmental factors and determinants of health outcome such as employment, education, transport, poverty, housing, sanitation, nutrition and lifestyle and also incorporating high vaccination rates into its preventative focus (Baggott, 2018). According to Kirk (2017, para. 6), patients in Cuba are treated as "bio-psycho-social beings", taking physical health, mental condition, and surrounding work and home environments into account. The Cuban model emphasizes primary care and prevention, especially regular check-ups based on belief that prevention is both better medicine and more cost-effective (Baggott, 2018; Kirk, 2017; Vela-Valdés et al., 2018).

Primary care is most often provided in neighbourhood clinics (*consultarios*) which address approximately 80% of health needs and serve as a base of health promotion (Dresang et al., 2005). Family doctors and the nurses they work with typically serve close to 600 patients or 150 families in a designated area surrounding their clinic

(Dresang et al., 2005). Cuban family physicians typically spend their mornings seeing patients in the clinic (which is most often adjoined to their personal residence) and spend the afternoons visiting acute care and rehabilitating patients in their homes (Dresang et al., 2005; Kirk, 2017). These physicians also take on prominent roles in their communities through leading health-improvement campaigns and working with schools, factories and mass-organizations to promote health standards (Kirk, 2017).

Secondary care takes place in community-based polyclinics that contain X-ray and ultrasound utilities and employ a variety of specialists: obstetrics, gynecologists, pediatricians, internists, dentists, physical therapists and sometimes cardiologists, pulmonologists, ophthalmologists, neurologists, endocrinologists, dermatologists and psychiatrists) working in teams along with nurses and family doctors in as many communities as possible in order to provide comprehensive care to residents where they lived (Keck & Reed, 2012; Baggott, 2018; Dresang et al., 2005; Kirk, 2017). There were 450 polyclinics in Cuba in 2022 with each typically serving around 30-40 primary care clinics and 30,000-50,000 patients (Oficina Nacional de Estadística e Información, 2022b, Dresang et al., 2005; Kirk, 2017). These institutions are the first line of specialty service provision and also offer laboratory testing, diagnostic procedures, dentistry and rehabilitation services (Keck & Reed, 2012). They operate at municipal levels and carry out many of the functions carried out by hospitals in other countries but have no live-in patients, with at most four to six day-use beds (Anderson, 2006). It is not uncommon for family doctors from primary care clinics to join patients for speciality appointments at polyclinics (Dresang et al., 2005). Additionally, polyclinics are used as teaching

hospitals for medical, nursing and health science students (Kirk, 2017). Follow-ups for specialized treatment are often available within days or hours to patients (Kirk, 2017).

Municipal hospitals form the tertiary service provision sites, including tertiary care specialty hospitals at provincial levels and 14 research and specialty field-specific clinical care institutes. Each province has at least 1 general hospital, but most have more than 1 of each (Oficina Nacional de Estadística e Información, 2022b). Thirteen out of 17 provinces have at least one pediatric hospital and 4 have maternity hospitals (ibid.). According to Warman (2001, p. 314), family doctors often go "with the individual to hospital and providing a full history in person. They also liaise with the hospital's health education workers who bring the breast screening and cervical cancer mobile units to their barrio (neighbourhood)".

Cuba has a history of large-scale mobilization of public health campaigns. In 1981, Cuba commenced a campaign of community organization upon the introduction of dengue in the country which focused on eliminating mosquito breeding sites and was met with success in controlling spread of the disease (Cooper, Kennelly & Ordunez-Garcia, 2006). In 1987 , the country conducted a nation-wide screening program for HIV/AIDS which reached 80% of the sexually-active population and identified 268 positive cases (Cooper, Kennelly & Ordunez-Garcia, 2006). While the later quarantining of infected individuals was controversial and criticized, the patients received supplemental nutrition and medical care and HIV/AIDS treatment is now provided in an outpatient setting and the HIV/AIDS rate is now the lowest in the Americas (Cooper, Kennelly & Ordunez-Garcia, 2006; Farmer, 2005).

2.2.6 Health Human Resources

When addressing the first graduating class of the Latin American School of Medicine in 2005, Fidel Castro exclaimed:

> What is the secret of our system? It comes down to the basic fact that human capital is worth far more than financial capital. Human capital is based not only upon knowledge but also—and of particular importance—*conciencia,* a sense of ethics, solidarity, truly human feelings, a spirit of sacrifice, heroism, and the ability to do a lot with scarce resources. (Kirk, 2017, para. 17)

In 1959, pre-revolution Cuba had roughly 6,000 physicians of which many had left the country (primarily to the United States),there was one faculty of medicine in Havana of which most of the professors also left after the revolution (Kirk, 2017). The Cuban government then enacted its *Plan Aceleración* – which involved providing a number of highschool students the opportunity for intensive training to qualify as physicians within a condensed timeframe with similar initiatives for the training of nurses (Warman, 2001). As of 2017, Cuba had 21 teaching hospitals and, as of 2022, 79,569 nurses and 94,066 physicians, 22,774 of which were family doctors with a ratio of 105 patients per doctor (Oficina Nacional de Estadística e Información, 2022b). However, these numbers are a marked decrease from 2021 where the country had 106,131 physicians and 86,983 nurses, most likely due to the high levels of outmigration caused by the economic crisis following COVID-19 discussed in further detail below.

Cuba supplies large quantities of doctors internationally (Baggott, 2018; Cooper et al., 2006; Huish & Kirk, 2007). The export of doctors provided the Cuban government with over $8 billion USD annually as of 2017, but the government reported only about $4.9 billion from "human health services and social care services in 2022 (Kirk, 2017, Oficina Nacional de Estadística e Información, 2022c). The country also established the aforementioned Latin American School of Medicine (ELAM) in 1999 which has no tuition costs for the majority of students and attracts students worldwide with a focus on low- and middle-income countries, and also established medical schools in other countries in Africa and Latin America (Baggott, 2018). As of 2017, approximately one quarter of Cuba's total number of doctors were working overseas in more than 60 countries worldwide (Kirk, 2017). In 2024, Cuba's state newspaper *Granma* reported over 22,600 Cubans working overseas as part of the country's medical internationalism operations in 54 brigades, although this is less than half the number estimated to have been working abroad in 2015 (Barbosa León, 2024, Karra, 2021).

Cuba's network of higher medical education was instituted under the Ministry of Public Health with its methodology governed by the Ministry of Higher Education (Vela-Valdés et al., 2018). As of 2018, the country had "13 medical science universities which include 23 medical schools, four dental schools, one nursing school, one health professions school, three nursing and allied health professions schools, and 15 medical science affiliates offering only the clinical-epidemiological years of coursework in each health profession, plus two independent medical schools" (Vela-Valdés et al., 2018, p. 2). In addition, there is the Latin American School of Medicine which trains international students and the National School of Public Health which "develops human capital in

public health through postgraduate training, such as doctoral programs, specializations, master's degree programs and other organizational teaching modes" (Vela-Valdés et al., 2018, p. 2). Each school is connected with accredited health care institutions where parts of instruction take place for students to learn in real situations (Vela-Valdés et al., 2018).

Medical school (along with all other post-secondary education) is free for Cuban students, who also receive a stipend (Baggott, 2018). There is effort made to attract students from underserved and poor Cuban communities and international students from lower-income countries typically study for free with financial support, but all graduates are expected to practice for two years in underserved communities chosen by the government upon graduation (Baggott, 2018; Kirk, 2017). According to Warman (2001, p. 315), doctors in Cuba are selected "on the basis of their character, attitudes, and commitment to 'revolutionary ideals' as well as their grades". Medical training in Cuban institutions emphasizes interaction with communities, social determinants of health, epidemiology, primary care, and prevention and doctors are expected and encouraged to be role models for their communities (Baggott, 2018; Huish, 2008; Warman, 2001). The basic medical program is six years long and specialization takes several years more (Kirk, 2017). Approximately 350,000 health professionals have graduated in Cuba since 1959 and in the 2016-2017 academic year there were 76,000 students enrolled in health-related higher education, of these, there were 60,098 enrolled in medicine and 3,763 enrolled in a bachelor's degree in nursing (Vela-Valdés et al., 2018). There were 15,498 medical science higher education graduates in the 2020-2021 academic year (Oficina Nacional de Estadística e Información, 2022a). According to Vela-Valdés et al. (2018), the most prominent principles on which health education is founded on in Cuba are:

integration of education, health care and research in the national health system, a scientific educational process, a systemic approach to instruction, linking theory to practice, and workplace learning. Curricula for medical students is health-oriented as opposed to disease-oriented and centres around the health of individuals, families, communities and environments, while analyzing individual and community health problems with a biopsychosocial perspective (Vela-Valdés et al., 2018).

Every graduate of the aforementioned medical institutions immediately receives a job placement and employment contract (Vela-Valdés et al., 2018). Upon graduation, physicians must first work in primary care before specializing (Baggott, 2018). As of 2022, around 22,774 of the nation's 94,066 doctors were practicing in family medicine (Oficina Nacional de Estadística e Información, 2022b). These family doctors' duties include promoting health, preventing illness, providing early diagnoses, and attending to the general needs of the families they serve (Anderson, 2006). Doctors in Cuba received salaries between $80-$120 USD in 2017, which were four times higher than the Cuban average but well below what Cubans often make in the tourist industry or through self-employment (Kirk, 2017). Spain-based news platform CiberCuba stated that the salaries for newly graduated Cuban doctors were 4,610 pesos per month and 5,060 pesos after residency (CiberCuba, 2024a).

Cuba's approach to medical education is focused on improving public health care services to vulnerable communities rather than focusing on the individual careers and upward mobility of their medical students, as is often the paradigm of medical schools elsewhere (Huish, 2009, Huish & Kirk, 2007). The aforementioned Latin American School of Medicine specifically targets people from poor, marginalized and vulnerable

communities, who have a desire to serve their communities, in their recruitment and those who demonstrate willingness to work among under-served communities upon graduation are likely to receive a scholarship, on top of the already-free tuition (Huish, 2009, Huish & Kirk, 2007). Medical students in Cuba study a curriculum centred on health promotion, social determinants of health, and prevention, alongside clinical skills and includes some amount of study of scientifically-tested low-cost and accessible traditional and natural medicine (Huish, 2009, Huish & Kirk, 2007).

2.2.7 Emergency Medical Services

Limited academic publication is available on Emergency Medical Services (EMS) and paramedicine in Cuba in either English or Spanish (including on government websites such as ONEI) and I was not fortunate enough to observe any aspect of the EMS system during my time in Cuba. However, American paramedic and public health specialist Jason Friesen provides insight into Cuba's EMS system and condition in a 2015 article written in EMSWorld magazine (Friesen, 2015, para. 8). According to Friesen (2015), Cuba's limited ability to import advanced medical equipment, including ambulances, due to the US embargo has led to a more intense focus on prevention of premature death and disability through strong community-based health care, "militant" public health messaging, and "judicious" use of the limited resources available. Friesen (2015, para. 11) claims that Cuba aims to ensure that emergencies which cannot be prevented are "brought to local hospitals by bystanders and other community members in a timely fashion", although he does not go into further detail.

The Base Nacional de Urgencias Médicas (BNUM) in downtown Havana is Cuba's hub for ambulatory services and provides coordination and dispatching of patient

referrals across the island as both the national call centre and fleet station (Friesen, 2015). According to Friesen (2015, para. 14) upon his visit to the BNUM, he observed "several German-made ambulances capable of transporting most patients, conditions and equipment" (much of it having been donated), ventilators, EKGs and IV drips which would be considered outdated in high-income countries but are well maintained as the 1950s-model cars on Cuban streets. The BNUM also serves as the centre of training for paramedics of all levels and specialties for the Havana area (Friesen, 2015).

In short, Friesen (2015) concludes that Cuba's EMS system is impressive in comparison to other developing countries and given their limited material resources and that the main setbacks it faces are financial and material. However, the article is dated by approximately nine years and information provided may have since changed. A 2023 article from *14ymedio* translated by *Translating Cuba* reported that the country had imported 99 new ambulances in 2023 at an approximate cost of four million US dollars, paid by the government in full, with each province receiving 3-4 ambulances (Avany, 2023).

2.2.8 Changes Since COVID-19

If COVID-19 had a significant impact on Nova Scotia and it's health care situation, it pales in comparison to the impact the pandemic has had on Cuba. The nation continues to suffer from the economic impact of COVID-19 and its concurrent political events and, as a result, saw notable political, cultural and health changes as well.

Firstly, the COVID-19 pandemic was one of the first major domestic challenges faced by current Cuban president Miguel Díaz-Canel, who first assumed leadership of

the country in April 2018 as President of the Council of State and Council of Ministers, later assuming the newly recreated office of President of the Republic of Cuba in October 2019 (as a result of a constitutional change in the same year) as well as the office of First Secretary of the Communist Party in April 2021 (Associated Press, 2018; Havana Times, 2018). Díaz-Canel's assumption of these offices marked a new chapter in Cuba's post-revolutionary history, with him being the first leader of the country to not be a member of the Castro family since 1959 as well as the first Cuban president to be born after the 1959 triumph of the Cuban revolution (Associated Press, 2018; Hoffman, 2021).

Cuba's initial response to the pandemic was largely effective. Strategies employed included "nationwide door-to-door active screening for individuals with fever and/or symptoms of respiratory distress, isolation of cases and quarantine of contacts of confirmed cases and of persons suspected of having the virus" (Galbán-García & Más-Bermejo, 2021, p. 29). This initial response was successful in "flattening the curve" and limiting transmission of the virus, keeping COVID-19 "at bay for most of 2020" (ibid., Burki, 2021, p.465). Cuba also sent roughly 2,300 emergency medicine physicians to aid 24 countries during the start of the pandemic (Charlton, 2020). In October 2020, Cuba's success at containing the virus lead a Halifax-based travel company proposed an offer of two week-long trips to Cuba in winter 2021 restricted to residents of Atlantic Canada "bubble" to stay at a designated resort in Cayo Coco in which only Atlantic Canadians would stay (Moore & Van Horne, 2020). However, this did not result in Cuba integrating into the "Atlantic bubble", as Nova Scotia's chief medical officer of health stressed that

the federal 14-day isolation policy would still apply to travellers returning to Atlantic Canada from Cuba (Moore & Van Horne, 2020).

Despite initial success at containing the spread of the virus, the pandemic dealt a massive detrimental hit to Cuba's tourism industry, on which the island heavily relies on for national income (Hoffman, 2021, Bastian, 2023). The condition Cuba found itself in coming out of the fall of the Soviet Union and the Special Period of the 1990s, led to tension in the government between adaptation to the global economy by way of market reforms and a heavy investment in tourism or sticking to more rigid socialist principles, with the government eventually allowing for some market reforms and a large investment in the tourism industry (Clausen & García, 2020). This reliance on tourism, while adopted under restricting external realities and dire economic desperation, meant that the pandemic took an even heavier economic toll on the island than it would have without reliance on such a pandemic-prone industry.

In an effort to counter the economic effects of the downturn in tourism, Cuba eased some of its travel restrictions in order to encourage Cuban Americans to return to the island for vacation and generate some more revenue to the Cuban economy. Unfortunately, this plan backfired and resulted in significant spread of COVID-19 across the country. A wave of infections from a new virus variant dealt a heavy blow to the health care system (Bastian, 2023).

To make matters worse for Cuba, US president Donald Trump further crippled Cuba's capacity to engage in any international financial activity by imposing a series of new sanctions on the country, as well as re-instating Cuba onto the United State's "state sponsors of terrorism" list on his way out of office – citing their support of Nicolas

Maduro's government in Venezuela (BBC, 2021), actions which current president Joe Biden has yet to repeal since taking office in January 2021 (Leogrande & Hershberg, 2023, Morris, 2024). According to the Washington Office on Latin America, Cuba's listing on the "state sponsor of terrorism" list creates additional barriers/risks to delivering humanitarian aid, doing business with/in the country for banks, corporations and investors, and conducting academic exchanges with Cuba (Venancio & Bare, 2023). The compounding US sanctions and embargo against Cuba has resulted in great difficulty for the country in accessing ventilators and other life-saving equipment such as pharmaceuticals throughout the pandemic and continuing to the present (Pineo, Shaver, Creel & Pritchard, 2023, Morris, 2024).

An article written for medicine-sourcing institution iEthico (2022), Cuba's shortage of medicine can be attributed first to the US embargo limiting their ability to import raw materials and finished products, second to limited government funding to pharmaceuticals, and lastly to unaffordable prices of pharmaceuticals for many Cubans, and therefore suggest strengthening trade relationships with other countries and increasing investment into pharmaceuticals. Cuba's domestic pharmaceutical industry produces (401) 62% of the current 651 products on the basic list of medications, with the remaining being imported. Of this list, 292 are available for sale in pharmacies (CiberCuba, 2024b). BioCubaFarma, Cuba's pharmaceuticals producer, claims that it supplies 395 medicines to the public health system as of June 2024 and that of these, 242 were in short supply, citing unavailability of raw materials, finished products, and materials as causes (BioCubaFarma, 2024). Cuba's Minister of Public Health admitted that although sometimes medicines are in Cuba, "we fail to make them available in a

timely manner, not only due to fuel and transportation, but also because the personnel of other institutions that provide services to us are affected." (CiberCuba, 2024b).

As a response to the emergency economic crisis, the Cuban government enacted controversial monetary reform in 2021 when they eliminated the convertible peso, leaving the Cuban peso as the sole currency (Segrera, 2021). The goals of the reform were to begin long-term processes of aligning Cuban prices with global markets, incentivizing economic restructuring and innovation, stimulating exports, and reduce reliance on imported goods (Morris, 2024). However, the elevated cost of goods as a result outpaced the increased wages implemented by the government alongside the reforms (ibid.). According to Segrera, 2021, these measures were not discussed with the general population, as is done in the country with other reforms such as the constitutional reforms in 2019 (Frank & Acosta, 2019). Some economists have linked the management of this reform to increased inflation in the country (Vidal & Luis, 2023).

In what was expected to be a year of recovery from the pandemic for Cuba, 2022 saw two large-scale industrial disasters, a destructive Category 4 hurricane, increased international prices of food and fuel attributed to the war in Ukraine and a weaker-than-expected recovery in the tourism sector (Leogrande & Hershberg, 2023). Cuban wages largely failed to keep up with inflation, which simultaneously caused increased shortages, power outages, black market activity and therefore political unrest (Huish, 2024, Morris, 2024). The economic crisis, especially the shortages of food and medicine, has been accompanied by a stark increase in infant mortality rates (4.9 in 2020 versus 7.5 in 2022) and decrease in life expectancy (73.7 in 2021 versus 77.9 in 2018) (Oficina Nacional de Estadística e Información, 2022b, World Health Organization, 2024). The

compounded economic hurdles resulted in nation-wide protests on July 11, 2021 on the basis that protestors felt their basic needs were not being met (Leogrande & Hershberg, 2023). The worsening economic conditions since 2021, coupled with expedited permanent residency policies for Cubans immigrating to the US, have also resulted in never-before-seen levels of emigration from the country and a significant loss in human capital, including significant loss in health care fields such as physicians (Bazail-Eimil, 2023, Democracy Now, 2024, Leogrande & Hershberg, 2023, Huish, 2024). The government was also criticized for seeking to discredit dissent instead of acknowledging citizen's sacrifices and grievances (Bastian, 2023).

2.3 Theoretical Framework

The theoretical framework on which I will be drawing for this research is based on Paul Farmer's 2005 work – *Pathologies of Power* and William Cockerham's *The Social Causes of Health and Disease* (2021, 3rd ed.). My research will study the health care systems and outcomes regarding accessibility and capacity-building by framing them in the context of social causes of health and disease and structural violence. These concepts emphasize the importance of economic, social, cultural and structural determinants of health. Cockerham (2021, p. 211) states that "such factors have direct causal effects on physical health and are not just background or secondary variables in the hunt for causation" and that recognizing this "will require a paradigm shift away from methodological individualism to a more balanced conceptual approach that includes a renewed focus on structural effects". These frameworks were selected because

they emphasize the inherently social nature of dealing with human health at the policy level.

2.3.1 Social Causes of Health and Disease

The World Health Organization defines social determinants of health as "the conditions in which people are born, grow, work, live, and age, and the set of forces and systems shaping the conditions of daily life" (World Health Organization, 2011 in Cockerham, 2021, p. 15). According to Cockerham (2021, p.14), "social factors can have a direct effect on health by acting as a determinant or cause." Cockerham (2021, p. 211) states that "such factors have direct causal effects on physical health and are not just background or secondary variables in the hunt for causation" and that recognizing this "will require a paradigm shift away from methodological individualism to a more balanced conceptual approach that includes a renewed focus on structural effects." The models of accessibility in both health care systems will be analyzed with regard to the extent to which they consider and act on social determinants of health and public health in general.

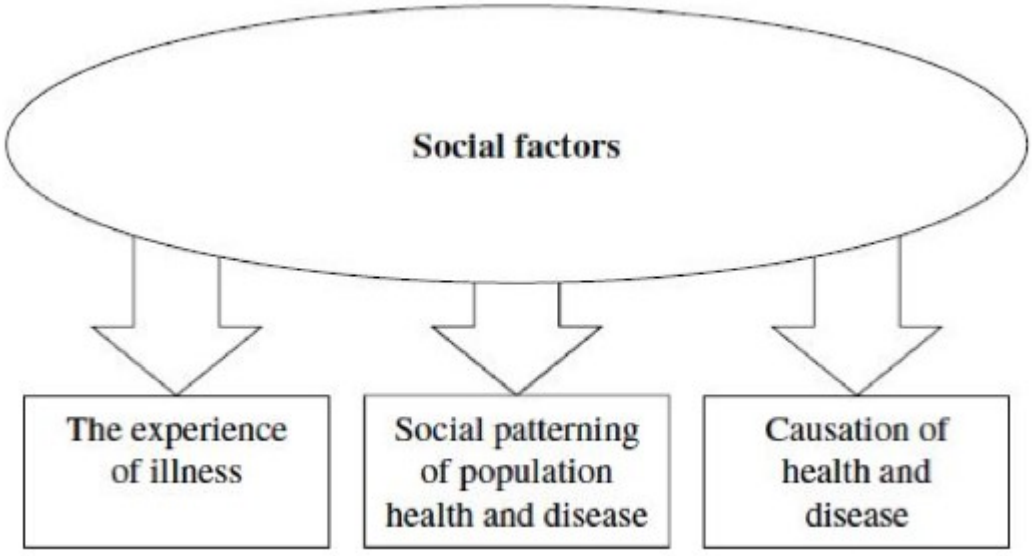

Figure 1: The direct effects of social factors on health and disease

(Cockerham, 2021, p. 15)

2.3.2 Structural Violence

Paul Farmer discusses structural violence in *Pathologies of Power* (2005). It describes a form of violence perpetrated through structures of economic, political and social inequality that deny people economic, social and material rights such as those outlined in Article 25 of the Universal Declaration of Human Rights such as healthy standards of living, food, clothing, housing, medical care, social services, security in unemployment, sickness, disability, widowhood, or old age (Farmer, 2004), and draws on Amartya Sen's notion of "unfreedoms":

> Development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systemic social

deprivation, neglect of public facilities as well as intolerance or over-activity of repressive states.

(Sen, 1999, in Farmer, 2004, p. 8).

The concept of the social causes of health and disease emphasizes that health is more than what can be addressed by a reactive, bio-medical model of medicine and indicates that effective health care systems must take into account the biological, psychological, and sociological aspects of patient health – which includes economic and social conditions. The concept of structural violence explains how socio-economic structures can construct and maintain indirect, but very real, barriers to biological, psychological, and social health, including economic opportunity. The findings of this research regarding the methods of recruitment and retention of health care workers and of service provision in Nova Scotia and Cuba will be analyzed through these frameworks by assessing how well their methods address and account for structural violence and the social causes of health and disease.

3. Methodology & Methods

3.1 Methodology

In order to research the efficacy and implementation of capacity-building and primary care accessibility strategies in Nova Scotia, this study sought the perspectives on the matter from both those responsible for implementing these strategies as well as those targeted by them. Therefore, both health care policy-makers and health care workers were recruited as participants in this research in order to gauge policy-maker attitudes toward capacity-building and the reasoning behind their strategies as well as how health care workers respond to these strategies/policies in addition to gauging the reasons they chose to work in health care in their profession and in Nova Scotia, and ascertaining what pressures might be felt by health care workers to leave the province. This was done in order to gain a better understanding of the factors affecting retention and recruitment and whether these are the same factors being taken into consideration by policy-makers.

Likewise, policy-makers were also recruited to research policy-maker attitudes and reasoning pertaining to strategies aiming to increase access to primary care and participants from the general public of Nova Scotia - those accessing or seeking to access primary care - were also recruited to research their experiences and perspectives regarding access to primary care in the province and government strategies aiming to improve it. This was done in order to help gauge the efficacy and impact of government strategies.

Interviews and survey were conducted to generate data with which to compare with available research and findings from Cuba relating to the nature and accessibility of

primary care, health care worker recruitment and retention. Answers to interview and survey questions were analyzed for trends/patterns and for how the answers fit or connected with the secondary data and prior research in order to determine the efficacy of health care policies as translated into real experiences. The themes from the data collected in Nova Scotia were then compared and contrasted with available pre-existing literature, and the researcher's own findings, on Cuba as much as possible. I was unable to find results from any recent surveys conducted on health care in the province with which to compare data. Even the NSHA's most recent 'patient experience survey' listed on its corporate website was only from 2014 (Nova Scotia Health, n.d.).

It is more difficult for me as a non-resident or citizen to conduct research in Cuba than in Nova Scotia due to legal, linguistic and financial barriers. Therefore, I replaced replication of the methods used in Nova Scotia with the more obtainable goal of supplementing the review of existing research on capacity-building and primary care access in Cuban health care with non-participant observation in Cuba and interviewing an expert on Cuban health care in English. These methods, while not as informative as those used in Nova Scotia, offered additional verification and clarification of data reviewed from existing literature, providing a clearer general snapshot on Cuban capacity-building and primary care access methods.

Thus, this research took a multiple-method approach which, in addition to a review of existing literature, included semi-structured interviews, a survey, and non-participant observations.

3.2 Methods

3.2.1 Survey

As one part of the data collection for this research, I conducted a survey seeking participants from the general public of Nova Scotia asking questions pertaining to their experiences in accessing the health care system and their perceptions of the health care systems effectiveness both overall and in various areas. This survey was spread through the researcher's Facebook and Instagram accounts and shared by family and friends of the researcher on Facebook.

The online survey method was used for participants from the general public of Nova Scotia due to its practicality in gathering a large response rate and sample size due to its ease of access and administration, allowing for a way of estimating attitudes and experiences regarding access to primary care across the province's population (Jackson & Verberg, 2007).

3.2.2 Semi-structured interviews

Semi-structured online interviews were held with provincial government policy-makers, and various health care professionals including nurses, a paramedic, a nurse practitioner, and an emergency physician. Family physicians were initially also sought for interviews as well but the researcher was unable to obtain responses from any family physician office or from the Dalhousie University Department of Family Medicine. Therefore, after discussion with the research supervisor, it was decided that current students of Dalhousie Medical School as these students proved easier to contact and obtain responses from.

The semi-structured interview format was chosen for participating policy-makers and health care workers/students because this format allows participants to provide their own perceptions, descriptions and explanations of topics discussed (Jackson & Verberg, 2007), which is important in understanding factors influencing retention and recruitment of health care workers as well as the reception, and therefore efficacy, of recruitment and retention strategies by/on health care workers.

Workers in different health care professions were interviewed in order to represent workers in different points of access to health care and have different work and pay conditions, retention strategies, and training processes. Policy-makers involved in the recruitment and retention of health care workers and provision of health care services allowed for the addition of perspectives from a different vantage point and relation to the health care system at the policy-making rather than service-providing level. Interviewing informants from all these sectors provides a fuller picture of health care provision and capacity-building. Electronic images serving as information posters were posted to the researcher's social media accounts and participants were instructed to email the researcher at their Dalhousie University email address and state which category of participant they would like to be interviewed as. No compensation was given to participants and they were not likely to incur any expenses.

3.2.3 Non-participant observation

Because of the legal, financial and linguistic challenges present in conducting similar research in Cuba, where I am not a citizen or resident, I participated in a 10-day tour of eastern Cuba with the US-based organization IFCO Pastors for Peace as part of their 'Frienshipment Caravan' to observe prevalence and location of health care

institutions, public health campaigns and health care workers in communities as well as the nature of the care provided. The Caravan travelled to a series of different locations throughout the eastern 'Oriente' region of Cuba including Gibara, Holguin, Bayamo, Santiago de Cuba and Guantanamo. This ensured both urban and rural observation.

This method was chosen because it was more practical than attempting to conduct equivalent interviews and surveys with Cuban respondents as conducted in Nova Scotia. While this did not provide as much insight into public and inside perceptions of the health care system as interviews, it offered additional verification and clarification of data collected by previous research on capacity-building and primary care accessibility in Cuban health care.

3.2.4 Interview with Nova Scotian Expert on Cuba

As part of the series of interviews conducted for this research, I was able to interview a former university professor of Latin American studies who specialized in Cuba and its health care politics and lives in Nova Scotia. They also served as interpreter for then-Nova Scotia premier John Savage in meetings with Cuban president Fidel Castro as part of Nova Scotian trade delegations to Cuba has immediate family working as physicians in Nova Scotia. They travelled to Cuba again along with a Nova Scotian health care delegation which included the then-Dean of Medicine at Dalhousie, Chief Medical Officer for the province, and CEO of the IWK – aiming to study the Cuban health care system. The interview consisted of questions pertaining to capacity-building, primary care access, and public health and preventative care as part of primary care access. Conducting this interview was done in order to partly compensate for the lack of interviews conducted in Cuba. Interviewing this former professor provided valuable

information and perspective given their close experience with and knowledge of both the health care systems of Cuba and Nova Scotia, including having been in attendance during multiple meetings between a Nova Scotian premier and Cuban president and having been part of a Nova Scotian delegation to Cuba with the express purpose of studying Cuba's health care system.

3.4 Anticipated Issues

3.4.1 Ethics

Dalhousie University ethical standards will be strictly applied when conducting interviews and non-participant observation. Personal health data will not be viewed or analyzed and physicians will not be made to break confidentiality of any kind. Free, prior, and informed consent will be ensured from all participants. The methods of this study will be reviewed as per standards of Dalhousie University prior to commencement of research.

3.4.2 Challenges and Limitations

There are several limitations to this study that should be taken into account which are laid out as follows:

1. *Health policy is always changing:* Health policy in both regions is subject to change over the course of conducting research and writing the thesis. However, this simply means that staying up-to-date with changes was necessary throughout the course of this work.

2. *Limited research ability in Cuba:* Due to legal, linguistic and financial barriers, it is more difficult for me as a non-resident or citizen to conduct research in Cuba than in Nova Scotia, as mentioned above. I already have lodging, connections, citizenship, and linguistic fluency in the local language in my areas of study within Nova Scotia. My lack of research permit and imperfect Spanish proficiency keep me from conducting interviews such as in Nova Scotia. This means that data collected from Cuba may not be as detailed as data collected from Nova Scotia. In order to offset this to some degree, the Cuban side of research is be more dependent on review and analysis of existing literature with supplementary data generated from informal participant observation in Cuba and interviewing experts on Cuban health care in English.

3. *Significant economical and political differences between Nova Scotia and Cuba:* Nova Scotia is a province within a federal parliamentary constitutional monarchy with a largely capitalist market economy. Cuba is a unitary socialist republic with a largely socialist centrally-planned economy. Canada is also a wealthy, highly-industrialized, and developed economy whereas Cuba, while it has made impressive advancements, is still a very poor and developing country relative to Canada. Canada and Nova Scotia are also not subject to trade embargoes imposed by the two countries' largest and wealthiest neighbour – the United States. These differences will be taken into account over the course of the research. While there are stark differences, Dalhousie scholar John Kirk (2017, para. 30) argues that "lessons from the Cuban system are pertinent" for Canada and that "the Canadian

system could indeed benefit from a study of public health care in Cuba" (Kirk, 2017, para 28).

4. Findings and Analysis - Cuba

4.1. Observations in Cuba

In order to partially compensate for not conducting interviews of Cubans to parallel those conducted of Nova Scotians, I travelled to Cuba for a period of roughly ten days as part of the US-based Interreligious Foundation for Community Organization (IFCO)'s 33rd "Friendshipment Caravan" to Cuba from July 18th to 28th, 2023. IFCO (also known as Pastors for Peace) is an interreligious faith-based organization with the stated mission of "support[ing] the poor and disenfranchised in developing and sustaining community organizations to fight human and civil rights injustices" (IFCOnews, 2024). The purpose of the annual Frienshipment Caravans is to "challenge the US government's economic blockade", take "valuable humanitarian aid to Cuba" and "demonstrate to the Cuban people that they are not alone and that they have allies even in the 'belly of the beast' in the US" (IFCOnews, 2023). The Caravan trip involved travel across the easternmost region of Cuba – commonly referred to in Cuba as 'Oriente', with overnight stays in the cities of Holguin, Bayamo, and Santiago de Cuba as well as a stay in the small and rural coastal town of Gibara and a day visit to the city of Guantanamo.

Although the Caravan was not specifically oriented around the topic of health care in Cuba, it did involve aiding in the construction of a new hospital in Gibara and an informational visit to Hospital Carlos Manuel de Céspedes, the provincial general hospital in Bayamo, during which there was a presentation given regarding the structure

and state of health care in Cuba given by several practicing physicians. The content presented was consistent with prior research included in the above literature review.

The presentation emphasized the wholly publicly-funded and -operated nature of the Cuban health system as well as the high emphasis on preventative health care. It also brought attention to chronic shortages of pharmaceuticals across the country which makes delivery of health care much more difficult than it would be without the shortages. It was explained by presenters that these shortages were largely due to the US economic embargo against Cuba which results in many pharmaceuticals being unable to enter the country. It was also stated that although Cuba has its own capacity to manufacture some pharmaceuticals, there are ingredients needed in many that are not naturally occurring in Cuba, leaving it dependent on international trade for these ingredients and often unable to attain them internationally due the embargo.

When I asked the presenter – himself a Cuban-born physician – why so many Cubans end up becoming doctors, his answer mainly focused on socio-cultural factors, explaining that Cuban society (largely because of the socialist government) places a strong emphasis on individuals contributing to aiding their community and country and that becoming a physician is viewed as one of the most prominent ways of doing so. It is worth noting that this is likely viewed as one of the most prominent ways in part due to the relative accessibility of a medical education in Cuba. While it takes slightly longer than many other degree pathways, it is no more monetarily costly than any other – as all Cuban post-secondary programs are completely tuition-free. This factor eliminates one of the major barriers to receiving a medical education, making it significantly more accessible to the wider national populous than it would be in Canada or the United States

– where service in the military tends to be viewed more as the default way in which to one's country than becoming a physician.

A significant number of physicians present during the presentation were from outside Cuba, mostly trained through the Latin American School of Medicine in Havana. According to the presentation, the hosting hospital employed 406 foreign-born workers from 46 different countries out of a total of 3144 workers. This included 151 foreign-born physicians out of 983 total (~15.4%) and 201 out of 1,009 licensed nurses and nurse technicians (~20%). If so, ELAM graduates choosing to practice in Cuba may serve as some degree of counterweight to the outmigration of Cuban-born doctors to the United States and Global North.

The many pharmacies which were passed by in the various Cuban cities visited had their shelves easily viewable to the outside. In contrast to most other stores/outlets, almost all pharmacy shelves were noticeably empty, consistent with the hospital presentation's assertion of the difficulty for the embargoed nation's difficulty in acquiring pharmaceuticals, as well as the reports from independent media such as Havana Times (Brizuela, 2023).

4.2 Interview with Nova Scotian Expert on Cuba

As part of the series of interviews conducted for this research, I was able to interview a former university professor of Latin American studies who specialized in Cuba and its health care politics and lives in Nova Scotia. In order to protect the former professor's confidentiality, they will hereby be referred to as Dr. C.

In terms of the main differences between Cuba and Nova Scotia's approaches to capacity-building, Dr. C emphasized the presence of professional associations in Canada, and especially in Nova Scotia. The former professor asserted that these associations "maintain and protect their privileges and their rights, and make it very difficult for anybody who doesn't jump through the hoops which they… have put in place". They then stated that in Cuba, most doctors come from "average families" as opposed to wealthy ones and understand what it is like to live in poor conditions. Additionally, Cuba has a rigorous 6-year medical education program prior to the commencement of students' residency and eventual specialization. Dr. C explained Cuba's success at producing high rates of physicians by stating that medicine is a highly-regarded position in community and that Cubans are socialized to believe they have a role to serve in society, noting that one can make considerably more money in Cuba working in tourism than in medicine. They partially attributed this emphasis on duty-to-community to the socialist structure of Cuban society, likely alluding to the more cooperative nature of socialist economies as opposed to the competitive and individualist nature of capitalist/neoliberal ones. However, they alleged that this view of the profession is changing due to increasing economic and COVID-related challenges as well as the difference in attitude in the younger generations who grew up during the Special Period. When asked what Nova Scotia can learn from Cuba, Dr. C recommended to listen to patients, to have a more encompassing pedagogy, to alter the approach to medicine, medical school, and training -stating that Cuba gives more responsibility to medical students earlier on and that this is better, and to give first year medical students a heavier focus on social determinants of health and public health closer to how Cuba does.

Dr. C claimed that Cuba does a better job in terms to rural accessibility to health care than Nova Scotia and Canada as a whole – emphasizing a "huge difference" in rural and urban health care accessibility and also in disease rates as a result, but stated that this does not occur in Cuba, and attributed this to Cuba's policy of assigning all medical graduates to where they are deemed most needed for two years after their graduation (after which they can practice where they please). Doctors with the same qualifications will make the same amount of money no matter where in the country they practice, they stated.

Nova Scotia premier (and former physician) John Savage was the first Canadian premier to lead a trade delegation to Cuba in 1994, returning again in 1996 (Mulligan, 2016, Kimber, 2018). According to Dr. C, Savage discussed accessibility- particularly rural accessibility – to health care at length with Fidel Castro when Dr. C was his interpreter during meetings. Upon returning to Nova Scotia, Premier Savage allegedly approached Doctors Nova Scotia (which had a different name at the time) with a Cuban-inspired plan to pay for Dalhousie medical students' tuition for the four years of the program if they agreed to be placed where they were needed in Nova Scotia for the first two years of their practice. However, the medical association allegedly refused to consider the proposal, claiming it was an "abuse of human rights" to deny medical graduates' "right" to practice where they want to. Although it is difficult to substantiate these claims, it is known that Premier Savage had some history of tension with the then-named Nova Scotia Medical Society and there is a notable history of pushback from Canadian medical associations against changes in health care systems on behalf of patients (MacLeod, 2006, Marchildon, 2012).

When asked what Nova Scotia could learn from Cuba in terms of accessibility to primary care, Dr. C emphasized that Cuba has a more level playing field. Dr. C claimed that Cuba is "lightyears ahead" of Nova Scotia in terms of seeing its patients as "bio-psycho-social beings" – meaning recognizing biological, psychological, and social aspects of human health, whereas Nova Scotia's health care tends to compartmentalize patients. They discussed how Nova Scotia has a "long, profoundly-rooted tradition" of seeing its patients as strictly individuals, who, until the 1950s, were customers in a private health care market (Marchildon, 2012), contrasting this with Cuba, where family doctors are far more involved in their community and see their patients on a daily basis through formal and informal community interaction and are required to see each of their patients in a professional capacity at least once a year, which includes getting a sense of their living conditions. One aspect of preventative health care that members of the Nova Scotian medical delegation said Cuba was "lightyears ahead" of Canada on was data collection, Dr. C claimed. They explained that every Cuban family doctor sends in a report to their local polyclinic every week of "how many patients they've seen, what pathologies they've dealt with and any concerns they have". Thereafter, the polyclinics will gather the weekly reports and send them to the Ministry of Public Health, allowing them to have a "snapshot" of what pathologies appear in which areas and therefore are able to marshal resources to quickly prevent spreading – partly due to the Ministry's control over all medical personnel. This information was consistent with that uncovered in the prior literature review.

Dr. C stressed the important position that the MINSAP occupies in Cuban governance, placing it only behind the Ministry of Foreign Affairs in terms of

importance. They said the power of this ministry was because “the two jewels in the crown of Cuba are education and health care, health care in particular”, adding that “it is an essential part of the government, and nothing moves in Cuba without dealing with MINSAP”. Dr. C explained that many government minsters aside from that of MINSAP also happened to be doctors and when Savage asked Castro why this was that Castro replied “because I can trust a doctor because I know why they became a doctor. I know what their moral code is”.

5. Findings – Nova Scotia

5.1 Introduction

This chapter contains data collected from 38 survey respondents from the general public in Nova Scotia as well as interview responses from 4 policy-makers, 1 emergency medicine physician, 1 nurse practitioner, 4 nurses, 1 paramedic, and 3 medical students at Dalhousie Medical School – all from Nova Scotia. Nova Scotian residents surveyed included 24 from the Eastern health zone, 6 from the Northern Zone, and 8 from the Central Zone. Only 4 were age 65 or above. 27 identified themselves as a cisgender woman, along with 3 cisgender men, 2 non-binary people, and 4 who preferred not to say. Five considered themselves to have a medical disability, 1 identified as a person of colour, and 11 said that they had experience accessing maternal health care in the province. Participants' identities will be kept anonymous aside from the above identifiers in order to protect the participants' confidentiality.

In this chapter, findings are summarized according to several themes which are grounded in the data. These themes are as follows: **recruitment, retention, accessibility, public health & prevention, and inter-agency communication & cooperation.**

5.2 Recruitment

5.2.1 Reasons for Working in Health Care

Almost all respondents across professions explained that their reasons for deciding to work in health care came from a desire to help other people and/or having

family work in health care. All but one respondent who did not cite family working in health care as a motivation cited experience working in proximity to the health care sector. One nurse explained their reason to pursue nursing was due to the perceived job stability of the position at the time they began.

As for participants' decision to work in Nova Scotia, the most common given reason was that the participant was born and raised in Nova Scotia and wanted to stay in the province because of that. For those who were not born in the province, they stated that it was because they liked living in Nova Scotia and/or they had family or friends in the province. Participants cited friendliness of the local population, proximity to the ocean, and slow pace of life as reasons for why they liked living in Nova Scotia. Only one participant, an emergency medicine physician, listed practical/career-related reasons for why they chose to work in the province. One medical student indicated that they would most likely return to their home province to practice because most of their family lived there. The other two medical students indicated that they would like to practice in Nova Scotia, but that it would depend on job availability.

The two medical students who indicated that they were unlikely to practice family medicine described that the unattractiveness of the profession was due to high and intense workloads with insufficient compensation for the amount of work required and the costs of operating in the current economic state in Nova Scotia. One said that it "seems like there is a gap between how much physicians are paid and how much work they do outside of office hours".

5.2.2 Accessibility of Education/Barriers to Entry

Regarding barriers which would impede or prevent people from working in health care in Nova Scotia, policy-makers listed finding employment for spouses, housing and childcare, cost of training, seat capacity for nursing and medical school, and entry requirements, while one government official did note that they recently increased the number of seats for Dalhousie's medical school. Cost of training was the most common answer given by health care worker respondents and medical students, followed by high competition and requirements of entry into training programs – particularly for nursing and medical school. These two factors were cited by all three medical students interviewed. One medical student suggested better financial support for students with lower interest rates on loans and lines of credit and cheaper tuition. Another medical student said that although there were some pathways and programs for students who come from "underrepresented communities", that the demographics of their class did not "seem very equitable", adding that it was "quite homogenous" with most students coming from white families with above-average income and typically with family members who work/worked in medicine or other health care positions.

5.2.3 Recruitment Strategies

When asked what the province was doing to incentivize more people to work in health care, policy-makers' answers included the new master agreement between the government and physicians in the province in which renumeration increased to the highest rates in Atlantic Canada, the DHW incentive package of $125,000 for new physicians starting to work in rural Nova Scotia, high school cooperative education programs, the bursary for paramedics which covers half of their tuition (it now covers

tuition in full), now allowing US physicians to practice in the province, increasing amount of institutions and locations where educational programs are offered, increasing nursing school and medical residency seats, and having an office of health care professional recruitment. In terms of government initiatives to increase accessibility of education in health care-related sectors, policy-makers pointed to numbers of seats being paid for by the province, the province increasing the number of medical and residency seats each year for the past three years, a new medical school and six new medical seats added at Cape Breton University, satellite programs in Yarmouth for training physicians, and launching a physician assistant program. Actions of the province which policy-makers thought were working well in recruiting and retaining family physicians included: the new contract/agreement with physicians, working collaboratively with an interest-based approach, leaving money to the end and asking what the system needs first, a focus on international recruitment, a dedicated physician recruitment position at NSH, and successful outreach and marketing campaigns.

Health care workers were asked what they thought the province could do to incentivize more people to work in health care. Most relevant respondents cited better pay and better working conditions. There were some suggestions of systemic restructuring. The emergency department physician suggested redesigning Canadian health care to be federally managed or at least have equal pay rates and standards across the country. The nurse practitioner strongly advocated for a return to the previous de-centralized provincial health care structure because it was much easier to assess the needs of facilities and residents of the province. Three out of four nurses interviewed included better pay and working conditions and two nurses advocated for more hands-on

in-person education for nurses in a hospital setting, one stated they thought that nursing should be made a community college program again instead of a university one. The hiring of travel nurses was also unpopular among nurses. The paramedic interviewed believed that hiring more family doctors would relieve the workloads and improve the working conditions in the rest of the health care system and therefore make retaining and recruiting workers much easier. One medical student as well as the emergency department physician stressed that they did not think there was a lack of people wanting to become physicians, but rather a lack of accessibility to medical school – whether it be entry requirements, number of seats, or costs.

Three out of four nurses said that bonuses from the province were good incentives to work in the province and one nurse and one medical student said that the collective agreements with the province was good. One medical student said that the medical school's rural medicine week was a positive experience and thought that it opened his classmates' eyes to working in family medicine in rural areas. Another medical student could not think of any government policies that they thought were working well to recruit and retain physicians. As for what was not working, they cited the disconnect between paper patient records used in HRM and the electronic records used in the rest of the province. They also said it was "crazy" that one of the province's largest hospitals – the Victoria General campus of the QEII, was over 100 years old and without drinkable water.

5.3 Retention

5.3.1 Reasons for Leaving Nova Scotia or the Health Care Sector

All groups of interviewees were asked what they thought were the main reasons why people working in health care leave Nova Scotia or leave their profession. Every respondent across groups listed poor working conditions/feeling overworked and/or lack of renumeration in Nova Scotia and higher pay rates elsewhere, with most respondents including both of these factors. One medical student noted that people who are not from the Maritime provinces tend to prefer moving to live and work in Ontario or "out West". Respondents described overwork in various ways, including lack of work/life balance, a lot of pressure, working extra hours, stress, guilt over nor being able to meet the public's needs, pressure, and burnout and attributed this overwork to a lack of workers and a lack of beds in hospitals.

One policy-maker involved in recruitment of internationally-trained physicians stated that a lack of diverse religious and/or cultural supports in Nova Scotia, especially outside of Halifax, as opposed to larger cities in Central and Western Canada, adding that adjusting to new cultural environments can be challenging without them.

5.3.2 Working Conditions

Policy-makers were asked in what ways the province aims to ensure satisfactory working conditions for family doctors, nurses, paramedics, and other hospital workers. One policy-maker listed policies and implementations which more directly deal with working conditions: psychological health and safety standard, procedural follow up for quality assurance, respectful workplace policies, equity, diversity and inclusion policies,

adding “Are they enough? They’re not, but they’re at least the framework is there”. Another policy maker noted that it is difficult to create stable working environments with so many staff shortages and focused on alleviating burdens such as addressing workforce issues by recruiting more workers domestically and internationally. They also cited the settlements of “very fair” contracts with physicians and nurses, “showing people that we appreciate them and then you know hearing from people in that like enabling people to make decisions in their in their own workplace makes a big difference”.

Health care workers were asked if they were satisfied with their working conditions. The nurse respondents were generally not satisfied with their working conditions. One was satisfied with theirs now that they were working as a specialized nurse, but thought that the current conditions for general nurses were not satisfactory – noting that they were always exhausted and stressed with not enough time for charting or breaks and constantly on the move and conducting manual labour. Two general nurses attributed part of their unsatisfactory conditions to understaffing and two nurses working in HRM claimed moving to electronic charting like the rest of the province would improve their conditions. The paramedic interviewed said that their working conditions had improved within the past year and that they were satisfied with their equipment but advocated for four-wheel drive ambulances to make traversing muddy or snowy roads in rural areas. The emergency department physician said they were satisfied with their conditions and the nurse practitioner said that they thought their conditions could be improved with more health care workers working in health care management positions.

When asked how if they were satisfied with their typical workload, worker respondents gave mixed answers. The emergency physician, paramedic and three of the

nurses were mostly satisfied with theirs whereas one nurse and the nurse practitioner felt very overworked. Every worker respondent said that they always or often feel exhausted after a shift.

5.4 Accessibility of Health Care Services

One high-level policy maker was asked what the province was doing to ensure easy access to primary and emergency care in remote and rural areas and other traditionally underserved communities. They said that there is an issue in doing so because there are many doctors retiring while the population grows. As a policy approach aiming to address accessibility to primary care, they cited primary care clinics that are offered through pharmacies, mobile clinics, virtual care and Nova Scotia, which is available to people who are on the need of family practice registry for free of charge, a new health care way-finder phone app, and a First Nations health service to properly serve Mi'kmaq communities.

The emergency department physician explained that emergency departments are now overcrowded because people are going to emergency departments for primary care because they do not have access to primary care, claiming that about 30-40% of patients they see do not need to be in the emergency department.

Nova Scotian surveyed from the general public were asked to rate their trust Nova Scotia's health care system to ensure and maintain health on scale of 1-10 (10 being high trust), to which the average answer was 5.61 and the most common answer was 6. Twenty-eight out of 38 respondents to the survey indicated that they had at some point gone to the ER instead of a family doctor due to their family doctor either not

being available or accessible or because they did not have one. The most common single answer to how long the longest time they had had to wait in the ER was 8 hours and the highest was 18. Eighteen respondents indicated that they had at least once decided not to visit their family doctor for a health issue due to inconvenience of access, most commonly due to long wait times for appointments or far distance to clinics. Five respondents said that they found their family doctor's office inconveniently far from where they live. Thirteen respondents listed wait times of an hour or more when asked what was the longest they have had to wait for an ambulance in the province for themselves or someone else. However, almost all respondents were satisfied with the distance to the nearest hospital from where they lived. Sixteen respondents said that they had at one point not gone to the ER or gone to a different ER due to a closure in that of their local hospital.

When asked what things they appreciate most about the province's health care system and what they would not want changed, 22 answers centred around its financial accessibility (that it is largely free or low cost) and 6 around appreciation of health care staff (their kindness and/or hard work).

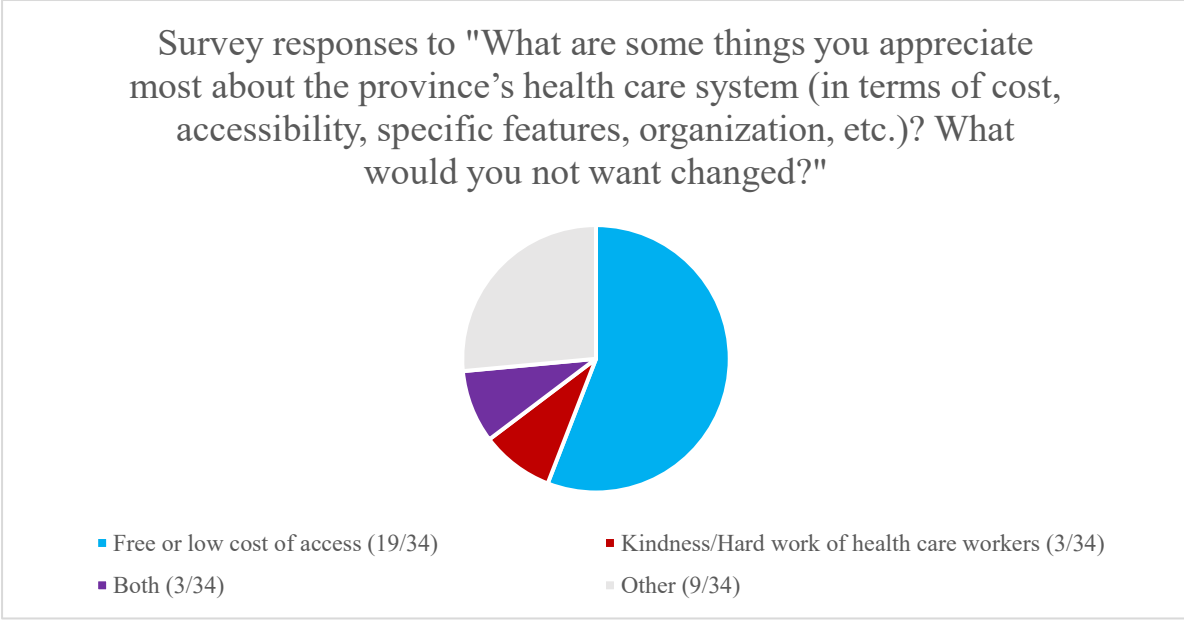

Figure 2: Survey responses on most appreciated health care feature

5.5 Public Health & Prevention

5.5.1 Incorporation of Public Health and Prevention in the Health System

A high-ranking policy maker was asked what some of the main ways in which the province promotes public health and incorporates social determinants of health into its health care planning. They brought up an initiative called Action for Health, which they described as a "systemic plan in order to move things forward" in which "Solution 6" concerns "the things that affect health", "looking across all departments" in an "across government approach". They also made mention of a nurse-family partnership in the Eastern Zone "as a as a pilot where high risk families are followed by a registered nurse prenatally till the child is 2 years old and it's unbelievable the outcomes as a result of that program". They went on to explain; "So that nurse works with the at risk family around a

variety of different things. Employment, housing, you know, health, all of these different things".

However, the nurse practitioner interviewed stated that "the system is designed to react to health situations. It's not at all designed for prevention, promotion and treatment", adding that "as nurse practitioners, our training is based on prevention, promotion and treatment for the medical model is based on treat symptoms only, like the models are so vastly different that we practise in" and that many nurse practitioners find themselves sliding more and more into a medical/biophysical model of health care delivery due to pressure from physicians in their clinics. One medical student thought that the province was slowly improving in terms of the health care system's focus on public health and prevention and said "It seems that the focus should be on preventative medicine as it will save people from suffering in the long term and will also benefit the province financially as well".

When asked how many of the health issues they see that they thought could be prevented with better public health care and health promotion, all health care workers who gave percentages gave figures above 80%, with one giving a percentage as high as 95%. Those who did not give numbers used the terms "a lot" or "most". Most nurses said that their work was much more geared towards reacting to health issues rather than preventing them by a significant margin. At least two respondents mentioned that they thought increased investment in public health and prevention would save money in the long run for the health care system, noting that reacting and healing health issues is quite expensive.

Residents of the province had mixed views on whether the province does a good enough job in promoting public health and prevention, with roughly equal numbers saying it could be improved and that it was adequate. Several respondents made mention that its strategies for the above were particularly lacking in regard to mental health. The majority of respondents felt that their specific individual needs (biological, psychological, social, economic or cultural conditions, etc.) were not adequately known and addressed by the health care system, with multiple specifically citing a lack of attention to psychological/mental health.

5.5.2 Public Health and Prevention in Health Care Education

All medical students and health care workers except for one nurse said that they were satisfied with the level of education on public health, social determinants of health, and health promotion that they received during their training programs, with some stating that "there could always be more".

5.5.3 Family Physician Involvement in Public Health and Prevention

One high-level policy-maker, the emergency department physician, the nurse practitioner, and all medical students were asked if they thought family physicians should be more involved in public health and health promotion if overall workloads did not increase. The policy maker explained that their government is focused on developing a more collaborative and team-based approach to providing primary care, citing having dietitians work in primary care clinics as an example. All health care workers and medical students but one thought that family physicians being more involved in public

health and prevention would have a positive impact – on the condition that workloads did not increase, with some strongly in favour of it.

5.6 Inter-Agency Communication & Cooperation

5.6.1 Primary Care and Hospitals

A high-level policy-maker, the nurse practitioner, and the emergency department physician were asked if they thought there was adequate cooperation between family doctors and hospitals in terms of public health and health promotion. The policy-maker answered that the province aims to ensure good communication in this regard through updating antiquated technology so that each patient has one single record, changing the way data is collected, and ensuring the health authorities understand communities in the province by using Statistics Canada to understand the health and service utilization of communities in the province. They included that they are making efforts to ensure the data collection systems are stabilized to survive through different election cycles. The emergency department doctor explained that they thought that family doctors are "somewhat marginalized" and aren't "given ownership" of their patients, "which would be helpful for them if they were actually able to direct their patients through the system, but they cant and they're kind of disenfranchised by that which is a major problem". The nurse practitioner said that there is generally tension between general practitioners and nurse practitioners within primary care clinics and that GPs have more power and influence. They also noted that is generally an anxiety in calling hospitals for emergency department admissions due to the expected treatment at the other end of the phone,

stating that emergency department workers are very programmed to reject or dismiss what they do not deem an emergency.

5.6.2 Primary Care and Government

The nurse practitioner was asked if they thought there was adequate communication between primary care workers and the NSHA and DHW in terms of public health promotion and data-sharing to which they replied “no”. They said they “have no way to reach anyone at DHW in Halifax or to make recommendations. I'd have to go through just my local supervisor manager. Like that whole connection is impossible unless you know of somebody”.

5.6.3 Workers and Government

Workers and medical students interviewed were asked if they felt listened to by the provincial government as a health care worker. Three out of four nurses interviewed responded “no” and the other said that they were new as a nurse and therefore did not have enough experience to have an answer. The three that answered “no” all echoed similar sentiments that the monetary incentives such as the one-time payments were welcomed, but that what they would prefer is addressing understaffing by hiring more nurses as well as improving working conditions. One nurse respondent said that they thought every single nurse would say “keep the money, hire another nurse” and added “80-90% of nurses would rather creating a job or build a new building or add to an existing building than putting them in a higher tax bracket so they can make more money from them”. Another nurse added “…if I go into work and I have like 16 patients and I can't properly care for all of them like that money isn't gonna actually solve my

problems". However, the fourth nurse who did not answer "no", said that they had a positive view of the new nurses' contract.

The paramedic had a positive view of the government's action on health care, stating "I do find that this government in particular has been the best one in recent years. They really do seem to be trying to put out new ideas and new programmes". They went on to say, "I know they ran on the platform of healthcare and like to me it seems like they're trying to deliver at least they've made a lot of changes to our system". However, they did also say that it would be better to have more access to patient records, which is difficult to achieve because the records are through NSHA and they do not work for the NSHA as paramedics even though they work very closely with them but that otherwise communication with the government agencies and hospitals was good.

As for whether medical students felt listened to by the provincial government, one said "I think so" – citing representatives among programs and classes, another said yes, although noting that they have not had much experience with the government yet, and another said "no, not at all", adding that "I don't bother half the time… I'm not a one to go out of my way to try to speak to our political leaders or MPs because I don't think they actually care". They then said that they thought that should be less "bureaucrats" in health care administration and more health care workers.

5.6.4 Challenges in Implementation

Policy-makers were asked what some of the biggest limitations/barriers were to implementing desired recruitment and retention strategies. All stressed that it was a collaborative process which involved working with and across various organizations and

partners. One used an analogy to describe the situation: “you own a factory, I own a factory, but I can't tell you how much you're going to get paid or where you're going to work, or what type of work you're going to do because that is dictated by different partners”. The same policy-maker also mentioned that some barriers were “system-wide” such securing housing and spousal employment for health care workers. Another policy-maker brought attention to licensing pathways and assessing international training programs as potential barriers but added that regulators are “great partners” in figuring out licensure pathways. Lastly, another policy-maker acknowledged that there were barriers, but that the government was “bulldozing a little bit, respectfully” and making an effort to “cut red tape” and to be a “careful disrupter”. As an example, they cited the passing of the Patient Access to Care Act which allows for automatic licensing transfers from other provinces in Canada.

6. Analysis & Conclusion

The purpose of this chapter is to go through each of the categories of the above findings in Nova Scotia and assess whether Cuba's methods in health care management offer any insights that could help to resolve the issues brought to attention within the Nova Scotian findings.

6.1 Recruitment & Retention

Interviews with health care workers across professions in Nova Scotia indicate that the primary motivator for wanting to work in health care comes from a desire to help other people. However, they also indicate that exposure to health care work environments often plays a role in sparking interest in working in health care as well. Interviews also indicated that the primary motivator for working in Nova Scotia as a health care worker is being from, or at least having lived in, Nova Scotia and wanting to live close to family, friends, places, and culture with which they are familiar. The answers of one non-Nova Scotian medical student who expressed desire to return to family in their home province as well as interviews with policy-makers working in physician-recruitment suggest that desires to live in closer proximity to family and familiar cultural surroundings is a significant factor that often leads to non-Nova Scotian health care workers choosing to leave the province. By far the most commonly listed barriers to working in health care cited by the interviewees were the cost of training and competitive and restrictive entry requirements, and limited amount of seats in education programs. These were followed by employment for spouses and housing accessibility.

As one medical student made a point of emphasizing – there is no lack of desire, simply a lack of access.

Higher renumeration was often cited as an effective retention strategy, but was parallelled by improving working conditions. Some of those who cited increased pay a way to increase recruitment and retention of health care workers cited low renumeration for the amount/stressfulness of the work required as a response to being asked why health care workers do/might leave the province to work elsewhere. Medical students also indicated heavy workloads with insufficient renumeration to make up for the amount of work as the primary disincentive to enter family medicine as a career path. In short, lack of pay appears to be a significant factor in terms of retention and recruitment – but for the most part only in conjunction with heavy and stressful workloads. Health care workers interviewed made it clear that understaffing was directly correlated with poorer working conditions across professions. Nurses explained that understaffing of nurses added to workloads and stress of existing nurses. As one nurse noted, “I think every single nurse would say ‘keep the money, hire another nurse’”. The emergency physician explained that a lack of family doctors directly contributed to overcrowding of emergency departments as patients would seek out primary care there instead of inaccessible or unavailable primary care centres/family doctors. While medical students cited paperwork and charting outside of office hours as reasons for overworking of family doctors, they also cited high patient ratios – something that could be amended by more family doctors practicing in the province. Therefore, the lack of staffing in health care and the increased workloads that result from understaffing join to form a feedback loop in which a lack of staff reinforces poor work conditions which then reinforce a lack

of staff, meaning recruitment and retention are intertwining issues that need to be addressed conjointly.

Cuba's recruitment methods may offer a wedge with which to jam into and bring an end the above feedback cycle. As discussed in the above review of literature as well as by the Cuba expert in my interview with them, Cuba makes a particular point in recruiting from the general population of "everyday Cubans" as well as those from disadvantaged and vulnerable communities both domestically and abroad. Medical education is made significantly more accessible with no tuition costs, regular stipends to students, and widely available scholarships, therefore all but eradicating one of the two most significant barriers to entry into health care fields as cited by the Nova Scotian interviewees.

As discussed in the review of literature, the vast majority of these medical students from vulnerable communities end up returning to work in the same or similar communities from which they came. This is consistent with findings from the interviews in Nova Scotia that the primary motivation for working in the province is being from the province and that one of the primary motivators for non-locals to leave being that they are *not* from the province. This indicates that given decent working conditions and adequate income, health care workers will often stay and practice in the area in which they are from in order to serve their local community. These findings suggest that, by-and-large, if the province recruits from Nova Scotia, those workers are more likely to work in Nova Scotia, if the province recruits from Mi'kmaq and African Nova Scotian communities, those workers are more likely to work in Mi'kmaq and African Nova

Scotian communities, if the province recruits from rural areas, those workers are more likely to work in rural areas.

If lack of desire to work in health care is truly not the issue, as many of the participants claimed, and the issue is instead a lack of access to health care education, especially medical school, then increasing accessibility through drastically lowering the cost of education as well as increasing the availability of seats within programs, will likely result in more workers who are willing to serve their communities in the province from which they come, especially in the rural, low-income, colonized and racialized communities that lack family doctors and other health care workers the most. This increased amount of health care workers practicing and working in the province would decrease work loads and improve working conditions for workers across the health care sector and therefore increase retention among existing health care workers.

6.2 Accessibility

Survey results, as well as answers from the emergency physician, indicate that Nova Scotians going to emergency departments for primary care instead of family doctors is a major problem. Not only does this increase stress and workloads for emergency department workers, but it also results in longer wait times for patients seeking both primary and emergency care. As mentioned in the beginning of this paper, these wait times can be so long as to be deadly as multiple patients have died in Nova Scotian ERs waiting to be treated. The survey results also indicate the closures of usually smaller rural ERs is also a major problem in the province which only compounds waiting times and lack of availability of primary care. Therefore, lack of family doctors in the

province not only affects health care worker workloads and retention, but also patient access to both primary and emergency care. The above suggestions to increase the amount of family doctors and other health care professionals in the province by opening access to poor and marginalized individuals like is done in Cuba would therefore significantly increase patient access to primary and emergency care across the province, but especially in the rural and marginalized communities which see the fewest family doctors, most ER closures, and most acute health needs and issues due to the social determinants of health related to poverty, racism, colonization, and lack of access to public health services and other amenities whether financially and/or by distance.

In addition to increased recruitment of and accessibility to potential workers both within the province at large and within rural and marginalized communities, Cuba's method of assigning recent medical graduates to the area of the country in which they are most needed for their first two years of practice as a form of repayment for the free delivery of their medical education may reinforce the province's ability to provide family doctors within and across the province on top of the priorly discussed recruitment strategies. This is a strategy that Nova Scotia has already announced it will begin implementing for graduates of paramedicine programs, promising to pay the full price of tuition for paramedicine graduates who agree to work in the province for their first four years after graduation and for the first two years for emergency medical responders, although it is not a mandatory exchange as it is for Cuban physicians. According to the Cuba expert interviewed, they were involved in discussions of implementing a similar program for medical graduates a number of years prior to this research being conducted, but that it was shot down by Doctors Nova Scotia as an infringement on the "human

rights" of physicians. Whether resistance from Doctors Nova Scotia proves to be a barrier to potential future implementation of a similar policy would remain to be seen, however, the implementation of a similar policy could be especially effective with regards to students who come to study medicine from outside of Nova Scotia, whether from other provinces or internationally, as these groups seem to be more likely to end up leaving the province to practice elsewhere, if interviews with medical students and physicians recruiters are an indication.

6.3 Public Health & Prevention

Although social determinants of health appear to be included more and more in health care program curriculums based on interview answers, it is clear that Nova Scotia is far behind Cuba in terms of incorporating social determinants of health, public health, and preventative care into its health care system and strategies. All findings and review of previous literature point to Nova Scotian health care (and Canadian health care more generally) being strongly centred around reacting to disease and injury once they arise and engaging with patients on an individualist bio-medical model of medicine. Cuba's health care system, on the other hand, is highly centred on public health and preventative care and engages with patients using a holistic "bio-psycho-social" model, based on the findings of this research. This is reflected in both the curriculum of their medical education as well as the job duties of their primary care physicians which involve tasks such as visiting the living environments of their patients and promoting healthy practices to the public at large in addition to their patients. Social determinants of health are also addressed by other aspects of Cuban government policy such as guaranteeing housing and education, subsidizing food prices, and strong focuses on eradicating social

inequities such as racism and sexism in its society – all of which were evident during my own time in the country. Adopting this approach to patient care additionally offers an avenue to better integrating mental health care into the health care system, an aspect which survey respondents identified as lacking within the current system.

Cuba has a lack of advanced medical equipment, pharmaceuticals, and general state funds due to the US embargo as well as its status as a developing nation. Therefore, a focus on preventative health care not only makes for good medicine, but also acts as a cost-saving measure, attempting to root out health issues before they occur or develop to the point where expensive intensive and high-cost treatment is needed. A stronger focus on preventative health care and public health, while perhaps requiring a certain degree of financial cost initially, is likely to save the health care system, province, and taxpayers significantly in the long run. This should be a particular aspect of Cuban health care to take example from for any government concerned with cost-efficient ways in which to improve the health care system of Nova Scotia.

A greater systemic focus on disease and injury prevention through addressing social determinants of health and greater promotion of public health is also likely to decrease workloads for health care workers across professions, given that all workers interviewed indicated that most of the cases they see could have been prevented with better public health promotion. Greater preventative care could therefore serve as another weight lifted off the back of health care workers in the province and lead to greater satisfaction and retention among them. Although most interviewees indicated that they would like to see family doctors become more involved in disease and injury prevention, such as in Cuba, if workloads did not increase. This would most likely be a difficult

change to implement in the near future given the already-intensive workloads experienced by family doctors. However, interviews with policy-makers as well as recent actions taken by the province indicate a growing strategy of collaborative primary care clinics in which multiple different health care professionals work collaboratively to provide holistic primary care. If not happening already, hiring specific public health specialists in these centres who are tasked with discussing healthy habits with patients and promoting healthy habits and policy suggestions in the wider local community could be a way in which to implement a similar strategy with Cuba without adding to the workloads of already-overburdened family doctors.

6.4 Inter-Agency Communication & Cooperation

Although both systems of health are generally publicly-funded and managed, there are stark differences in the organization of health care in both jurisdictions. In Cuba, health care is essentially entirely overseen and managed by one organization – the Ministry of Public Health (MINSAP), with all health care workers being direct employees of this government agency. In Nova Scotia, health care is of an enormously collaborative structure managed between a multitude of different, sometimes independent, organizations – NSH, DHW, the federal Government of Canada, Doctors Nova Scotia, CPSNS, Dalhousie University Medical School, Medavie, multiple collages and universities, and individual hospitals and clinics. In many ways, Cuba appears to benefit from having all of its health care system under one banner, allowing it to easily and quickly enact necessary changes and approach the system holistically, including being able to quickly and efficiently streamline public health data to the top and swiftly enact appropriate measures to ensure disease prevention and address health issues across

the country. The findings in Nova Scotia indicate that there are sometimes issues in inter-agency cooperation and communication, with some policy-makers stating the occasional need to "bulldoze" through red tape and bureaucracy in order to enact desired health care policy. The Cuban system of one singular health agency is likely also cost-efficient by saving money in bureaucratic processes and positions.

Cuba also greatly differs from Canada in that all health care workers are singularly employed by MINSAP and all hospitals and clinics are directly run by them. It is possible that a move to something closer to this model would allow for easier and quicker action on capacity-building and save individual family physicians immense out-of-pocket costs in clinic administration. Although restructuring health care in a similar way in Nova Scotia would likely be immensely difficult due to various interest groups, Canadian health care law, and the liberal capitalist economic system, making small incremental changes in this direction may be worth looking into further.

6.5 Conclusions

The theoretical framework of social causes of health and disease and structural violence were discussed earlier in this thesis. To reiterate: the concept of the social causes of health and disease emphasizes that health is more than what can be addressed by a reactive, bio-medical model of medicine and indicates that effective health care systems must take into account the biological, psychological, and sociological aspects of patient health – which includes economic and social conditions. The concept of structural violence explains how socio-economic structures can construct and maintain indirect, but very real, barriers to biological, psychological, and social health, including economic

opportunity. Learning from Cuba's approaches to recruiting from populations who face various forms of structural violence and improving their access to health care education as an integral part of that recruitment, not only removes barriers to opportunity therefore structural violence from these individuals, but also increases access to health care services to the communities from which they come, therefore removing aspects of structural violence from these communities in terms of access to health services. Additionally, adopting a health care policy centred around public health, prevention, and treating patients as "bio-psycho-social beings" necessitates addressing the social causes of health and disease, one of which is the accessibility of health services within various communities and areas.

The policy-makers and the expert on Cuban health care interviewed, as well as work from MacLeod (2006) and Marchildon (2012), make it clear that enacting new and bold health policy is not easy in Canadian and Nova Scotian political settings, due to the influence of various interest groups and health care partners. In many ways, Cuba benefitted from starting from scratch due to the overhaul of its health care system following its revolution. However, the recent announcement that the government will cover tuition costs for paramedics who agree to stay in-province for a period of time, as well as the fact that many other countries more politically and economically similar to Canada such as Scotland or Sweden have enacted policies such as providing tuition-free medical education, show that meaningful changes in the right direction are possible within a liberal capitalist framework. The fact of the matter is that the health care crisis in Nova Scotia is deadly, degrading to both health care workers and patients, and resolving it is a top priority among Nova Scotians. The latest provincial election result

made it clear that the government has a mandate to make the necessary changes to improve the health care situation in the province.

Viewing the issues of this research through the above frameworks makes it evident that health care worker recruitment, retention, primary care access, and public health and prevention are all inherently interconnected and therefore must be addressed using holistic strategies. The example of Cuba's health care system offers a number of effective examples to draw from in this regard. Through increasing access to health care education to all, access to health care services is increased to all. Through increasing access and focus to public health and disease and injury prevention, lives, costs, and human capital are all saved.

6.6 Further Research

While this research uncovered the basic aspects of Cuba's health care system from which Nova Scotia can draw from in order to heal some of its most prevalent problems, it is only a first step in this direction. If examples and lessons are to be taken from Cuba's health care system, more in-depth analysis of its specific policies and the challenges in and avenues through which similar methods would have to be implemented in the Nova Scotian setting would need undertaking. Perhaps looking back to notes taken by previous trade and medical delegations to Cuba during the Savage government could prove beneficial, as could future Nova Scotian delegations to Cuba. The relationship between the two regions has a strong history, with Cuba's first foreign consulate being opened in Yarmouth to foster a trade relationship feeding the Cuban appetite for cod and the Nova Scotian appetite for rum (Mulligan, 2016). It is likely that Cuba would be quite

welcome to expanding trade and cooperation with the province given the current trade difficulties brought about by the US embargo. If Nova Scotia is to look to Cuba for ideas to improve its own health care, it would only be ethical to return the favour in some capacity, perhaps through offering access to much-needed and life-saving medical equipment and pharmaceuticals.

Additionally, the above suggestions for improving access to health care services and education using Cuban-inspired models of recruitment and public health would likely take a number of years to see the results. However, Nova Scotia needs more family physicians *now*. The more time passes, the more patients die in emergency department waiting rooms and the more health issues go untreated. Former Dalhousie professor Dr. John Kirk makes a case for hiring physicians from Cuba for temporary terms in Nova Scotia, taking advantage of Cuba's expansive international medical outreach program (Kirk, 2023). Kirk notes that these doctors are explicitly trained for work in foreign environments and well-educated, with a training centred around the social determinants of health and preventative health care (Kirk, 2023). Utilizing Cuba's international medical outreach program could provide Nova Scotia with much-needed human capital in the short term while other policies to build the province's own capacity take effect. It would also provide an additional temporary revenue stream for the financially-strangled country.

While this study specifically focused on human capital capacity-building and access to primary and emergency care in Nova Scotia through looking to Cuba for potential improvement ideas, there were two issues in the province's health care system that were prevalent in the study findings that mostly fell outside the purview of this

research. These were issues regarding long-term care and charting. Health care worker respondents frequently cited mismanagement of long-term care as an issue which impacted their workload and working conditions, such as hospital beds being filled by those who would be better suited by long-term care facilities which are either unavailable or inaccessible to those patients. Heavy workloads in charting was also a frequently-cited grievance that respondents claimed contributed to stress and overworking. While these two issues evidently impact retention of workers through contribution to heavy workloads, they were not issues covered by the initial literature review and research regarding Cuba's health care system and thus were not featured within this research. Cuba may also offer solutions/ideas through which to address these issues as well, or perhaps other countries/jurisdictions do. Regardless, searching for innovative solutions to issues in charting and long-term care should certainly be subjects of future research in cross-system comparison and health care system improvement.

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