ABSTRACT

Divergent Pathways of Development:

Infant Mortality in British Guiana and Barbados, 1834–1966

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Director: Dr. Curt Nichols, Ph.D.

This thesis explores the development of health-related policy in British Guyana and Barbados, two of the first English-speaking colonies in the Caribbean to gain independence from Britain. Following emancipation in 1834, British Guyana seemed to have many developmental advantages over Barbados. However, by independence in 1966, health conditions in Barbados were better than in Guyana. Using infant mortality data as a measure of community health, this thesis examines how labor and economic factors, political structures, and stability directly influenced health in these developing countries. Ultimately, health development in Guyana was slowed by ethnic and class conflict, economic isolation, and ineffective governance. Meanwhile, as Barbados adopted democratic values and leaned on education, international partnerships, gender inclusivity, and economic diversification, its health went from "worst to first." Overall, this thesis identifies factors that directly influenced the development of healthcare in Guyana and Barbados. By doing so, it argues that developing countries ought to utilize a holistic approach to sustainably improve health outcomes.

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Divergent Pathways of Development:

Infant Mortality in British Guiana and Barbados, 1834 – 1966

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By

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I want to start off by thanking Dr. Curt Nichols, my thesis advisor. Dr. Nichols was instrumental in teaching me how to find and use good sources, how to organize convincing arguments, and how to design this project. His honest feedback motivated me to produced better work and was invaluable to the project. I am also grateful for the support of Dr. Jason Pitts and Dr. Dave Bridge, who sat on my thesis committee. Working with Dr. Pitts during my first three years at college sparked my interest in infectious diseases and healthcare in developing countries. That interest, in addition to the skills and information I learned in classes with Dr. Dave Bridge, Dr. Emily Smith, Dr. Sergiy Kudelia, and Dr. Cheolho Sim, further motivated and enabled this project.

Along this whole journey, my friends and family have supported me with prayers and encouragement. When I was discouraged or behind, my mom and dad were faithful to pray for me and offer their support and encouragement. My brother Lincoln challenged and pushed me to produce better work throughout the editing phase. During my late nights working, my little sister Christina and friend Lindsey Tharp cheered me on with coffee, prayers, and moral support—I am grateful for their friendship and thoughtfulness. I also want to thank my fellow Honors and University Scholars friends—Kayal Parthiban, Caroline Hughes, Jess Clark, and Alex Hale—who reviewed my work, held

me accountable to deadlines, and made late night studying much more enjoyable. Everyone's support throughout this process encouraged me to complete this project to the best of my ability for God's glory.

While writing this thesis I was continually reminded of the verses in Colossians 3:23-4 "Whatever you do, work at it with all your heart, as working for the Lord, not for human masters, since you know that you will receive an inheritance from the Lord as a reward. It is the Lord Christ you are serving" (NIV). Ultimately the work I put into this project was enabled by His strength and was completed for His glory. I am daily reminded of God's faithfulness and his sustaining grace, and I am thankful for challenges, like this thesis, for stretching me to become a better student, Christian, and overall person.

DEDICATION

To my brother Lincoln

For always keeping things real & for keeping me honest

LIST OF TABLES AND FIGURES

Table 1: Comparative Infant Mortality Average Rates in Guyana and Barbados

Years	Guyana	Barbados
1926 ± 2	161.3*	265.8*
1966 ± 2	57.3**	49.4**
2015 ± 2	26.7**	11.9**

* Beckles, H. M. (n.d.). *A History of Barbados" From Amerindian Settlement to Caribbean Single Market* (2nd ed.). Cambridge University Press. Page 234

** Knomea, Eldridge Company (2021). [Infant Mortality Rates Guyana and Barbados]. Unpublished raw data.

Table 2a: Table of Infant Mortality Rates and Percent Change of the Rates 1912-1966

Year	Infant Mortality Guyana	% Change	Year	Infant Mortality Barbados	% Change
1912	189	----	1912	416	----
1914	176	-6.87	1914	403	-3.125
1916	190	7.95	1916	271	-32.75
1922	185	-2.63	1922	287	5.90
1926	159	-14.05	1926	314	9.40
1928	184	15.72	1928	331	5.41
1930	146	-20.65	1930	251	-24.16
1932	139	-4.79	1932	248	-1.19
1934	168	20.86	1934	256	3.22
1936	120	-28.57	1936	198	-22.65
1938	165	37.5	1938	222	12.12
1940	104	-36.96	1940	180	-18.91
1942	96	-7.69	1942	175	-2.77
1944	135	40.62	1944	171	-2.28
1950	71	-47.40	1950	125	-26.90
1952	81	14.08	1952	145	16
1954	57	-29.62	1954	109	-24.82
1956	67	17.54	1956	97	-11.00
1958	57	-14.92	1958	82	-15.46
1960	66.9	17.36	1960	60	-26.82
1962	62.4	-6.72	1962	61.1	1.83
1964	59.1	-5.28	1964	54.4	-10.96
1966	57.1	-3.38	1966	49.1	-9.74

Barbados 1912-1928: Beckles, H. M. (n.d.). *A History of Barbados" From Amerindian Settlement to Caribbean Single Market* (2nd ed.). Cambridge University Press. Page 234

Barbados 1928-1960: Fletcher, L. P. (1992). The Evolution of Poor Relief in Barbados 1900-1969. *Caribbean Studies*, *25*(3/4), 280

Guyana, 1912-1960: Mandle, J. R. (1970). The Decline in Mortality in British Guiana, 1911-1960. *Demography*, *7*(3), 300–315. https://doi.org/https://doi-org.ezproxy.baylor.edu/10.2307/2060149

Barbados and Guyana 1960-2015: Knomea, Eldridge Company (2021). [Infant Mortality Rates Guyana and Barbados]. Unpublished raw data.

Table 2b: Table of Infant Mortality Rates and Percent Change of the Rates 1968-2018

Year	Infant Mortality Guyana	% Change	Year	Infant Mortality Barbados	% Change
1968	55.9	-2.10	1968	44.9	-8.55
1970	55.3	-1.07	1970	40.9	-8.90
1972	55	-0.54	1972	37	-9.53
1974	54.7	-0.54	1974	33.3	-10
1976	54.3	-0.73	1976	29.7	-10.81
1978	53.7	-1.10	1978	26.4	-11.11
1980	52.9	-1.48	1980	23.6	-10.60
1982	52.1	-1.51	1982	21.4	-9.32
1984	51.1	-1.91	1984	19.9	-7.00
1986	49.9	-2.34	1986	18.7	-6.03
1988	48.4	-3.00	1988	17.5	-6.41
1990	46.5	-3.92	1990	16.1	-8
1992	44.5	-4.30	1992	14.9	-7.45
1994	43.4	-2.47	1994	14	-6.04
1996	40.5	-6.68	1996	13.5	-3.57
1998	38.8	-4.19	1998	13.4	-0.74
2000	37.1	-4.38	2000	13.7	2.23
2002	35.6	-4.04	2002	14.1	2.91
2004	34.2	-3.93	2004	14.3	1.41
2006	32.9	-3.80	2006	14.2	-0.69
2008	31.7	-3.64	2008	13.9	-2.11
2010	30.6	-3.47	2010	13.5	-2.87
2012	29.4	-3.92	2012	13.1	-2.96
2014	28.1	-4.42	2014	12.6	-3.81
2016	26.7	-4.98	2016	12.7	0.79
2018	25.2	-5.61	2018	12.1	-4.72

Barbados and Guyana 1960-2015: Knomea, Eldridge Company (2021). [Infant Mortality Rates Guyana and Barbados]. Unpublished raw data.

Table 3: Elements of National Identity Present in Guyana and Barbados in 1966

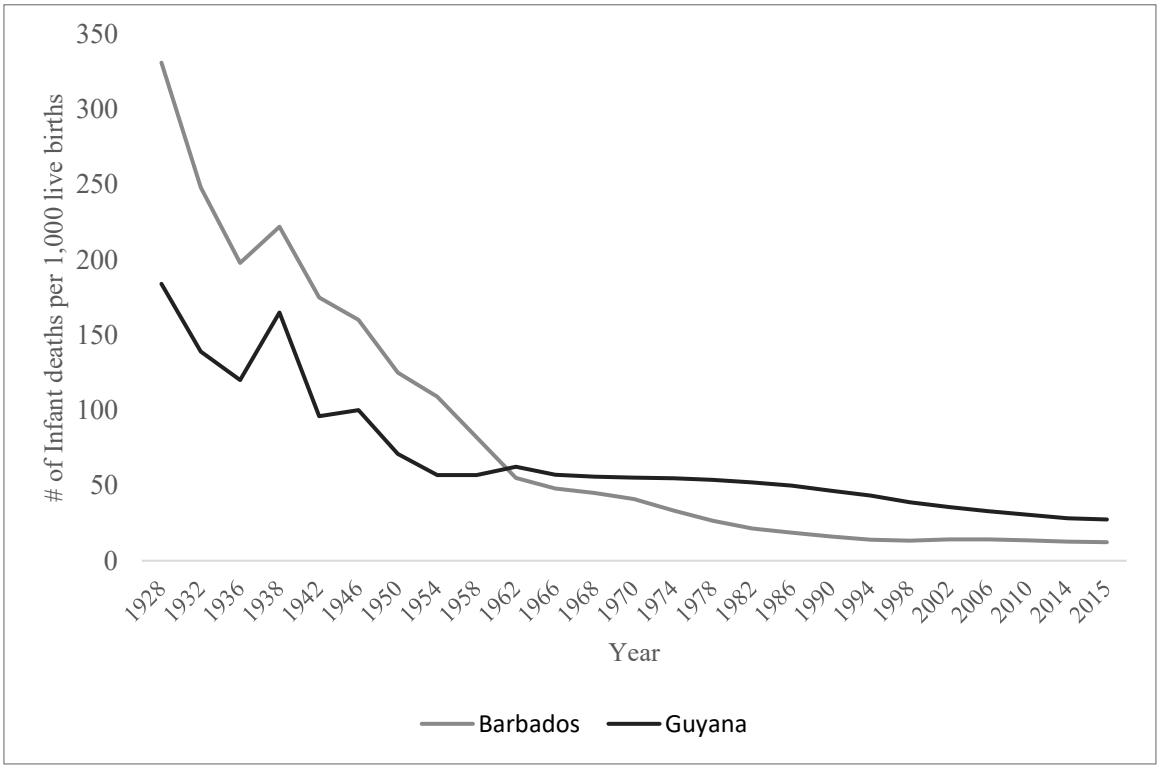
Elements of National Identity	Components	Guyana	Barbados
Civic Identity	Citizenship	Yes	Yes
	Territory	Yes	Yes
	Will & Consent	No	Yes
	Political Ideology	Yes	No
	Institutions & laws	Yes	Yes
Cultural Identity	Religion	No	Yes
	Language	No	Yes
	Tradition	No	Yes
Ethnicity	Ancestry	No	Yes
	Race	No	Yes

Grotenhuis, R. (2016). Nation-Building: Identity and identification, process and content. In *Nation-Building as necessary Effort in Fragile States* (pp. 109–124). essay, Amsterdam University Press. Page 127

Table 4: Summary of Factors at Play in Guyana and Barbados at Independence in 1966

Independent Variable	Factors	Guyana	Barbados
Labor & Economics	Open / Closed Economy	Closed	Open
	Investment in Social Programs	Small	High
	Economic Diversification	Little	Some
	Workforce	Male-led	Female-led
Political Stability & Structures	Democratic / Communist Values	Communist	Democratic
	National Identity	Weak	Strong
	Effective Structure	No	Yes
	Stable / Violent	Violent	Stable
	Trust in Government	Low	High

Figure 1: Infant Mortality Rates in Guyana and Barbados 1928-2015



Beckles, H. M. (n.d.). *A History of Barbados" From Amerindian Settlement to Caribbean Single Market* (2nd ed.). Cambridge University Press. Page 234

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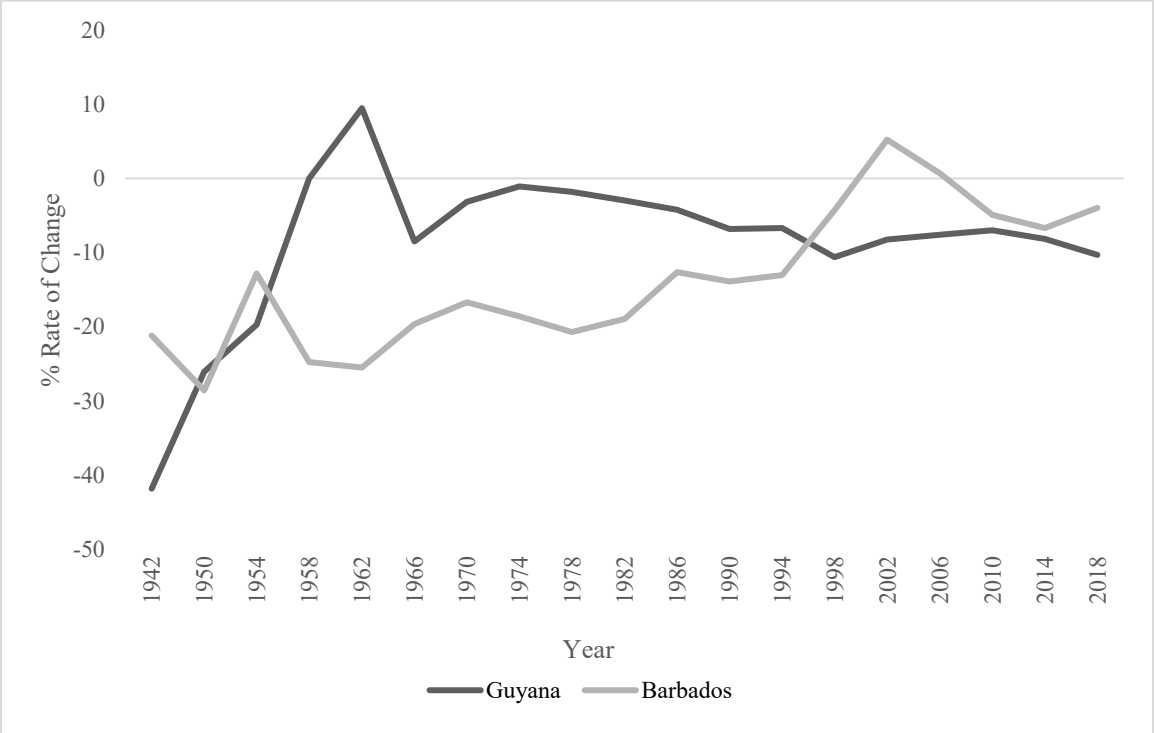
Fletcher, L. P. (1992). The Evolution of Poor Relief in Barbados 1900-1969. *Caribbean Studies*, *25*(3/4), 280

Mandle, J. R. (1970). The Decline in Mortality in British Guiana, 1911-1960. *Demography*, *7*(3), 300–315. https://doi.org/https://doi-org.ezproxy.baylor.edu/10.2307/2060149

Figure 2: Infant Mortality Percent Rate of Change in Guyana and Barbados, 1942-2018



Knomea, Eldridge Company (2021). [Infant Mortality Rates Guyana and Barbados]. Unpublished raw data.

Fletcher, L. P. (1992). The Evolution of Poor Relief in Barbados 1900-1969. *Caribbean Studies*, *25*(3/4), 280

Mandle, J. R. (1970). The Decline in Mortality in British Guiana, 1911-1960. *Demography*, *7*(3), 300–315. https://doi.org/https://doi-org.ezproxy.baylor.edu/10.2307/2060149

CHAPTER ONE

Introduction

This thesis explores the development of health-related policy in British Guyana and Barbados, two of the first English-speaking colonies in the Caribbean to gain independence from Britain. Following emancipation in 1834, British Guyana seemed to have many developmental advantages over Barbados. However, by independence in 1966, health conditions in Barbados were better than in Guyana. Using infant mortality data as a measure of community health, this thesis examines how labor and economic factors, political structures, and stability directly influenced health in these developing countries. Ultimately, health development in Guyana was slowed by ethnic and class conflict, economic isolation, and ineffective governance. Meanwhile, as Barbados adopted democratic values and leaned on education, international partnerships, gender inclusivity, and economic diversification, its health went from "worst to first." Overall, this thesis identifies factors that directly influenced the development of healthcare in Guyana and Barbados. By doing so, it argues that developing countries ought to utilize a holistic approach to sustainably improve health outcomes.

By way of introduction, Britain began colonizing parts of the Caribbean in the seventeenth century. In doing so, it launched a project of exploitation and development that shaped the fates of people all around the region. From the time of its first settlement through the 1930s, Britain exploited its Caribbean colonies. The British both consciously and invertedly shaped the ethnic compositions, cultural values, economic structures,

political systems, and community healthcare regimes in the relentless pursuit of profit. As a result, factors like high infant mortality were secondary concerns.

Following the Second World War, Britain began decolonization by slowly transferring power to the local governments. The economic and political developments leading up to independence (1930s-1960s) greatly influenced community health. There were great improvements. Yet, some countries still experienced different pathways of healthcare development—insofar as infant mortality rates are concerned. This is surprising, given these countries, like Guyana and Barbados, largely share similar histories, environments, governments, and economies. It is further perplexing given that Guyana seemed to enjoy many comparative advantages over Barbados, and indeed had far better infant mortality rates in the beginning, yet it managed to become the regional laggard. Meanwhile, Barbados went from "worst to first" in regional infant mortality rates.

In a very real sense, this thesis can be understood as an effort to unravel the puzzle of how Guyana and Barbados' pathways of development diverged so sharply. Studying the factors that contributed to divergent health outcomes in these developing countries can provide today's government officials and healthcare administrators in developing countries key insights into future healthcare reform efforts.

Currently, 46 under-developed and 152 developing countries fail to effectively address the severe health needs of their citizens (United Nations, 2020), (Developing Countries, 2020). The United Nations *Sustainable Development and Millennium Development Goals* discuss that as a country develops, the health of its citizens typically

improves as well. The development goals explicitly state that improving health and healthcare access is essential to eliminating poverty, prospering, and advancing as a country (United Nations, 2020). Because undeveloped and developing countries typically have a larger burden of disease, they typically must invest more for health provisions. However, recognizing the importance of improving health in developing countries is just the first step in actually doing so. The second, is to understand how various social, political, and economic policies can also transform community health for the better or for the worse.

Today, individuals, organizations, and governments can try to improve community health through various approaches. Some seek to eradicate tropical diseases through vaccine efforts, and others attempt to reduce the burden of malnutrition by providing free school lunches. Oftentimes, these health initiatives lose support overtime, or do not produce measurable improvements quickly enough to justify the expenditure. However, current developmentalist have begun to utilize a "One Health" or holistic approach to health initiatives. This approach recognizes the importance of health to development, understands the various factors influencing health, and generates solutions.

When examining past development efforts, it is important to evaluate the agricultural, economic, ecological, and political factors that contributed to community health successes and failures. However, simply conducting single nation studies of development processes does not fully equip healthcare providers and policy makers to design economic plans or to reform government structures with the goal of improving health. In order to provide some control in determining the most influential factors that measurably improve health, it is preferable to conduct a comparative case study.

Because of the British Colonial activity in the Caribbean, many of the countries there have strong similarities and allow for a "most similar" type comparison. Guyana and Barbados specifically make for an effective comparison for healthcare development for the following reason. Both, these countries shared many features, like colonial history, small economic size, external dependence, and poor labor conditions, among others.

The Guyana / Barbados pairing is, however, even more fruitful for a second reason. Although similar in many aspects, they diverge on the outcome of interest in this study—infant mortality. Thus, despite the many strong similarities, they present an "unexpected" or "least likely" case pairing; with Guyana going from top to bottom and Barbados going from worst to first. The pairing provides control via case similarity, which allows for a thorough investigation of the key differences that led to the divergent health outcomes

With the goal of informing current healthcare policy, this project compares the impacts of several factors on healthcare development in Guyana and Barbados from 1834-1966. The independent variables of *labor and economics* and *political structures and stability* will be studied for the impact they have on this thesis' dependent variable, infant mortality.

The rest of this introductory chapter accomplishes the following. It examines how infant mortality statistics are indicative of community health and introduces Table 1. Next, it establishes Guyana and Barbados as effective countries for comparison due to their many similarities and disparate health outcomes. Finally, this chapter will outline the independent variables: labor and economics, and political structure and stability.

Section 1: Infant Mortality

Infant mortality is a strong gauge of the effectiveness of healthcare reforms. This is because it is a consistent measure, there are accurate data sets and records of it, and because it is generally indicative of community health.

Some developmental studies today describe population health using life expectancy, disability adjusted life expectancy (DALE), or disease prevalence, but those measures are insufficient for this study for the following reasons. First, life expectancy is an estimated measure. For example, in Barbados the life expectancy for infants born in 1980 was 72.2 years, assuming the environment remains the same for the duration of their life (Ortiz-Ospina, 2017). This metric is an estimation and not clear enough for this study. Further, life expectancy is a poor measure for this study because the earliest and most reliable records of life expectancy in both countries begin in 1960 (Poliacof, 2020). It is necessary to have data from at least the beginning of the twentieth century in order to understand how colonial development from 1834-1966 impacted health. Although DALE is best measure of population health in the fields of public health and epidemiology, there is no data for this metric dating back to the early-twentieth century (Reidpath, 2003: 345). Further, measures like obesity, heart disease, and infectious disease prevalence are also occasionally used in studies. However, establishing a correlation between heart disease and quality of development, for example, would be nearly impossible because of the inconsistent data, changing medical diagnosis, and outside variables (Gaziano, 2010; 73-4).

Infant mortality rates (IMR) are effective measures of community health and will be used to evaluate the impact of various development efforts on health in Guyana and Barbados. This is an effective measure for the following reasons. First, the infant mortality rate is defined as "the number of deaths in children under 1 year of age per 1000 live births in the same year…" (Reidpath, 2003: 344). Infant mortality is based on two numbers, infant deaths in a year, and the total amount of live births in that same year; therefore, it is the average death rate per 1000 live births. This statistic is not an estimate and is reliably and easily measured. Second, infant mortality is generally reflective of the population health (Reidpath, 2003: 345). Many factors, like women's rights and health, nutrition, health education, social support, labor conditions, living conditions, stress, and stability, among many other factors, can influence infant viability. Because infants are much more sensitive to infection, malnutrition, dehydration, exposure, and other factors, their ability to survive is indicative of the health and well-being of their mothers (McIntosh, 2007; 198). This measure provides a look into the quality of life, social support, and general health of a country.

The dependent variable, infant mortality, trends differently in Guyana and Barbados as seen in Table 1. In Guyana, by the 1890s, the infant mortality rate was 213.14 per 1,000 live births (Aickin, 2001; 160). When the British Commission surveyed living conditions and health in Barbados in the early 1900s, it recorded the infant mortality rate as 268 per 1,000 live births—about 30% (Fletcher, 1992: 257-63). By 1926, Guyana had a rate at 161.3 per 1,000 live births, while Barbados had a rate at 265.8 per 1,000 births. By independence in 1966, both country's infant mortality rates were nearly identical, with Barbados' being slightly lower. Although there were many

similarities at the point of independence, the rate of decrease in each country's infant mortality rates (Table 2a-b and figure 2) demonstrates how Barbados was able to leverage certain factors to its benefit, while Guyana was unable to, to its detriment. As of 2018, Guyana has one of the worst rates in the English-speaking Caribbean at 24.4 per 1,000, just ahead of Dominica, and Barbados has one of the lowest infant mortality rates in the Caribbean at 11.3 per 1,000 (Poliacof, 2020).

Table 1 attempts to present a "snapshot" of the health conditions during each time period. As is demonstrated in this table, Barbados began with the worst health conditions but emerged with the best conditions and lowest infant mortality rates. Guyana, on the other hand, began with poor conditions, improved dramatically, then stagnated, leaving Guyana with poor health conditions and the second highest infant mortality rate in the Commonwealth Caribbean. For larger visualizations and tables of infant mortality, see Figure 1 and Table 2a-b. Overall, this thesis will explain the changes in infant mortality rates through the independent variables in Barbados and Guyana specifically.

Section 2: Establishing the Comparison, Guyana and Barbados

This thesis is able to isolate the specific socio-economic and political factors that influenced infant mortality rates, because of the stark similarities between Guyana and Barbados control for other historical and geographic factors. Britain also granted both countries independence in 1966, at which time they both had surprisingly similar health conditions. Overall, their shared history of colonialism and policy, similar economic standing, demographics, and poor health and living conditions make them strong candidates for comparison.

History of Colonialism

Britain established two different types of colonies: farm and exploitative colonies (Glasgow, 1970: 20). Farm or "formal" colonies, where colonies that Europeans generally inhabited, while exploitative colonies, where colonies mostly inhabited by laborers and few Europeans. Both Barbados and Guyana were considered exploitive colonies. Britain colonized Barbados in 1627 and took control of Guyana, which was previously colonized by the Dutch, in 1674 (Watson, 2011).

From their colonization until the 1930s, Britain was mostly concerned with production and profits. It effectively treated its colonies as companies, defined as "a society or association of persons, in considerable numbers, interested in a common object, and uniting themselves for the prosecution of some' commercial or industrial undertaking, or other legitimate business" (Black, 1951: 352). The major concerns of the colony surrounded labor, sugar yields, and productivity. Government structures were in place to protect the plantation owners and investors in the region. Investments in infrastructure, healthcare, or other "nation-building" activities were done in order to maintain law and order and to increase production of cash crops and profit the investors (T.C., 1943:141). Treating Barbados and Guyana as sugar companies dramatically shaped their societies and futures.

As can be understood today, Britain's attempt at economic development struggled, because it lacked consideration for human development. This created various societies, like Guyana and Barbados, that endured the trauma of slavery and then intense poverty. As a result, both colonies suffered from infant mortality rates of around 40% in the 1800s (Fletcher, 1992: 257-63).

As stated earlier, the British valued their colonies for their economic output and raw materials. Very little development occurred until the 1930s:

> "The British Government adopted a "laisser-faire" attitude toward the economic development of the colonies. The chief aim appears in many cases to have been the maintenance of law and order in the colony in order that the trading and mining companies should operate without interruption in their work of ensuring a steady flow of vital raw materials to this country." (T.C. 1943: 140)

The result of this policy was poor sustainable economic development and makeshift political development. The democratic values of the common good, accountability, and human prosperity were viewed as secondary goals.

Following a series of riots in the 1930s and WWII, Britain changed its approach towards its Caribbean colonies. After receiving the results and recommendations of the Moyne Commission, Britain became acutely aware of the dire conditions and uncertain futures of its colonies. With the end of World War Two and the nudging of the United Nations, colonialism grew unpopular and unmanageable. As a result, Britain adopted a "trustee" approach and sought a phased decolonization process that first developed its colonies, and then transitioned them to self-government and eventually independence (Chamberlin, 2010: 59-60). Britain encouraged Guyana and Barbados to begin self-governance under British oversight from 1951-1966, and in 1966 Britain granted both countries independence from the British Empire. British policy towards both countries was very similar, but Barbados and Guyana had different local government structures. Those differences will be relevant to this study.

Economic Standing

Originally outfitted for coffee and cotton, British Guiana expanded to the sugar industry in the early 1800s (Great Britain, 1920: 23). Despite its rich natural resources, following emancipation in 1834, its economy fell into turmoil (Merrill, 1992; Chapter 12). In order to drive down the price of labor, Guiana imported indentured servants and cheap labor. This served the sugar industry, and later allowed for the development of the Bauxite industry. Britain invested in railways, roads, and effective canals for crop transport (Great Britain, 1920: 40,52). However, by the early 1900s over 42% of the irritable land area was used to grow and harvest sugar. And by independence in 1966, Guyana, like Barbados remained a single commodity economy based on sugar (Merrill, 1992: Chapter 12).

Barbados' innovative approach and plantation structure quickly made it one the wealthiest and most densely populated islands in the Caribbean by the mid-seventeenth century (Meditz, 1987). The wealthy white plantation owners capitalized on cheap labor supply and continued producing sugar as its main commodity until the 1950s, when it began diversifying its economy. Starting in the early twentieth century Barbados began industrializing with the expansion of electricity, plumbing, and housing projects. These improvements later attracted more foreign business deals and private investments (Clayton & Potter, 1996: 179).

As both countries approached independence, they found themselves in remarkably similar economic positions. In the 1950s both Barbados and Guyana's per capita income ranged from US$150 to US$200. Both countries similarly had sugar-based economies and infrastructural developments. Despite Guyana's slight advantage to its abundance of

land and natural resources, both countries approached independence from a similar starting point. (DaCosta, 2007:18-19)

Demographics and Social Volatility

British Guiana was often called "the land of six people" because of its diversity and strong ethnic divisions (Glasgow, 1970; 3). Although slavery was officially abolished in 1834, plantation owners retained workers and perpetuated the oppressive systems in place (Great Britain, 1920; 25). In its attempt to lower wages and improve the economy through creating a labor surplus, Guyana imported indentured servants and was open to immigration (Khemraj, 2015; 2). By 1966 Guyana's population composition was: 51% East Indian and 31% African, with the rest being a mixture of Chinese, Portuguese, Amerindians, and Europeans (Landis, 1972: 63). As the Georgetown Riots of 1905 demonstrate, most resentment was directed towards the white ruling elite (Trotz & Peake, 2000: 214). Racial tensions further grew with the formation of racially divided labor and political parties. Each demographic considered the other as competition for jobs, social status, and political power. These racial tensions bled over into gender differences as well.

Women formed the minority in Guyana. This "female shortage" came about as a result of male worker-oriented emigration policy, and it reinforced an already patriarchal society (Trotz & Peake, 2000: 202-4). By 1917, there were just 81 females to every 100 males (Aickin, 2001:158). Further, while female laborers were favored in Barbados for their low wages, unemployment rates for females far exceeded those for males in Guyana (Trotz & Peake, 2000; 205). This led to a heavy emphasis on the woman's place in the

home and out of the labor market (Trotz & Peake, 2000: 219). Overall, both Barbados and Guyana experienced racial tensions and gender imbalances, but the differences are important for future study.

Although known to have a so-called subservient culture, racial tensions existed between the ruling white plantation owners and black laborers in Barbados. Barbados racial composition was based less on cultural heritage and more on the skin color. The composition in 1946 for example was 5.1% white, 77.3% black, and 17.6% colored or mixed (Nag, 1971; 111). Despite having a black majority, the lightness of one's skin was an "external marker of status" among Barbadians—or "Bajans" as they sometimes refer to themselves. Black Barbadians experienced severe discrimination following emancipation. However, in 1930 Clement Payne sparked a cultural awakening that led to the race riots of 1937 (Chamberlin, 2010: 110). These riots demanded better labor conditions and wages, among other things. The tension between blacks and whites gradually subsided leading into the 1950s, and by 1966 Barbados leadership and government was proportionally representative of the island's population (Chamberlin, 2010: 119).

Although it did not have multi-dimensional racial tensions like Guyana, Barbados had interestingly imbalanced gender demographics. Due to high amounts of male emigration, there was a growing female majority on the island. Estimates of net emigration show that nearly 69,000 men and 34,500 women left Barbados from 1861-1921 (Nag, 1971: 124). Though this might not seem like a significant difference, it resulted in the fact that women composed 62% of the agricultural and 88% of the domestic laborers in 1921 (Chamberlin, 2010: 51). Further this high male to female ratio

destabilized the traditional family unit in Barbados and affected population growth and societal norms heavily (Nag, 1971: 132-5).

Living and Health Conditions

Up until the mid-twentieth century, Guyana and Barbados had alarmingly poor living conditions and high infant mortality rates. British Guiana experienced very poor conditions. Large cities lacked sanitation and waste removal systems until the late 1920s, when drainage systems and septic tanks were introduced to preserve foreign business connections (Barros, 2003: 68). Conditions in the cities were particularly unhealthy, but in rural areas, Guyanese experienced much better standards of living. With land, many were able to operate small gardens and farms to supplement their income and improve nutrition. During the 1880s, infant mortality rates in the "country" averaged 168.9 per 1000 births, while in the city of Georgetown they averaged 369.4 per 1000 births, which is comparable to rates in Barbados (Aickin, 2001: 160). Further, the national infant mortality rates stagnated until 1926, indicating a lack of improvement. Sadly, although everyone could acknowledge the poor living conditions, the British showed indifference towards it (Barros, 2003: 71).

Such was also the case in Barbados. In 1913 a British commissioner surveyed the health and sanitation conditions in the West Indies. During his journey to Barbados, he remarked on the poor living conditions, estimating that over 50% of the population suffered from hookworm infection. With open sewage systems, low wages, little food, and dirt floored huts for homes, the working class suffered from anemia, malnutrition, among other conditions (Wickliffe, 1913: 14-6). In 1907 the reported infant mortality in

Barbados was 302 per 1,000 births, and it increased to 416 per 1,000 in 1912 (Fletcher, 1992: 257-63). Royal commissions reiterated the desperate need for poverty relief and assistance through the 1940s, and gradually changes were made to improve the economic standing, living conditions, and health of the country.

Barbados and Guyana share a history of British colonialism, and they were both subject to similar ruling ideologies and policies. Both countries had small, single-commodity economies, experienced racial tensions, had gender demographic imbalances, had poor living conditions, and had high infant mortality rates. Despite these strong similarities, each country had drastically different infant mortality rates by the time of independence. The key differences in labor and economics and government structure and stability contributed to these disparate health outcomes.

Section 3: Independent Variables

With infant mortality established as the dependent variable and some variables controlled for via the most-similar case design, the two independent variables studied in this thesis are *labor and economics* and *political structures and stability*. An initial glance at these variables would suggest that Guyana was more likely than Barbados to emerge with better health outcomes because of its abundance of natural resources, early infrastructural investments, strong labor force, and adaptive government. However, these advantages did not hold and were undermined by Guyanese ethnic and class conflict, economic isolation, and ineffective governance. Importantly, Bajans also came to rely more heavily on democratic values, educational efforts, international partnerships, gender inclusivity, and economic diversification in their development. This section will explain

those variables and then establish the general relationship between *labor and economics*, *political structures and stability*, and infant mortality rates.

Labor and the Economy

Labor conditions and occupational type heavily impact the health of communities in Guyana and Barbados through three notable ways. First, agricultural work leaves workers more susceptible to infectious disease, heat exhaustion, and higher nutritional demands. As the type of work transitions from agriculture to industry or service, the health risks dramatically shift. Workers, who were previously susceptible to physical injury, anemia, neurological issues, recurrent mosquito-transmitted fevers, become more at risk of heart disease or diabetes (Szreter, 2004: 75). Secondly, the treatment of laborers, or the workplace conditions, greatly influences health. Low wages, few benefits (like healthcare), and few work breaks wear down laborers and can be especially damaging to pregnant or breast-feeding mothers as well as the elderly. Finally, the amount and type of people composing the labor pool contribute heavily to the development of labor policy. Labor surpluses or deficits can determine wages and immigration and emigration laws. Those factors influence the financial stability of different communities and individuals. Additionally, gender demographics in labor also affect community health and development. For example, in countries where women compose a large portion of the labor pool, childcare and infant health tend to be more prevalent issues.

In general, as the GDP increases, so does the general prosperity and health of a community. A 1993 study of developing countries found that the economy influenced health in the following ways:

> "….as average incomes rise people can purchase relevant social goods and services which enhance health and nutrition, lower mortality rates and expand life expectancy…. economic growth only matters if used to finance suitable public services which suggest economic growth leads to better provision of social services." (Craigwell, 2012: 5)

A poor economy is associated with high unemployment and extensive poverty. Unemployment and poverty directly affect the health of a community through the poverty trap. People in poverty are more likely to live in unhealthy environments and are often subject to hostile social stigmas. These factors along with increased risk of disease, lack of education and economic opportunities, and a general sense of helplessness all contribute to the cycle of poverty (Guillermo, 2006: 6). Because poverty can make one more susceptible to disease, and disease can lead to poverty, many become trapped in poverty and sickness (Hotez, 2013:5).

Income inequality and extensive poverty are notable economic issues as well. Many developing countries struggle to exit this "cycle of poverty." Poverty makes one vulnerable to the harshest diseases and infections, which increases one's exposure to traumatic events and decreases one's ability to work, go to school, or support a family. Stigmas about certain diseases and poverty itself often estrange the poor from the greater society (Brand, 2014:18-9). Overall, the poverty trap prevents individuals from improving their economic station and makes them more susceptible to disease. Modern research has demonstrated how the "bottom billion," the poorest proportion of the world's population, suffers from one or more infectious diseases in addition to poor

nutrition, dehydration, and increased risk for physical injury (Hotez, 2008: 10). Overall, labor conditions, economic health, and poverty heavily influence the health and potential of a country.

Political Structures and Stability

Nation-building efforts attempt to establish effective and legitimate government, and as various developmentalist cite, there are foundational elements to keep in mind while establishing government structures. Some of the elements are: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption (Kaufmann, 2010). Regardless of the type of government established, these elements must be present, to an extent to allow for development and growth. Without these elements, establishing social programs, funding hospitals, providing education, and growing the economy becomes increasingly impossible.

Political values and their resulting structures determine outcomes. Outside of those foundational elements, political values and ideology shape domestic and international policy priorities. Generally, democratic values like liberty, the common good, diversity, and trust motivate the prioritization of citizen's safety, individuality, and opportunity. Communist values like equity, austerity, and efficiency generally motivate the prioritization of income equality, conformity, and centralization (Berkowitz, 2020). Values and ideology can profoundly shape health outcomes by setting the national priorities. Further, representation increases perceived government legitimacy and also impacts political stability and priorities. Finally, government bureaucracy can either

undermine national initiatives through corruption and ineffectiveness, or it can bolster them.

The stability and effectiveness of a government can also impact health outcomes. Governments can either find themselves in vicious cycles, with low representation and accountability or in virtuous cycles, with high representation and accountability (Acemoglu & Robinson 2012: 306). Destabilizing events, new policies, or major transitions allow countries to escape vicious cycles or become more fully entrenched in them. With high levels of representation and strong accountability countries in virtuous cycles tend to experience economic, social, and political stability. Stability is crucial to developmental efforts because it allows the government to focus on developing new initiatives and plans rather than on salvaging. They can better provide for the changing needs of its citizens and garner more respect and support from international partners. Overall, the labor and economics and political structures and stability, influence community health, as reflected in infant mortality rates.

Section 4: Summary of the Rest of the Thesis

This project compares developmental factors of *labor and economics* and *political structures and stability* on community health in Guyana and Barbados from 1834-1966. The independent variables will be examined in terms of their effects on the dependent variable, infant mortality. This introductory chapter defined the dependent variable of infant mortality and described how Guyana and Barbados will provide strong material for comparison. Because infant mortality is indicative of societal health it will be considered in terms of the two independent variables. This project can be summarized as follows.

Chapter 2 examines the effects of both independent variables on health in Guyana from 1834-1926. Highlighting how ethnicity, gender, economic markets, and a British government structure slowed development and created poor health conditions. Chapter 3 examines Barbados from 1834-1926, with a specific emphasis on how the oppressive systems and government in place created a subservient labor population, which endured unbelievable hardship and suffered even worse health conditions. Chapter 4 looks at Guyana from 1926-1966. After discussing the civil unrest during the 1930s, this chapter examines each independent variable's impact on the underwhelming improvement in health during that time. Chapter 5 explains the variables in Barbados from 1926-1966, explaining the economic, labor, political factors that allowed for marked improvements in health. In Chapter 6, this thesis will conclude with a brief discussion of the conditions in Guyana and Barbados today. It will highlight the critical points that led to the general health failures in Guyana and particular successes in Barbados. After discussing future areas of research in political theory and poverty studies, this chapter will advocate for health professionals, organizations, and developing countries to utilize a holistic approach to sustainably improve health outcomes.

CHAPTER TWO

Post-Emancipation Development in British Guiana, 1834-1930

Introduction

Leading up to the 1930s, when labor riots spread around the West Indies, Britain exploited its colonies, treating them more like companies than countries. Nation-building activities were not considered necessary to increasing production and maintaining a labor force. However, as Britain focused on growing Guyana's export economy, it neglected its human and political development, creating a desperate colony filled with hostile citizens.

This chapter will first discuss Britain's economic development in Guyana, and how the demographic changes post-emancipation in 1834 created a segmented society, rife with conflict. Without a unified front to advocate for health reforms, significant development and improvements in public health came slowly (Grotenhuis, 2016: 110). Better nutrition in rural communities, and labor rights, which created higher paying jobs, accounted for many of Guyana's health improvements. Additionally, a mass gender imbalance, due to imported male laborers, allowed mothers to stay at home and care for children, which significantly reduced strain, malnutrition, and decreased infant mortality rates.

Next this chapter will explore how Britain's "Laisser-Faire" approach to developing political structure in Guyana (T.C., 1943: 170) valued law and order over public health. Britain's heavy investment in police force, rather than education, infrastructure or healthcare directly contributed to poor health statistics. Further, the lack of legitimate representation in government or even in health commissions led to public unrest and ineffective interventions.

Despite many hardships, due to its plentiful resources and economic potential, infant mortality rates in Guyana—although poor—were relatively low in the region by the 1930s. This chapter will unpack how labor, the economy, political structures, and civil stability influenced health and contributed to Guyana's infant mortality rates through 1926.

Section 1: Labor and Economic Factors

British Guiana's economy relied completely on the market value of sugar. Although sugar was increasingly competitive in the West Indies, free labor soon became the defining issue of the region. Following emancipation, slaves could quit their "jobs" and seek better employment. This created a never-before-seen competition for labor amongst the West Indian territories, increasing wages and decreasing planter's bottom lines (Banton, 2019: 191). In Guyana some groups of African laborers pooled together resources to buy land and found villages inland (Taeuber, 1952: 4), while others organized into labor unions and demanded higher wages, while working for their prior "employers" (Khemraj, 2015; 13). These developments made the Guianese the highest paid laborers in the Caribbean by the late 1830s (Newman, 1964: 22).

However, in order to stay internationally competitive and still turn a substantial profit, plantations had to find ways to keep wages low (Khemraj, 2015: 2). In order to drive down labor prices, the plantation owners and local governments created a labor surplus through the three following methods.

First, Britain permitted Guiana to import indentured servants, with 70% coming from India, 12% from other Caribbean islands, and 4% from China (Garner, 2008: 50). The mass importation of foreign laborers drove down the wages for the former African

slaves and created great ethnic animosity amongst Guyana's now incredibly diverse society(Garner, 2008: 57). Second, Britain loosened Guiana's immigration laws, allowing laborers to travel to Guyana from all around the Caribbean and beyond. Third, the colonial government reduced the prices of land, selling small plots at prices that laborers and immigrants could afford. Enticed by promises of land ownership, more laborers and former slaves from around the Caribbean traveled to Guyana, further flooding the labor market (Khemarj**,** 2015: 21).

These labor policies led to three important cultural outcomes. First, it created a heterogeneous society without a collective or common culture. Guiana is still referred to as "the land of six-people's" partially because the importation and immigration of these diverse ethnic groups created a separatist, rather than pluralistic society (McLemore, 2005: 49). This led to the second outcome: racial animosity. The original African slaves found themselves competing against other imported racial groups for jobs. This created tension between the different ethnic groups, which prevented the formation of a collective identity (Khemraj, 2015: 2-5). This is further supported by the Collective Violence Theory that argues that racial violence increases as when migration increases the number of workers competing for scares jobs and resources (McLemore, 2005:144) The importation of laborers also shifted gender demographics. Because the importation rates of male laborers far exceeded those of female laborers, many ethnic groups experienced "female shortages" (Glasgow, 1970: 26). This shortage reinforced an already patriarchal society and secured the woman's role in the home, and not in commerce or government (Trotz & Peake, 2000: 197). These cultural shifts, brought about by the government's economic policy, had distinct impacts on public health in Guyana.

The sociological changes from creating the labor surplus served to temporarily benefit the Guyanese in terms of health. First, health conditions in the countryside, or inland, were considerably better than in the coastal cities. Because the British lowered land prices, many African and immigrant groups left plantations to form inland villages. Without overcrowding and with strong social support the communities' health, and nutrition were significantly better than in the cities or coastal areas. Between 1895 and 1904, the infant mortality rate in the cities averaged 298 per 1,000, while the rates in the "country" averaged 160 per 1,000 (Kumar, 2013: 748). Although these rates are very high, they were mostly the result of poor sanitation and malaria; further conditions in other Caribbean countries were far worse (Kumar, 2013: 750). The second way immigration policy impacted health was through gender demographics. Due to the "female shortage," women were not an integral part of the labor force, and some focused on childcare and family subsistence farming. With more time and capacity to rear and care for children, general child mortality rates were lower in Guyana than other West Indies colonies.

A health commission observed in 1907 that the lack of sanitation, the overcrowding in the city, and lack of healthcare access contributed to the general unhealth of the country. It also found that because of the high endemic rates of malaria, women found themselves unable to breast feed their infants and protect them from it (Mandle, 1970: 306). Following emancipation, plantations stopped providing healthcare to its laborers, and this created a healthcare crisis. In order to address the high labor mortality rates and keep its labor population high for profit, the government passed a few health initiatives. The two most notable bills are the *1847 Hospital Ordinance* and the

1859 Ordinance to Provide for the Better Management of Estates (Aickin, 2001: 86). These bills provided a structure for healthcare outside of Georgetown and New Amsterdam requiring doctors to serve as medical district directors and devote their attention and care to anyone in a certain geographic area as opposed to anyone who could afford their highly-in-demand medical expertise. However, by 1872 only 27 doctors worked in the whole of British Guiana (Aickin, 2001: 90). Poor healthcare access and endemic disease remained a major contributor to the high infant mortality rates and further trapped individuals in cycles of poverty.

As demonstrated with labor policy, small changes often have widely felt effects. This is further reinforced by examining Guiana's economic development following emancipation. As previously stated, Guiana had abundant natural resources, but focused on sugar production through the nineteenth century. The heavy investment in this sole commodity led to economic uncertainty and slower growth in light of global competition. Due to climate challenges plantation owners required large sums of capital to maintain and improve their businesses. With the goal of increasing production, the country heavily invested in technology; this made Guiana one of the most competitive sugar producers in the world by the 1860s (Khemerj, 2015: 9). The formation of a labor surplus also led to more economic diversification; the east Indian laborers had a strong understanding of rice cultivation, so rice soon became a major commodity (Smith, 1962: 54).

Guiana's single-commodity market influenced its culture and health through providing unstable wages and poor living conditions (Smith, 1962: 58). Due to the fluctuating prices of sugar year to year, wages and job availability also fluctuated. This left the economic plight of most Guianese laborers uncertain and further increased racial

animosity. This economic volatility throughout the nineteenth century also left Guyana in a poor position to industrialize as it entered the twentieth century. Because of Guiana's focus on exploitation and profits, it only invested in the community where necessary. Rather than investing in infrastructure, housing, and the local economy, the majority of Guiana's budget was diverted to labor control and policing matters (Khemraj, 2015: 19). Most economic "developments" were done in order to appease the laborers and maintain law and order.

Overall, the poor labor conditions and the lack of intentional economic development trapped many laborers in cycles of poverty. Just as Guiana found itself in a cycle of underdevelopment, its people found themselves in a cycle of disease and poverty. This cycle is characterized by barely livable wages, chronic disease, and social stigmas. Because Britain interpreted the poverty and poor health of the Guianese as a symptom of lawlessness and lack of moral character, they did little to address the challenges. Because few opportunities to escape poverty presented themselves, poor immigrants and laborers faced many challenges following emancipation that trapped them in poverty. Further they were less equipped to treat their illness and more prone to nutritional deficiencies and diseases. Again, with the increasing severity of disease came more social stigma and intentional discrimination (Brand, 2014: 18-9).

Section 2: Political Structures and Stability

Examining the political structures and general stability of Guiana further exposes exploitive power structures, poor representation, and poor policy. The structures in place benefited the planters, investors, and the British Empire rather than the general population. In order to justify the oppressive political system, the planters and colonial

office established an ethnic hierarchy, which allowed the white or culturally European to rule and hold higher paying jobs. With the Europeans setting policy priorities the majority of the population lacked any legitimate form of representation. This in addition intense competition for jobs and resources stirred Guyanese to repeated riots and protests. Lack of representation not only contributed to the ethnic tensions but also undermined legitimate health reforms.

British colonial office based its policies on racial misconceptions. During the nineteen and twentieth centuries, British commissions investigated the efficacy of different populations and groups at work. It was generally found that Africans were best suited for labor, but less submissive; East Indians were less suited for labor, but more submissive; Chinese were still less suited for outdoor labor, while Portuguese were not suited for labor, but for jobs requiring a higher intellect (Garner, 2008: 64-5). The social hierarchy formed around these assumptions and determined who could rise to power, but it also gave a corrupted form of legitimacy to oppressive European rule.

With power in the hands of Europeans and planters, two national priorities were set: maximizing profit and maintaining law and order. In order to achieve law and order, the legislature increased taxes, limited wages, and invested in policing efforts. Taxes and duties on labor and imports were increased. Although some of those funds went to "the provision of public goods," reports indicate that few resources got to where they were needed (Khemerj, 2015: 14). Taxation was used to keep the poor, poor (Bourne, 1975: 517). Additionally, the government limited wages. As Adamson clarifies, the planter dominated legislature created laws that undermined the work of labor unions and provided planters with loopholes to avoid paying laborer's wages (Adamson, 1972; 111).

Finally, to ensure compliance the government heavily invested in policing efforts. Colonial authorities spent six times more on police forces than on education during the 1850s (Khemraj, 2015: 19). Further, roads were built between various coastal sugar and rice plantations for troop transport in case of a rebellion (Smith, 1962: 74).

This priority of law and order simply exacerbated poverty and breed mistrust in institutions and government. First, by increasing taxes on imports and on food staples—specifically meats—fewer people could afford to eat them (Khemerj, 2015: 24). With an already poor diet, the lack of meat during the mid to late nineteenth century likely exacerbated anemia and other nutritional deficiencies. Inaccessibility to food greatly influences community health, and especially pregnant women and new mothers. Reduced wages further trapped individuals in poverty. Additionally, by highly valuing police matters, the government increased its funding towards local law enforcement, rather than passing the proposed *1841 Ordinance Providing for Rural Hospitals* (Aickin, 2001: 74). Because many associated illness with poor moral character, some Guianese leaders believed that reducing crime and theft would improve health conditions. Even the city hospitals in the region had strong relationships with jailhouses (Aickin, 2001: 30), which further increased institutional distrust.

The plantation owner's monopoly on political power is further demonstrated through the various ways they stifled diverse voices and labor groups. Until 1891, the British colonial governor operated without direct or indirect representation. In 1891 the new constitution provided direct representation for landowners and wealthy Europeans and reformatted the responsibilities and structure of the government to align with that

seen in other West Indies islands (Smith, 1962: 52). The realities of the change are demonstrated in the 1915 census:

> "The 1915 census highlighted the disproportion between the number of Europeans, their actual political power, and the relatively privileged position that the Portuguese and attained. Comprising only 2.9% of the adult male population, 17.7% of the Portuguese were on the electoral register, hence accounting for 11.4 percent of the eligible voters." (Garner, 2008: 65-6)

A group consisting of 3% of the population represented 20% of registered voters. This is even more shocking when considering that East Indians comprised 51.8% of the adult male population, but only 6.4% of eligible voters and 0.6% of the electoral register in 1915 (Garner, 2008: 66).

However, following WWI, the People's Progressive Party (PPP) organized and inspired diverse racial and ethnic groups to follow. This unified front sought to use the 1891 constitutional provisions to gain seats and more fair representation. However, in light of this threat, the Colonial Secretary, Leo Amery, officially made British Guiana a Crown Colony in 1928. This limited representation by making all key government positions appointed. As a result, this helped the European elites retain control of the colony until 1951 (Garner, 2008: 73-4). This lack of representation and even national identity undermined public health efforts.

This widespread resistance to diverse non-European voices in government generally extended to public health policy. In the early twentieth century a public health initiative aimed to reduce infant mortality demonstrates this. Eager British physicians and public health experts approached issues of sanitation, nutrition, and education as they would in England, not British Guiana. The Georgetown's Annual Report of 1906 mentions the group's initiative to pass education cards on infant care and mosquito

prevention (Aickin, 2001: 165). Due to low literacy, lack of resources, and gross poverty, those attempts, among all others, were unsuccessful. Guianese mothers were not misinformed on how to care for their infants—they simply lacked the resources to do so properly (Aickin, 2001: 169). Further, although it was believed that malaria, syphilis, and malnutrition were the major contributors to the high infant mortality rates, no program to support mothers or reduce mosquito transmitted diseases was implemented (Aickin, 2001: 170). Since many leaders still associated sickness with moral decay, many social programs like poor relief were underfunded while many education and policing efforts received support because of their ability to discipline the masses.

Guiana lacked government run social services; consequently, most individuals found support, living arrangements either through their employers or their personal associations. For fear of losing laborers to competitors, many plantations provided living arrangements, but medical districts also provided limited support. Outside of that, religious and ethnic associations were the main sources of social services until the 1940s. Mosques and churches created support programs for their members, and they occasionally received grants from the colonial office (Smith, 1964: 158-9). Lack of social programs left the vast majority of Guianese living in small homes with no running water, waste removal, or mosquito repellants (Aickin, 2002: 164-6). In the swampy environment of Guiana, exposure increased risk of disease, and that is reflected in the infant mortality rates in the 1920s (Mandle, 1970: 306).

Guyana also used education to address the moral decay that produced unproductive and rebellious laborers. Since 1876 Guiana had compulsory primary education, but it did not enforce it until the 1950s. Planters and policymakers experienced

a conflict of interests between what was profitable and what was good. Planters wanted children to work in the fields as soon as possible, whereas they also wanted "foreign colored" children educated and "westernized". Seeing the poverty and disease of the lower classes and children, many believed that physical force and labor was necessary to tame the passions of children laborers because it channeled their energy into constructive activities (Glasgow, 1970: 146-7).

This gross abuse of power at the expense of the country, for the benefit of the elite, created social instability. Roads were paved for troop transport, not trade or commerce, and Guiana's police force was well outfitted. As a result of this disconnect, riots ensued; labor strikes and various revolts demanded social programs and higher wages. Between 1840-1905 most labor riots and strikes responded to poor working conditions or individual disputes on plantations. Coordinated riots began in 1905, and grew in frequency and violence, especially in response to police violence (Garner, 2008: 80).

Associations, unions, and parties emerged out of the quashed riots and rebellions. Between 1910 and 1921, the League of Colored peoples (LCP), British Guiana East Indian Association (BGEIA), Chinese Association, and the United Negro Improvement association (UNIA), among other organizations, formed with the goal of mobilizing support to gain political representation (Garner, 2008: 76). Labor Unions also emerged as a major part of society starting in 1917 with the formation of British Guiana Labor Union (GLU) (Merrill, 1992). This unification motivated the formation of a Crown Colony in 1928.

Imbalanced power, strong social conflict, and lack of representation led to ineffectual public health interventions, in addition to the poor allocation of resources, social unrest, and widespread discontentment. These poor conditions are seen in the infant mortality rates in 1926 (Table 1).

Summary

When looking at labor and economic factors a few trends are of note. First, the importation of foreign laborers increased production and led to a form of economic diversification. However, it also diverted resources from legitimate needs and created a separatist culture with strong ethnic animosity. A significant amount of government resources focused on the importation of foreign laborers. Funded through raising taxes and tariffs, it left the local population financially and nutritionally poorer. Further, without a unified national identity, the ethnic minorities could not form a majority and demand change. This will prove problematic in the future. Second, investment in agriculture led to initial economic growth, but left Guiana lacking in many regards. Without investments in the local economy, infrastructure, and education, sustainable growth and development was greatly impaired.

Political structures and stability also impacted health. First, the structures in place prevented the majority of the population from influencing policy. This lack of political representation damaged legitimate attempts to improve healthcare and led to instability and violence due to the frequent riots and rebellions. Second, the ruling class's desire for law and order diverted resources to policing and undermined the public's trust in government or general institutions like hospitals.

Together these factors shaped the resulting infant mortality rates shown in Figure 1. By 1926 there were on average 161.3 infant deaths for every 1,000 live births. With an infant mortality rate of 16%, conditions were poor, but not as bad as many other colonies. As will be demonstrated in Chapter 4, significant changes following the 1930s will improve health significantly. However, by independence the underlying ethnic tensions, weak economy, and distrust in government that resulted from this time period will undermine health and future development efforts.

CHAPTER THREE

Post-Emancipation Development in Barbados 1834-1926

Introduction

Entering into the 1930s conditions in Barbados were some of the worst in the region. As in Guiana, Britain sought profits at all costs. Although Barbados operated with more autonomy than most colonies, the ruling white planter elites also neglected human and political development, creating a desperate colony filled with hostile citizens.

This chapter will first discuss Barbados' economic development and its impacts on infant mortality. This section will discuss how following emancipation in 1834, the demographic changes, overpopulation, and racial conflict created a subservient and oppressed labor class. The mass emigration that followed emancipation created an imbalanced gender society, leaving women to carry the burden of labor and of childcare. In addition to the gender imbalances, Barbados experienced an underlying current of ethnic and class tension between the black laborers and the white planters. Further, with limited land availability and few natural resources, the country lacked economic opportunity, and Barbadian laborers lacked the ability to subsistence farm. Due to Barbados' small size and limited economy, Bajan's were trapped in cycles of poverty, and lacked the opportunity to escape.

Following a discussion of the labor and economic factors, this chapter will discuss how Britain's "Laisser-Faire" policy in Barbados led to the establishment of oppressive political structures (T.C., 1943:140). With more autonomy than other colonies, the Barbadian house of assembly did everything in its power to secure profit. Because of misunderstandings about the causes of poverty, and lack of political representation,

policy makers sought the wrong solutions and damaged legitimate attempts to improve healthcare.

This chapter will highlight the varied and entrenched challenges Barbados would face entering into the 1930s. The economy was small, the island overpopulated, the people overworked, and the infant mortality rates fluctuated from 30-40%. By 1926 Barbados had an infant mortality rate of 265.8 per 1000 live births (Table 1).

Section 1: Labor and Economic Factors

The evolving labor demographics and agricultural-driven economy in Barbados tramped many black Barbadians in poverty and with various health challenges. Unlike other West Indies colonies that had high demand for labor, Barbados was overpopulated and had a labor surplus. This abundance of labor benefited the slave plantations leading up to 1834 and following emancipation. While many colonies like British Guiana sought to create a labor surplus to the cost of labor, Barbados already had a labor surplus. Emancipation hardly benefited the Barbadian laborers; plantations were no longer required to house, feed, or provide medical care for the laborers, so many found themselves unequipped to face independence.

In response to the low wages and newfound freedom, Barbados underwent mass emigration (Banton, 2019: 189). Thousands of laborers left the country in the hopes of acquiring land, a better job, or better prospects:

> "Between 1833 and 1865, emigration from Barbados ranked among the highest in the region. While the 1851 census recorded the population in Barbados at 160,000, in 1834, a total of 9814 Barbadians migrated to British Guiana, 1485 to Demerara, 3500 to St. Croix, 99 to Antigua, and thousands of others to the Isthmus of Panama." (Banton, 2019: 182).

Barbadian leadership encouraged mass emigration in order to control the population size. Due to the limited resources and space on the island, the government needed to find ways to either maximize space and efficiency or to decrease the population size and growth (Banton, 2019: 189). Additionally, Barbados, despite its abysmal living conditions, had positive population growth, throughout the nineteenth century (Green, 2011: 151). The Barbadian government saw emigration as an effective means of offsetting population growth and overcrowding.

Mass emigration affected Barbados' demographics dramatically. Because a majority of male laborers left the country to seek better prospects, the "abandoned" women of Barbados were left to work and support their families. The 1911 Census found the population as to sex: males: 70,240 and females: 101,743, with the number of females to every 100 males, 144.8 (Wickliffe, 1913: 19). Between 1881 and 1921 women composed 75% of the labor force in Barbados (Denis, 2003; 493). In 1921, for all age groups, there was an 27.8% average excess of females, with the 30–39-year-old demographic consisting of 72.3% women (Chamberlin, 2001: 54). This surplus created unique challenges and shifted societal values. The rise of this female-dominated work force and population heavily influenced the future development of the nation.

From emancipation until the 1930s, however, the planters took advantage of the female workforce. Many described the conditions as "no better than slavery" (Chamberlin, 2003: 91-2). Leading up to the 1930s, women were paid up to 16 cents a day, and men, 24 cents a day (Chamberlin, 2010: 91). These barely livable wages could not support a traditional family. A diary described how women would work a full day, then use their 16 cents to buy a hole of potatoes, for 16 cents. Wages gave women no

purchasing power outside of food for themselves and their children (Fletcher, 1992: 262). Although men would make slightly more, at 24 cents a day, those wages could not support a wife to stay at home with the kids. The effects of mass emigration impacted family structure, survivability, and infant mortality rates, among other factors (Chamberlin, 2010: 91).

As the majority of the population and labor force, women had conflicting demands. In addition to working full days in the markets or on plantations for barely sufficient wages, women needed to care for their children and newborn children. A local doctor, Dr. Huston, observed:

> "because laborers were unable to afford milk for their infants. Instead, poor Barbadian mothers mixed flour with tea and called it milk. This comprised the death of many infants, since most laboring women had to go back to work shortly after birth and could not breastfeed their children." (Merritt, 2016: 170)

Without the ability to take time off work, pay for childcare, or purchase milk, mothers had to leave their infants either alone or in the care of other children. As a result of this, infant mortality was high, and children began forming "gangs" to care for each other (Aickin, 2001:13). Infant mortality in Barbados was the worst in the Caribbean leading up to the 1930s. In 1841, for example, 596 out of every 1000 deaths in Barbados were of children under the age of 10 (Centioglu, 2014: 98).

These poor labor conditions and the general lack of economic opportunity led to poor nutrition and high rates of infectious diseases. Laborers suffered from poor nutrition as a result of their poor wages and lack of land ownership. Unlike Guiana, where laborers could subsistence farm, laborers in Barbados were unable to own arable land. Because of this, Barbadians lacked a mechanism to grow crops and supplement their poor diets of

potatoes, bread, and tea. This left many severely malnourished (Banton, 2019: 189). Secondly, laborers were more susceptible to infectious diseases. Overcrowding and poor sanitation are associated with higher incidences of infectious diseases like hookworm and tuberculosis. As a result of overcrowding, infectious diseases like tuberculosis were pervasive (Mandle, 1970: 307).

The high rates of infectious diseases in Barbados were further observed by Dr. Huston and visiting physicians in 1911. When visiting the Scotland District, they observed how all "poor whites" suffered from malnutrition, anemia, and one or more parasitic infections. They found that over 50% of school children had persistent hookworm infections (Wickliffe, 1913: 15), which are now known to stunt development, growth, and mental maturity (Hotez, 2007: 28-9). Dr. Huston observed that when these "poor whites" got severely sick, they were no longer hired or permitted to work—which left their condition worse (Wickliffe, 1913:16). This report did not examine the black population because at the time it was assumed that blacks were "racially immune" to disease (Wickliffe, 1913:16). However, based on fact, if poor whites suffered to that extent, even with the support of their local parishes, then the black laborers likely suffered more.

The labor demographics, low wages, and lack of economic opportunity trapped many Barbadians in a cycle of poverty and disease. Agricultural work left laborers with little financial freedom to buy nutritious food. Low wages and limited land area created barely sustainable living conditions. Poor living conditions and overcrowding left many vulnerable to tuberculosis and to soil transmitted parasitic infections like hookworm. Infections drained laborers of energy, making them less likely to be hired in a

competitive labor environment. Lack of work left them poorer than they began with, and the cycle continued.

Although surrounded by suffering, the Barbadian elite found ways to benefit from the oppressed laboring class. With a large obedient labor pool, they began industrializing the city. Beginning in the 1870s, Bridgetown became the headquarters for electricity, telegraph water, and gas or railway companies. Although Barbados never became a crown colony, the ruling plantation owners and merchants welcomed British investments and used them to benefit and modernize their country (Carter, 2012: 5). An electrical company began delivering services in Bridgetown and surrounding areas in 1911. These advancements in addition to the expansion of the water and sanitary systems in the cities during the 1920s greatly benefited the upper class, but these improvements did not trickle down or support the labor class until the 1940s-50s (Carter, 2012: 2).

Section 2: Political Structures and Stability

While most plantation owners and businessmen in the Caribbean lived in England or other colonies, the white Barbadians elites, former Englishmen, made a home in their "Little England" (Merritt, 2016: 77). They welcomed foreign investments and other forms of industrialization that consolidated power and directly benefited their lives and their profits (Harris, 2017: 7). The Barbadian elite or the "planters" were powerful, not only in oppressing black laborers but also in retaining control over the colony. This led to immense oppression, relative stability, and poor health outcomes.

Barbados was first discovered as an uninhabited island in the seventeenth century. The English elite quickly imported African slaves to populate, cultivate, and work the

land, and that racial structure persisted through the twentieth century. Barbados as a whole was "notorious for [its] entrenched system of racialist prejudice" (Harris, 2017: 6). Although slavery ended in 1834, the planter-dominated legislative assembly codified and passed laws over the next few years that legalized practices like whipping, confinement, and imprisonment for small offenses like dishonesty or minor theft (Harris, 2017: 80). In 1839, for example, the planters passed a law on the punishment of individuals who caused or participated in riots or tumults; this law mandated 3 years in prison or life working in transportation for any minor offense (Harris, 2017: 74). The codification of abusive slavery practices and the harsh punishment for any resistance reinforced the social hierarchy and created a submissive labor class. These practices were not altered until the late nineteenth century when punishments were slightly lessened.

Although they commonly used the law to oppress laborers, the government did institute a *Poor Relief Law*. This, unfortunately, allowed for great abuse and misuse. The planter government created poor relief and government support programs to address the concerns of poor whites, who, according to the perceptions of the time, suffered due to poor circumstances rather than disposition. These relief programs were administered through a decentralized parochial administration (Fletcher, 1992: 255). The government provided funds for each church parish district, and the parish leadership and local leaders were responsible to allocate resources or carry out broader goals. Misconceptions about race heavily impacted provision through this patriarchal system. Whites described black Barbadians, which made up the majority of the population:

> "The black man, with his relative racial immunity from this disease has fared better…The black man with his better physique is a better laborer, is more productive, is more prosperous" (Wickliffe, 1913: 16).

As a result, relief programs primarily served poor whites and left the black Barbadians to fend for themselves.

It is important to note that although some of the planter's laws appear beneficial, the planter class was generally indifferent or occasionally supportive of the high infant mortality rates. In 1839 the planters and colonial officials founded Barbados General Hospital in the St. Michael parish. This hospital addressed the limited health concerns of male laborers and elite, but it did little to remedy the health concerns of women and children (Centinoglu, 2014: 99-102). These small attempts to improve conditions did little to curb the nearly 50% infant mortality rate during the early twentieth century (Centioglu, 2014: 98).

Beyond this indifference, some planters saw the high mortality rates as beneficial—Dr. Hawkins claimed in his 1927 public health commission report to Britain:

> "Unless we can have this very high infant mortality, we would have a greater population than the island could support…if you do not have this high infantile mortality the island would be overpopulated and would be poorer than it is present" (Merritt, 2016: 171).

Due to the positive population growth and the intense overpopulation, these high mortality rates were viewed positively as an indicator of population control. With commission reports supporting or sometimes justifying the poor health conditions, the local government and colonial office were not motivated to make any drastic reforms. This indifference greatly contributed to the prolonged suffering in Barbados.

The dominant planter and merchant elites controlled the governmental machinery of Barbados until the 1940s, and their priorities greatly shaped society (Carter, 2012: 5). Plantation owners had a few key priorities. First, they sought to retain cheap labor and control land. This was achieved soon after emancipation. The Barbadian planters passed

the *1840 Masters and Servants Act*, which linked housing with employment. This law required laborers to live on the plantation that they worked for; this prevented many from seeking new opportunities and left Barbadians poorer due to high rent prices (Chamberlin, 2001: 52). Despite strong recommendations from the 1897 Royal Commission to reform laws on land ownership, plantations did not relinquish their control over their workers or their arable land until the 1930s. Secondly, planters sought to maximize sugar profits. The lower the wages, the greater the profit margin. Having a majority of female and child laborers, the planters could pay them less than male laborers and thereby increase their profit margins. By the 1930s, Barbadian laborers had the lowest wages in the Caribbean (Chamberlin, 2010: 52-5).

Further, the planters created laws to control the laboring class and restrict their ability to protest or change the system. This was done partially by allowing for surveillance in the parish structure for "unlawful behavior" and by strictly punishing anyone who participated in a riot or strike (Green, 2011: 151). However, it was also accomplished by limiting representation through voting laws and by resisting British oversight. During the early twentieth century, the British sought to consolidate power in its Caribbean colonies by making them "crown colonies." These colonies had British appointed leadership and limited direct representation. However, Barbados retained its representative system which gave a disproportionate amount of power to the sugar plantation owners. In order to appease the British, the parliament continued to allow for a British appointed governor and allowed for the formation of a few British appointed executive committees (Carter, 2012: 5). These changes, however, did not fix the lack of representation for the black majority.

Without a voice in government, the plight of the poor and the working mother were misunderstood and unaddressed. The local governments hesitancy to provide relief to mothers was racially and morally motivated. In 1912, Barbados created a commission to investigate and make recommendations for maternal health, but the program was underfunded, not carried out in all of the parishes, and ultimately terminated after one year. One of the justifications given for terminating the program was that the program was "a means of mothers getting support for bastard children instead of getting relief from the fathers of such children" (Fletcher 1992: 258). Europeans believe that the dissolution of the Christian family led to immoral behavior and poverty. However, typical marriages were not sustainable in the population, because of the shortage of men. Barbadian women had "visiting" relationships with one or multiple men but were primarily responsible for supporting their families. This behavior was heavily stigmatized by the Christian Parish government system, and often delayed or prevented relief or intervention (Nag, 1971: 121).

Blaming women for immorality allowed the Barbadian government to explain the high mortality rates as divine punishment for a lifestyle of sin. Dr. Hawkins, a prominent eugenicist and physician in Barbados during the early twentieth century, answered to commission investigations that infant mortality was caused by "the deficient morality of single mothers." Because women were known to abandon their children to work, they were called loveless; because their children died, they were to blame for their loss (Merritt, 2016: 171). The Barbadian government did not believe policy or monetary relief would solve an inherently moral issue, so they did little to nothing until after the Dean and Moyne Commissions in 1938.

When examining stability in Barbados, the racial composition, intense poverty, and extreme oppression created an obedient labor class. Outside of law, demographic and economic factors contributed to the relative political stability in Barbados. The low wages, higher proportion of females, and land and labor laws gave the political elite more control over the general Barbadian population. The homogeneity of the Barbadian culture also contributed to the relative stability. The population generally consisted of white Europeans from England, former African slaves, and creole or mixed individuals. The 1911 census found the proportion of whites 12,063; blacks 118,387 and mixed 41,533, with a total of 171,983 (Wickliffe, 1913: 19). Simply stated, there were white planters and black laborers. This simple division led to the development of a Black Barbadian culture and a general social identity that opposed their oppressors. This social identity was one with a strong matriarch, a heavy emphasis on education, and a collective desire for more social support. This sense of social cohesion among the blacks was important following the civil unrest in the 1930s.

Summary

This discussion has brought to light a few notable trends and factors when considering the infant mortality rate of 26%. The labor and economic factors impacted infant mortality in three main ways. First, the emergence of a female majority in the workforce, left women overworked and underpaid. Educational opportunities were few and far between, but were greatly utilized, when available as childcare. Due to the low wages and long hours, working mothers could not adequately feed or tend to their children.

Secondly, due to the land shortage, Barbadian laborers had few opportunities for subsistence farming. Unable to supplement their diets of bread, potatoes, and tea nutritional deficiencies significantly affect pregnant women and infants, and the poor nutrition in Barbados is demonstrated through the staggering infant mortality statistics. Finally, the lack of general economic opportunity impacted the overall economy and local health conditions. Because sugar was its only commodity, Barbados did not have a diversified or robust economy. Additionally, the local economy barely existed outside of the plantation structures and city centers, so it provided very few opportunities for Barbadians, generally. At the time this lack of opportunity trapped the majority of laborers in poverty, leaving them more susceptible to disease and death.

When examining political structures and stability, four trends are of note. First, the planters dominated Barbadian politics through the 1930s. Their policy priorities focused on retaining power and earning profit. To the planters, high infant mortality was a mechanism of population control, so little was done. However, their initiatives to build roads, expand cities and provide electricity did benefit the country in the long run, but those improvements were not widely felt until the 1940s. Secondly, the structures in place favored whites. With the decentralized parish system, laws like Poor Relief were loosely followed, and resources were often committed to the poor whites over the poor blacks.

Thirdly, black Barbadians lacked any form of representation. Without their input and perspective leaders made many harmful assumptions about the morality and intellectual abilities of the black laborers. This impacted what communities would be recipients of resources, programs, and additional funding. Finally, Barbados had fewer

strikes and less dissention because its labor class was oppressed to the point of helplessness. Barbadians received the lowest wages in the west indies, and the least social support, but labor competition and the overly harsh punishments for “tumultuous behavior” deterred most riots or forms of dissention. The lack of dissention led to the continued abuse of power, which left living conditions so poor. The relative stability increased the amount of foreign investments and support.

This leads to the formal analysis of the dependent variable, infant mortality, in Barbados in 1926 as seen in figure 1. The Barbadian government, especially with the advice of Dr. Huston, showed indifference towards the dyer health conditions of the island and did little to improve conditions until the Moyne Commission report in 1938. The root of the issue is based in the overwork of mothers, the low wages and lack of supplemental nutrition, the underdevelopment of health care systems, and misconceptions about single mothers, race, and proper development. This indifference toward the laboring class and the black Barbadian allowed conditions to deteriorate to the point where infant mortality rates in 1926 were 265.8 per 1,000 live births (Table 1).

CHAPTER FOUR

Trusteeship, Self-Government, and Independence in Guyana 1926-1966

Introduction

Entering into the 1930s, both Barbados and Guyana were in poor economic and political states. However, conditions in Guyana were notably better due to its controlled population, high wages, economic opportunity, natural resources, and supervised government. By 1926 the infant mortality rate in Guyana was 161.3 per 1000 live births, which was one of the best rates among other British colonies. However, by independence in 1966, Guyana's rate was 57.3 per 1000 live births—the worst rate in the commonwealth (Table 1). What factors caused Guyana to fall behind the rest of the Caribbean in terms of development and health? This chapter will unpack the independent variables of labor and economics and political structures and stability that undermined Guyana's potential for growth.

This chapter will first discuss Guyana's season of unrest in the 1930s, and the findings of the British commission reports. Following the labor strikes in the 1930s and WWII, Britain began to shift its colonial policy from exploitation to development. In light of the structural, political, economic, and social issues exposed in the Moyne Commission report, Britain initiated extensive reform which eventually led to Guyana's independence in 1966. However, as will be demonstrated in the next sections, many underlying problems were left unresolved.

The second section will detail the labor and economic factors that contributed to Guyana's slow health improvements, when compared with other colonies. Initially labor and economic conditions benefited the country, but as it incurred more debt, alienated

foreign investors, and experienced ethnic tensions, Guyana's economy stagnated and did not improve until the 1990s. The lack of economic opportunity and social violence continued to trap many Guyanese in poverty. The poverty and lack of funding prevented any significant health improvements, leaving infant mortality rates high by 1966.

The third section will explain the political factors that contributed to the disappointing health improvements. Structurally, following emancipation, socialist leaders rose to power, causing British intervention, international alienation, and social unrest. Further, due to the resulting turmoil, new leaders prioritized stability, law, and order, over other crucial development steps like international partnerships, trade agreements, or economic diversification. With health and community development as secondary and tertiary priorities, Guyana's government did not facilitate significant health reform until the 1990s.

Section 1: Civil Unrest and British Commissions (1926-1945)

Throughout its time as a British colony, Guyana was known for its repeated riots and rebellions. Just between 1900 and 1930, riots broke out in 1904, 1905, 1919, 1922, and 1924 (Garner 2008: 80). Although conditions stabilized during the late 1920s, the global recession that resulted from the American Great Depression affected Guyana's economy heavily. Sugar, rice, and bauxite prices dropped, and the cost of living rose by 138% (Garner, 2008: 80). Without legitimate forms of representation, the Guianese responded with prolonged riots and protests, especially during 1939 in Georgetown (Garner, 2008: 79). In order to understand the root causes of these riots, Britain tasked Lord Moyne to investigate the riots across the West Indies and make specific

recommendations for each colony. In British Guyana, the Moyne Commission investigated living and social conditions from 1938-39 and identified three of the root causes of social unrest.

First, they found that ethnic divisions undermined national identity and destabilized society. After conducting interviews with labor groups and rioters, it found that, despite the unified riots against the European elite, the population was deeply divided along ethnic lines (Merrill, 1992). While the Africans had begun to assimilate into European culture, other groups, like the East Indians, strongly resisted assimilation. The East Indian population was rapidly growing, and the Africans and Portuguese felt threatened by this emerging majority group. With changing and emerging social and economic roles, the commission noted that the ethnic tensions would only grow if left unaddressed (Garner, 2008:83-4).

Secondly, they discovered glaring ethnic disparities. In 1935, for example, the annual average income of an Indo-Guyanese was $97, while it was $112 for Afro-Guyanese (Garner, 2008: 81). This was likely because by 1931, the Afro-Guyanese consisted of 88% of civil servants and 93% of teachers, which were higher paying occupations. The occupational disparities led to further tension. Finally, the Moyne Commission identified that occupational disparities based on gender, motivated many women to participate in the riots. Women were disproportionately employed in the agricultural sector and earned on average, 38% less than their male counterparts (Garner, 2008: 83). The commission concluded that the ethnic tensions and these widely felt disparities ignited the riots.

The Moyne Commission made a series of recommendations. First, the commission recommended Guyana to increase representation, in order to allow the diverse population to voice their needs. Secondly, it called for economic reforms that would diversify the economy, making it more resilient to change and hardship. Third, it called for the widespread inclusion of women in society, specifically in labor unions and political associations. Although some reforms were delayed until after WWII, the local governor pushed for infrastructural advancements and expanded voting rights (Merrill, 1992). However, as changes continued to be introduced, various factors undermined Guiana's ability to successfully improve health outcomes leading up to independence.

Section 2: Labor and Economic Factors (1939-1966)

Following the Moyne Commission, Guyana made a few significant economic improvements. The shifting labor demographics, economic investment, and emergence of new occupations led to health improvements. However, following 1953, the ethnic disunity, ineffective economic policy, and international alienation due to the adoption of Marxist ideals, slowed general and health development. Further, the general population of Guyana was often described as lacking a sense of personal and national responsibility or duty—this undermined the government's efforts to raise taxes and to build community.

Following the Moyne Commission and during WWII, Britain left its colonies to function autonomously. Britain diverted colonial funding to war efforts, and increased production quotas. This prolonged the economic depression, leaving living and working conditions worse than during the 1930s. The cost of food rose by 68% in the colony and the cost-of-living index rose by 90% (Munro, 2005: 250). Despite these hardships, the

growth of the rice industry, subsequent rise of the East Indian population, and decrease of female laborers led to general health improvements.

Rice farming was introduced by East Indian indentured workers in the mid-1800s. Although sugar was Guyana's main commodity, it was only cultivated along the coast, due to the swampy inland environment. Further, as the global supply of sugar increased during the early twentieth century, the prices of sugar plummeted, encouraging Guyana to look at other cash crops and new industries to invest in (Newman, 1964: 55-8).

In response to this new demand, rice farmers took out loans to expand their farms and production capabilities. The government heavily subsidized the industry, allowing for farmers to invest in machinery and technology to industrialize (Thakur, 1973: 52). With new economic opportunities, the East Indian population began experiencing positive population growth (Garner, 2008: 77).

As the rice industry grew, the East Indian population also grew. With more economic opportunity, the East Indian population began integrating more into the Guyanese society. For the first time in years, families began sending their children to Guyanese schools (Glasgow 1970: 96-7). In the 1940s, Guyana received a *Colonial Development and Welfare Grant*, which allowed them to expand their schooling system. The number of students in school rose from 63,046 in 1945 to 106,459 in 1956 (Smith, 1964: 147), and East Indian children accounted for the majority of that increase. As this previously marginalized population began seeking educational resources, they also began to rapidly enter into higher paying jobs as lawyers, doctors, and teachers. Between 1930 and 1950, East Indians went from being the minority in professional jobs like law, medicine, and civil service, to the majority (Garner, 2008: 77).

The economic improvements in the East Indian population are important for three reasons. First, they led to general improvements in health. As laborers transition from agricultural work to higher paying service jobs, their susceptibility to disease decreases, living conditions improve, and as demonstrated in Figure 1, infant mortality rates decline. Secondly, although more individuals began working in the healthcare industry, by 1957 there were only 125 practicing physicians in Guiana (Smith, 1962: 153). The demand for health far surpassed Guiana's ability to supply physicians. Thirdly, the improved station of East Indians exacerbated ethnic tensions with the Afro-Guyanese. East Indians now competed with them for higher paying jobs.

In addition to the better economic position of the East Indian population, Guyana more fully embraced traditional European gender roles. The total number of women in the workforce fell from 60,500 in 1956 to 34,200 in 1960, despite the fact that Guiana saw a 12% increase in its population during that time (Newman, 1964: 65). The amount of women in the workforce decreased by half, indicating that more women stayed home with their children. This is relevant for two main reasons. First as women began exiting the labor force, they also began losing their voice in associations and political advocacy organizations (Garner, 2008:105). Secondly, since the women now had the capacity to stay home and care for their children, infant and general child mortality rates decreased significantly, leading up to 1953.

In addition to the success of the rice industry, a few other important developments led to the improved prosperity and health in Guiana entering into the 1950s. First the construction of an U.S. Airforce base, encouraged industrialization in Guiana and decreased unemployment significantly thus improving Guiana's economy (Merrill,

1992). Secondly, the malaria elimination program in the late 1940s improved working conditions and public health. Britain launched an extensive Malaria elimination initiative and began spraying DDT in the homes, buildings, and fields in Guiana (Smith, 1964: 155). Alongside the reduction in Malaria, small infrastructural improvements in waste removal and water safety improved overall sanitation around Georgetown (Barros, 2003: 69). The growing job availability and the elimination of mosquito transmitted disease in addition to small improvements in sanitation, decreased overall mortality rates, especially among agricultural workers (Kumar, 2013: 750).

By the beginning of the 1950s, it would appear as if the Guianese had found an escape route to their cycle of poverty and underdevelopment. The additional educational opportunities, better paying industrial and service jobs, safer agricultural workplace, and the rise of single income households led to significant health improvements. Rather than being caught in a poverty trap, families utilized education and higher wages to escape it. Although these conditions look promising, economic conditions following 1953 stalled further development and the subsequent health improvements.

In 1953 the People's Progressive Party (PPP) installed a new constitution, and the British Government suspended it because of its socialist agenda. Labor and economic conditions changed dramatically. The Robertson Commission in 1954 outlined the conditions that led to the widespread adoption of communism and made recommendations to the colonial office on how to proceed (Garner, 2008: 101). The commission was not hopeful for the economic or political future of British Guiana. Its report stated:

> "We do not believe that there can ever be built in British Guiana the El Dorado, which the masses seem to believe can easily be obtained by a re-

> distribution of wealth: a country can only reach that standard of living which it can support by its own labor and its own natural resources…we cannot but stress as main features the difficult and unpromising nature of the country: the undoubted dissatisfaction and frustration of the people generally at their social and economic environment: and their desire for speedy changes and improvements" (Palmer, 2010: 135)

The report identified three reasons why socialism appealed to the masses. First, the Guyanese did not want to take responsibility for improving their own economic position. Secondly, they considered themselves victims and entitled to outside reparations. Finally, they were short sighted, desiring immediate relief, rather than long term solutions.

In response to this, the British government set a few economic priorities when it governed from 1954-7. First, it sought to invalidate communism and undermine the claims of Cheddi Jagan and other Marxist antagonists through targeted propaganda (Palmer, 2010: 154). Second, by promoting capitalist ideals, Britain hoped that Guyana would experience the growth necessary to appease the demands of the working class. These priorities led to some improvements because by the mid 1950s, the Guyana's GDP averaged 180-190 USD (DaCosta, 2007: 17). By investing in healthcare, social security, rice plantations, and education, Britain hoped to resolve the widespread discontentment that led to the original adoption of communist leaders

When Britain surrendered the government back to Guiana in 1957, the people reelected Cheddi Jagan, and he set the new economic priorities moving forward. The economic development plans leading up to 1966 were ineffective because of poor planning, ethnic disparities, and because of its closed economy. First, rather than seeking council or advisors, Jagan proposed a four-year economic plan that, he believed, would improve conditions around the country.

In response to the economic stagnation, the government enacted a four-year economic development plan starting in 1960. This plan, under the leadership of Cheddi Jagan, focused on expanding rice agriculture, rather than building its industry, manufacturing, or mining sectors. This plan relied on international grants and loans with low interest, and on public financing with increased taxes (Newman, 1964: 71). However, since Guyana had previously alienated its foreign partnerships, international organizations and other countries did not offer loans. In response, the Guyanese government raised taxes to higher rates than expected. This led to the Riots of February 1962. Overall, the economy stagnated, and it was difficult to motivate private, public, and general investment in the development plan, that was not that promising to begin with (Newman, 1964: 74). By independence in 1966, Guyana's GDP was $295 USD, which demonstrates the stagnant growth at the time (DaCosta, 2007:17).

The infant mortality rates reflect the economic conditions at the time. As illustrated in Figure 1, infant mortality rates steadily improved leading up to 1954. This time period of rapid improvement corresponds to the period of British development and is likely related to the decrease in female labor, the malaria elimination project, and improvements in public sanitation. However, from 1954-1966 the infant mortality rates did not appear to improve. The lack of democratic economic policy like international support, economic diversification, and personal responsibility, as noted by the Robertson commission, undermined growth and health improvements in Guyana.

Section 3: Political Structures and Stability 1939-1966

Following the Moyne Commission recommendations, the government sought to increase representation and integrate more women into government offices. In 1943, the British reformed the constitution, expanded voting rights to women and clergy, and lowered the requirements to hold government office (Smith, 1964: 164). The 1947 elections demonstrated Guyana's strong civic engagement, so Britain moved forward with introducing universal suffrage, self-governance, and formal independence. Following additional recommendations, universal adult suffrage was introduced in 1952, and constitutional reform was made in 1953. These reforms established a bicameral legislature with 24 elected members, and less British oversight (Smith, 1964: 165).

As these changes took place, a few prominent Guyanese individuals rose to power, notably Cheddi Jagan, a dentist who mainly represented the Indo-Guyanese population, and Linden Forbes Sampson Burnham, a barrister who primarily represented Afro-Guyanese. Jagan and Burnham looked past racial differences and united under communist rhetoric in the 1953 election under the PPP (People's Progressive Party). After the victory, Jagan served as the minister and Burnham acted as a deputy (Waters & Daniels, 2005: 284). Once in power, the PPP majority desired to operate independently from the British appointed Governor and begin its own phased progression to a socialist state.

The governor of Guyana found himself at risk of violating his oath of office and the country on the verge of a "one-party communist régime" (Smith, 1964: 172). Fearing that the PPP would abolish private property, abandon law and order, and undermine the economic interests of the colony, the British governor called for British intervention. A

mere hundred and thirty-three days after the PPP gained power, the British troops arrived and suspended the constitution. In response to the upheaval, Britain called for a commission to investigate the causes of the constitutional failure and to make recommendations for the future (Smith, 1964: 174).

The British operated the interim government from 1953-1957, which was led by appointed leaders (Smith, 1964: 180). During this period two important events took place. First, the Robertson Commission released its recommendations for Guyana following its constitutional crisis. First, the commission argued that Guiana:

> "is not yet ready for self-government by an all-elected legislature because a sense of responsibility, either political or economic, has not developed to a sufficient extent among the working peoples of the colony" (Palmer, 2010: 130).

Secondly, the commission found a pervasive socioeconomic resentment. Poorer groups viewed themselves as "being victims of profound injustice," while the wealthier groups feared violence from "an illiterate populace susceptible to the virus of communism." Both groups plotted ways to "eradicate the other" (Palmer, 2010:144). As a result of these findings, the commission recommended a constitutional amendment that would replace the elected majority with an equal number of elected and appointed members (DaCosta, 2007: 16).

The second significant event that took place during the interim government was the party schism. Burnham's attempt to take leadership of the PPP in 1955 resulted in a racial party split. In response to this, Burnham and his Afro-Guyanese supporters left the PPP to form the People's National Congress (PNC) in 1957, and the PPP remained the party for the Indo-Guyanese (Smith, 1995: 224). This party split exacerbated ethnic relations.

This ethnic conflict was further fueled by the election results in 1957. Despite the extensive campaigns against him, Cheddi Jagan leveraged the first-past-the post electoral system[1] and the growing East Indian population size to clench the majority of seats (Waters & Daniels, 2005; 285). The PPP won a majority of the seats, and the parliament organized under Jagan's leadership. The new government proposed and enacted economic development plans, as mentioned earlier, in addition to education and labor union plans that directly benefited the East Indian population (Thakur, 1973: 23). However, Jagan's strong communist rhetoric damaged local trust and international support.

The United States and Britain viewed Jagan as a threat to democratic ideals and national security due to his connections with Russia and Cuba. Western countries were not supportive of Jagan's government, but Jagan's government also did not want connections with western capitalist societies. By alienating foreign capitalist ties, Jagan's government found itself unable to fund its development programs. At one point Cuba and the Soviet Union offered generous loans at low interest, but Britain prohibited the exchange (Waters & Daniels, 2005: 294). Western countries then refused to monetarily support Guiana, leaving Guiana with poor economic conditions, high unemployment, and social unrest.

Without adequate funding, Jagan's government implemented a new tax policy in 1962. Riots ensued (Newman, 1964: 72). After the Grave Riots in February 1962, matters devolved further as the PNC, led by Burnham, and the United Force (UF), sought to

[1] First-Past-the-Post refers to a single member district where a candidate must receive a plurality to win the election. Because East Indians had the largest population size in Guyana, Jagan and his party members were able to win seats without reaching a majority.

undermine Jagan's government by leading strikes, riots, and protests for two years. In response to the unrest, Jagan pushed the *Labor Relations Bill*, which sought to nationalize labor unions. This bill ignited a labor strike, that impacted sugar plantations, rice fields, and international relations (Merrill, 1992). Unions in the United States funded an 80-day labor strike in Guiana, and also encouraged unions around the Caribbean to refuse to handle, ship, or trade Guianese goods. This led to mass food and fuel shortages during the summer of 1964 (Waters & Daniels, 2005: 298). After calling multiple states of emergency, British troops raided political party and labor union headquarters to dispose of crude weapons and guns; in the process they uncovered a plot, called "X 13" supposedly designed by Burnham to assassinate Jagan (Waters & Daniels, 2005: 298). This political and labor violence had strong ethnic undercurrents.

In response to the violence, the British intervened again, and revised the constitution, adopting a proportional representation system[2] with more accountability. In the 1964 elections Jagan won a plurality, but the UF (a capitalist party) and the PNC (a socialist party) agreed to form a coalition in order to deny Jagan power (Merrill, 1992). With Jagan out of power, the PNC sought to stabilize society to allow for a peaceful transition to independence (DaCosta, 2007: 17).

Political ideologies, structures, and responses heavily impacted Guyana's legitimacy and community health. From 1930-1953, under British rule, steps were taken to strengthen government institutions, improve social conditions, and increase representation. This development contributed greatly to the reductions in infant mortality rates. But, as representation and community activism increased, political parties emerged.

[2] Proportional representation refers to an electoral system that gains seats proportional to the number of votes cast.

Dr. Jagan introduced conflict theory to Guyana in the late 1940s, and communist ideas quickly took root. Different ethnic groups had been competing for resources for decades; the wealthy white planters controlled the market and exploited the labor groups. Although conflict theory could be used to explain the situation in Guyana, its proposed solutions proved problematic when the PPP took control of government.

From 1954-57, Guyana's progress on the Moyne Commission's recommendations halted. After British troops suspended the constitution and formed an interim government, the government solely prioritized stability. However, in response to this intervention, leaders like Jagan and Burnham argued that the West was the source of Guyana's difficulties. This rhetoric created widespread distrust in governing institutions.

The population's distrust in government led to notable health challenges. During this interim period, Guyana was still organized around plantations, and most medical and support services were provided through the plantation or local labor unions and associations (Newman, 1964: 45-6). But laborers began positioning themselves against the exploitive plantation systems, in addition to the colonial offices, and Guyanese government (Glasgow, 1970: 136-7). Individuals typically associate healthcare structures with government institutions, and any health-related program or hospital development was likely viewed with distrust and hesitancy. This institutional distrust likely contributed to the lack of significant health improvements, as evidenced by the stagnant infant mortality rates during this interim period.

After the interim government dissolved and elections resumed a few key factors contributed to institutional failures, which crippled the government's ability to address

social and health concerns. The lack of national identity, or sense of broader civic duty, allowed for ethnic disparities to widen, leading to the rise of ethnic violence.

A sense of national identity is foundational to the nation-building process, and as outlined in table 3, national identity has civic, cultural, and ethnic components. In Guyana, ethnic tension dated back to the post-emancipation period in the 1800s. Ethnic groups never assimilated into a collective Guyanese culture, and because many identified more with their ethnic group than with their country, ethnic tensions escalated further following universal suffrage. This lack of collective identity also led to the widening of ethnic disparities (Garner, 2008: 112-114). Jagan, who represented Indo-Guyanese communities, pushed economic and social plans that solely benefited them. Because Afro-Guyanese were not the recipients of this attention, the differences between the ethnic groups widened during this period. These widening ethnic disparities, as the Moyne Commission recognized in 1939, eventually led to violence. From 1957-1964, the country was rife with ethnic violence, riots, and labor strikes.

Disenfranchised groups often respond to ethnic disparities with violence (McLemore, 2007: 144). In Guyana, violence further undermined the government's ability to address social and health issues. First, institutional instability and violence often prevents governments from designing and implementing relevant policy. Without strong structures to design or enforce new initiatives, the government had its hands tied. Further, governments tend to prioritize conflict resolution above new health initiatives during conflict (Farag, 2013: 46). Instability also decreases foreign investment, intervention, or aid. If a country cannot unite to face its problems, then how could it utilize grants, pay back loans, or promote businesses? Third, violence limits individual's access to health

resources. All of these factors likely contributed to the lack of community health improvements from 1954-1966, as reflected in the infant mortality rates in table 2a.

Summary

This discussion has brought to light a few notable trends and factors when considering the lack of health improvements seen through infant mortality data. A glance at Table 1 shows how infant mortality improved from 161.3 per 1,000 births in 1926 to 57.3 per 1,000 births in 1966. However, Table 2a and Figure 1 demonstrate a few important trends. As demonstrated in Table 2a, from 1938-1953 infant mortality rates decreased by a total of 65.4% with the average yearly percent decrease of 16.2%. However, as demonstrated in table 2a infant mortality rates went from 57 per 1,000 births in 1954 to 57.1 per 1,000 in 1966. This 0.2% increase in mortality may not look significant, but it demonstrates that Guyana went from an average yearly percent decrease of 16.2% to an average yearly percent decrease of 1%. This is visualized in figure 2.

Labor and economic factors influenced infant mortality these main ways: rates initially improved due to job creation, fewer women working agricultural jobs, and effective economic investments. The rates stopped improving because of the poorly researched economic development plan, lack of economic diversification, and the inability to procure foreign investments or loans. Jagan's *Economic Development Plan* mostly focused on modernizing rice cultivation and widened ethnic disparities. Rather than investing in new industries or non-agricultural markets, it benefited this one area.

Further, because of the general adoption of communist ideology, Guyana isolated foreign investors, was denied loans and grants, and lacked the international support

necessary to develop (Grenada, 2011: 36). Political ideologies, structures, and responses influenced infant mortality in the following ways. First it created institutional distrust which decreased the utilization of healthcare services. Secondly, the lack of national identity widened ethnic disparities, which later motivated violent protests. From 1954-1966, improving health access and equity was not a national priority. Because Guyana lacked a peaceful and stable government, it was unable to establish rule of law and create a stable environment that would facilitate healthcare improvements.

CHAPTER FIVE

Trusteeship, Self-Government, and Independence in Barbados, 1926-1966

Introduction

Entering into the 1930s, Barbados endured some of its worst years economically, socially, and in terms of health. The global recession drove down the price of sugar, Barbados' only commodity, leaving the national budget and GDP at all-time lows (Carter, 2015: 79). The mothers were overworked; the low wages barely supported families; the healthcare system was underdeveloped, and the government disproportionally allocated resources based on race. The government's indifference toward the laboring class and the black Barbadians allowed conditions to deteriorate to the point where infant mortality rates in 1926 were 265.8 per 1,000 live births. However, between 1926 and 1966, the infant mortality rate dropped to 49.4 per 1,000 live births (Figure 1). What led to these drastic health improvements? This chapter will unpack the labor, economic, structural, and stabilizing factors that allowed for Barbados' strong growth leading up to independence.

This chapter will first discuss the social unrest in Barbados during the 1930s and the subsequent commission reports. In addition to the Moyne Commission, Barbados called for an independent commission to investigate the cause of the protests and the steps forward for development. Applying the recommendations from both commissions, Barbados began taking large strides towards its eventual independence in 1966.

The second section will explore the labor and economic factors that contributed to the rapid health improvements, when compared to other colonies. Housing and infrastructural improvements, the expansion of education programs, and increased land

ownership improved the local economy and livelihoods of many Barbadians. These improvements were accompanied by heavy investments in healthcare, leading to steady improvements in infant mortality rates.

The third section will outline the political factors that facilitated economic and social reforms. After emancipation and government centralization, the government was able to be more representative and effective. With the common good and other democratic values at the core of the government's objectives, the country experienced stability and support locally and internationally. The structure and subsequent stability allowed for the effective enforcement of public health initiatives and reform, leading to improved mortality rates.

Section 1: Civil Unrest and British Commissions (1926-45)

Similar to Guyana and all of the West indies, Barbados felt the effects of the global depression of the 1930s. These abysmal circumstances created the perfect environment for protest and revolt (DaCosta, 2007:15). Barbados was one of the poorest colonies; life expectancy was the lowest in the region, and child mortality by far the highest in the west indies (Chamberlin, 2010: 1). The price of sugar dropped significantly throughout the 1930s, and due to Barbados's small land mass and sugar-based economy, plantation owners were desperate to break even or cut a small profit. Plantations converted the land they used to grow vegetables and produce for their workers to sugar fields, and cut wages to all-time lows (Chamberlin, 2010: 2). Unemployment stood at an all-time high, and malaria, hookworm, and other diseases persisted around the country.

In addition to these poor economic conditions, the structures for poor relief continued to benefit the poor white Barbadians, while only providing the necessities for

the African poor (Chamberlin, 2010; 3). The ruling elite at the time did not listen to the pleas for equity but did understand the need for a livable income. But in the late 1930s, before the political turmoil, Barbadian leaders introduced a few important reforms. The legislature abolished the *Master's and Servant's Law*, proposed an old age pension plan, (Green, 2014: 523) and instituted a minimum wage (Fletcher, 1992: 262). Further, the government also introduced medical and dental inspections in schools and provided free lunch meals for 95% of Barbadian school children (Green, 2014: 527).

However, these reforms were not felt by the general population and were not sufficient to address the wide disparities. When Clement Payne arrived in Barbados in 1937, Barbadians were ready for significant change. Since Barbados never had strong labor groups or associations Payne partnered with other Marxist's thinkers to organize the working class of Barbados. The Barbadian authorities were wary of Payne's influence as he gathered more and more support. After a few legal disputes, the government deported Payne back to his home country of Trinidad. However, the Barbadian laboring class was outraged; bloody riots filled the streets of Georgetown and St. Michael, leaving 14 killed, 47 wounded, and hundreds incarcerated (Chamberlin, 2010: 5).

In response to this turmoil, Barbadian politicians called for an internal investigation called the Deane Commission to supplement the findings of the British Moyne Commission. This commission was led by middle class black Barbadian politicians and George Deane, a retired white judge. Over the course of a couple weeks Barbadian leadership heard the testimony of physicians, workers, and businessmen and women from all sectors about the island's deteriorating conditions. Nearly all who testified distanced themselves from Payne but argued for cooperative, not violent, reform

(Chamberlin, 2016: 211). The recommendations from this internal commission included providing public housing, appointing labor officers, and stripping vestries of control over poor relief.

The British colonial office agreed with the findings of the Deane Commission, and it reiterated the importance of reform through recommendations proposed by the Moyne Commission. This commission made similar recommendations but put a stronger emphasis on centralization, healthcare, and child welfare. It noted the importance of centralization (abolishing the vestry system) for Barbados to control corruption, promote accountability, and operate effectively (Fletcher, 1992: 264). Further, it cited the high infant and child mortality and called for higher wages, better nutrition, and compulsory education for children (Green, 2014: 524). Finally, recognizing the terrible plight of single working mothers, the commission called for a maternity ward, increased education, and more free services for women (Green, 2014: 528).

Barbados, a generally peaceful colony, with a negligible record of riots and rebellion, was shaken to its core by the violence in 1937. It quickly adopted changes and took strides towards positive development. One important aspect to note was the lack of Marxist groups or proponents following the deportation of Payne (Chamberlin, 2010: 185-6). Unlike Guyana where Marxism was introduced in the post-war period and could influence national politics in the 1952 elections, Marxism was loosely introduced to Barbados almost twenty years before it had adopted universal suffrage. In Barbados, the socialist rhetoric opened and empowered the Barbadian laborers to participate in government and their communities (Merritt, 2016: 204). The high rate of peaceful civic involvement greatly improved Barbados' future.

Section 2: Labor and Economic Factors (1939-1966)

Unlike Guyana, which was a Crown Colony, Barbados was much more independent and began reforming economic policy during the WWII period. Leading up to 1954, Barbados operated under peripheral capitalism which has three distinct processes: "the economic needs of the centre, the integration of the periphery to meet these needs, and the consequent internal organization of production within the periphery" (Howard, 1982: 97). This organization led to a very open economy with a highly skewed distribution of income. To balance the power and wealth disparities after Payne's deportation, significant changes were made. The emergence of labor community groups, plantation housing reforms, and the occupational shift from agriculture to service and industry facilitated significant health reforms and improvements.

Following the riots, the Barbados Labor Union and the Barbados Labor Party emerged as labor group representatives. During the 1940s-50s these groups organized and advocated for hospital improvements, increased wages, and better housing options. The organization of Barbadians into labor unions or groups helped organize individuals and give voice to their labor and health concerns (DaCosta, 2007: 15). Barbados was still grossly overpopulated, so these groups sought to reform immigration policy. Reducing the population would hypothetically drive up the demand for labor and increase wages, so some labor groups sought to establish emigration agreements with countries like the United States, United Kingdom, and other countries (DaCosta, 2007:18).

The formation of labor groups also motivated the formation of maternal support groups. Without accessible healthcare at the Barbados General Hospital, women founded their own "baby welfare clinics" with the goal of community support (Green, 2014: 528).

Women, who were already burdened by work, childrearing, took it upon themselves to support each other through these clinics or through informal work "gangs." Women also advocated for reforms by participating in labor groups and in government. Barbadians utilized advocacy and community support groups in order to improve labor conditions.

As labor unions and groups became more active, they were able to improve living conditions by advocating housing reform. Housing conditions across the island were poor. The *Local Housing Committee*, formed in 1943, focused on identifying the issues and proposing solutions for the poor living conditions on plantations and in the slums of Bridgetown. Based on the committee's recommendations, the Barbadian government bought land outside of Bridgetown and various plantations and began building houses on it. These houses were later rented at subsidized rates (Harris, 2007: 451). At the same time this was taking place, the *Master's and Servant's Act* was repealed. Historically, under this act, laborers were required to live on the plantations they worked. Workplace housing was used to control laborers and limit social mobility. After this act was repealed in 1945, laborers experienced a lot more freedom to relocate, own land, and also subsistence farm (Chamberlin, 2010: 77). By the mid 1950s, living conditions in Barbados had begun to improve (Chamberlin, 2010: 70)

Up until the general elections of 1951, when Barbados adopted universal suffrage, most labor reforms sought to improve the conditions for the plantation systems in place. However, occupations began to shift away from agriculture towards service and industrial jobs during the 1950s (Clayton & Potter, 1996: 177). By the 1960s, the newly industrialized sugar plantations still required a large labor force, but many young-educated Barbadians refused to work in the fields. This led to temporarily high

unemployment during the 1960s, but eventually the economy was able to provide more jobs for these educated individuals (Garcia-Zamor, 1977: 41). Due to the modernization of the sugar industry and the new availability of service jobs, working women had job opportunities that were not as physically taxing as agricultural work (Potter, 1981: 226). This allowed working women and men to better provide for themselves in addition to their children. Additionally, hard outdoor labor has a higher rate of injury and greater risk of disease, so the gradual shift away from agricultural work benefited the lives of many laborers (Szreter, 2004).

These improvements in labor conditions were accompanied by strong economic investments. The Barbadian government closely followed the recommendations of the Deane and Moyne Commissions but also adjusted its economic policy after it received the Richardson Report. In 1954 the Richardson Report pointed out that Barbados needed to further prioritize economic diversification and invest more in industries outside of agriculture (Howard, 1982: 107). The report outlined a few ways the government could promote development: foreign direct investment, vestry reform, and social services (Chamberlin, 2010: 70). Rather than blindly navigating development like Guyana, Barbados received multiple strong reports and recommendations that it judicially followed.

During the 1950s, the Barbadian government heavily invested in infrastructure in order to improve trade and attract investment. In order to maximize sugar exports and trade potential, the government, with subsidies from the colonial office, invested in and built a deep-water harbor. Additionally, the Barbadian government prioritized building a tourist industry, by making efforts to modernize its infrastructure, primarily its airport,

electricity services, and roads (DaCosta, 2007: 17). In the 1950s, using the *Colonial Development and Welfare Fund*, the government expanded the Seawell Airport to allow for jets, and larger aircraft (Chamberlin, 2010: 69). Expanding roads and services outside of Bridgetown was also a national priority. The Barbados Light and Power Company made a partnership in the 1950s, which gave it the cash flow to provide power to Bridgetown and surrounding areas. With additional funding it was able to further expand its service coverage leading up to independence (Carter, 2012:12).

This heavy investment in the infrastructure led to significant health improvements through three main mechanisms. First, by increasing the amount of paved roads and streetlights, less people were walking on the soil with their bare feet. Hookworm was very prevalent in the poor coastal areas of Barbados (Wycliff, 1913:14), and the introduction of paved roads decreased the prevalence of this infection (Hotez, 2013:28-9). Second, infrastructural and housing investments decreased overcrowding and the risk of disease transmission. Finally, as misconceptions about disease and poverty were slowly resolved, the government and other organizations sought to expand education systems and provide medical support for women. Under the *Colonial Development and Welfare Act*, Barbados received the funding necessary to build a maternity hospital in Bridgetown, which opened in 1948 (Fletcher, 1992: 264). This improved healthcare access for women.

Barbados' maintained conservative fiscal policy and aggressively sought private foreign investments (Clayton & Potter, 1996: 179). While many countries in the West Indies took out loans to fund development projects, Barbados remained very frugal with its spending and budgeting. Barbados maintained a balanced-budget or small deficit

during this pre-independence period. It did not rely solely on support grants, as Guyana did, and found local streams of income (DaCosta, 2007:17). In addition to this, Barbados was well aware of the need to make foreign partnerships. In addition to expanding its tourism sector through infrastructural developments, it expanded trade agreements, which increased its taxable capacity starting in the 1950s (Howard, 1982: 98).

Barbados took significant steps to accommodate its labor force and bolster its economy. The GDP in Barbados in the mid 1950s was around US $180-190, which was very similar to other Caribbean colonies at the time. However, by the mid-1960s its GDP had risen to US$469, which marks significant improvement (DaCosta, 2007:17). This strong economic growth corresponds to strong improvements in community health, as demonstrated by the infant mortality rate. As the economy grows, health outcomes tend to improve. As Barbados invested in working conditions, housing, hospitals, and schools, it provided Barbadians with multiple ways to escape their cycle of poverty. The access to better living conditions through the housing project along with the higher wages received as a result of the introduction of the minimum wage improved general Barbadian's quality of life. Notably this improved general nutrition, and children's capacity to attend school regularly. Infant mortality rates mirror these improved health conditions. From 1940 until 1966, the infant mortality rates dropped from 180 per 1,000 live births to 48 per 1,000 live births—a 90% drop (Table 2).

Section 3: Political Structures and Stability 1939-1966

When examining the political structures and the overall stability of Barbados' government and society, it is vital to acknowledge that Barbados had enjoyed a greater

level of independence than most other English-speaking colonies in the West Indies. In 1927, rather than becoming a Crown Colony, Barbados adopted a few constitutional changes that increased representation and allowed for some British oversight. The white planter class dominated all political and societal structures—from the house of assembly and national government to the local parish offices and churches. These planters used and manipulated the structures in place to benefit their sugar plantations and retain a subservient and inexpensive labor force. However, following the riots in the 1937, the Deane Commission and the Moyne Commission called for drastic government reforms in order to improve government effectiveness, prevent corruption, and appease the predominantly black population. This section will outline how centralization, strong representation, forward foreign relations, and peaceful transitions of power created a healthier society, better prepared to face the challenges following independence.

Immediately following the 1937 riots the Barbadian government deported, imprisoned and effectively eliminated seemingly dangerous agitators. Unlike Guyana, where Cheddi Jagan and other socialists remained active following their destructive riots, Barbados purged Bridgetown and surrounding areas of socialist radicals (Merritt, 2016: 207). This was important because it removed extremist voices from society and created room for moderate leaders to emerge. Middle class black politicians and community leaders became the moderate voices in the country and began supporting the cause of the oppressed Barbadian labors. The Barbados Progressive League (BPL) a moderate activist organization secured 5 seats in the 1940 election and was able to push through laws to protect trade unions (Chamberlin, 2010: 153). That policy victory marked the beginning

of a massive transition of power away from the white planters to the black Barbadians (Fletcher, 1992: 264).

In 1943 the government lowered the voting requirements based on property ownership, allowing many men and women to vote for the first time (Fletcher, 1992: 264). Finally, in 1951, Barbados adopted Universal Voting Rights, allowing men and women, regardless of their education, income, or race to vote for the first time in their history. The members of the House of Assembly were elected in 12 dual-member constituencies by first-past-the-post voting. Three political parties contested seats: the Barbados Labor party (BLP), the Barbados Electors' Association (BEA), and the West Indian National Congress Party (CP). The BLP won 15/24 seats, including a seat for Edna Ermyntrude Bourne, the first woman elected to the House of Assembly (KnowledgeWalk Institute, 2019). With a black dominated House of Assembly, it was becoming increasingly difficult for the governor and the legislative council, which remained in the hands of white plantation owners, to ignore the demands of that black majority (Chamberlin, 2010: 157).

At the time of this election, power still rested in the hands of the local parishes and the legislative council. In general, the vestry system, controlled finances and domestic needs, while the legislative council focused on foreign trade agreements. The decentralized structure allowed for the provision of poor relief, social services, and health programs, and as a result, the vestry system held the majority of the country's money and power (Fletcher, 1992: 265). Unlike most other countries in the West Indies, the Barbadian legislative council and governor prioritized structural openness and strong international partnerships. This emphasis on openness did take precedence to economic

diversification and benefited the wealthy businessmen and the sugar industries (Howard, 1982: 98). Although increased representation was a start, as the Deane and Moyne commissions mentioned, abolishing the vestry system and centralizing the government would remove inefficiencies and to streamline social programs across the country.

In 1954, after extensive negotiation, the legislative council approved a centralization policy, which was described as:

> The reform initiated was a three-pronged approach to the reorganization of local government services revolving around the structure of the local government, public health, and public assistance…were put into effect in 1959." (Fletcher, 1992: 265)

This policy finally shifted power away from the vestries to the House of Assembly. This, in addition to the increased representation, allowed for significant reforms to take place.

Although this centralization policy was key for efficient government, other developmental policies were passed with the goal of providing better social services, attracting industry, and economic growth. In addition to the new maternity ward at Barbados General Hospital, the House passed the *Department of Medical Services Act* in 1950 which reformed the organization of health services on the island over the course of ten years. These investments increased access, improved sanitation, and increased the autonomy of the Chief Medical officers (Merritt, 2016: 253). Additionally, in 1951 the House passed *The Pioneer Industries Act*, which provided tax benefits to manufacturers in the country (Potter, 1996: 177). This Act was followed by the *Barbados Development Act* in 1955, which established a development board. This act also created other incentives for industry and foreign partnerships (Potter, 1981: 225). These policies set up the government structures necessary to interact with foreign companies and investors, and

further signaled to the colonial office that Barbados was ready for self-government and independence.

While Grantley Adams served as the premier in the House of Assembly, he led the efforts to create an Independence Federation with other West Indian colonies. The goal of the federation was to open up trade and provide support as the colonies negotiated the terms of independence. Every colony, except for British Guiana and Honduras, agreed to participate in the federation; however, the federation fell through in 1962, causing many to question the timeline for independence. Although unsuccessful, this venture signaled to Britain and other countries around the world that Barbados had strong leadership and strong self-government (Chamberlin, 2010: 157-60). Locally, many criticized Adams for focusing more on foreign relations than social progress and development. Due to that criticism, the Democratic Labor Party (DLP), under the leadership of Erroll Barrow, won the majority in the 1961 elections, displacing Grantley Adams with the BLP (KnowledgeWalk Institute, 2019). Errol Barrow wanted to focus on local issues exclusively. Although he had to handle the aftermath of the failed federation, he made it clear that, "we are not prepared to postpone or abandon our programme of free secondary education or any other immediate projects" (Chamberlin, 2010:180).

The government under Adams' leadership initiated few reforms leading up to 1961. However, Barrow's government was deeply concerned with social programs and general well-being. With the new freedom that came with total internal-self-government in 1961 (Parliament, 2020), the economy was growing; it had very little debt, and it was in a position to initiate change (Chamberlin, 2010: 181). Starting in 1961 the government:

> "proposed to implement free and compulsory schooling and to expand education facilities at every level, it proposed to introduce school meals, it

> promised to overhaul the health care system, introduce maternity leave and improve pre- and post-natal care, to launch a crash programme to relieve unemployment and to introduce a social security system, including health insurance" (Chamberlin, 2010: 180)

Barrow sought to upend the "backwards" education system and invest money in the future of the country. He argued education was essential "for the promotion of social and economic development, as well as for Barbados to keep pace with other progressive nations" (Layne, 1975: 46). Barrow's government education plans were successful—from 1960-1968 enrolment in secondary education increased from 34.6% to 67% (Layne 1975: 47).

In addition to the educational initiatives, the government considered infrastructure as key to proper development. So, it worked closely with the Barbados Light & Power Company to further expand and build key infrastructure around the island. Some commented that:

> "they [the government] seek to create a revitalized infrastructure necessary for economic growth, a task traditionally neglected by the usual UK programs which were more concerned with social welfare purposes than with new productive projects" (Carter, 2012: 11)

The infrastructure and power projects were initiated to attract tourists and businesses and improve quality of life. Investing specifically in infrastructure and education as it approached independence was key because foreign companies later cited strong infrastructure and high literacy as the two primary reasons they choose to complete business with or invest in Barbados (Potter, 1996: 179).

These government priorities were key for a few reasons. The healthcare, education, and infrastructure policies provided "escape" routes for poor Barbadian households. Greater access to healthcare improved overall health, reducing general

morbidity (Merritt, 2016). Compulsory education not only benefited the children, but it also provided childcare and support for working mothers. Infrastructure developments allowed for more transportation, and likely reduced the spread of virus or parasitic infections (Wickliffe, 1913; 14-6). As the government built more foreign partnerships, more service and skilled labor jobs became available. With higher paying jobs, accessible healthcare, childcare through education, and better living and transportation services, Barbadian households could escape the clutches of poverty and disease.

The government structures and civic stability contributed greatly to reductions in infant mortality. As seen in Figure 1, Barbados experienced a steady drop in infant mortality rates from 1938 through independence in 1966. Four political factors likely contributed to this. First, centralization policy eliminated corruption, allowing for more efficient and equitable policy implementation. Second, Barbados' strong foreign partnerships helped facilitate economic diversification, which allowed for greater stability and more job opportunities. Third, increased representation provided historically disenfranchised groups with a legitimate voice in government and allowed women and minorities to help establish policy priorities. Finally, Barbados experienced peaceful transitions of power, and that level of stability allowed for the government to proceed with social reforms and health improvements.

Summary

Overall, looking at the economic and political improvements in Barbados following the period of social unrest in 1937 a few key features are of note. As seen in Figure 2a, from 1938 to 1952, the infant mortality rate in Barbados decreased from 222

per 1,000 births to 145 per 1,000 births. This reduction of 34.68% is significant (Table 2a), and many attribute this improvement to the reductions in poverty. Additionally, from 1952 to 1966, infant mortality rates dropped from 145 per 1,000 births to 49.1 per 1,000 births: a reduction of 66.14% (Table 2a). This is visualized in figure 2. As mentioned throughout this chapter, the rise of labor groups, improvements in housing and infrastructure, and economic diversification all contributed to these reductions. Further, political factors like centralization, strong representation, forward foreign relations, and peaceful transitions of power also facilitated these health improvements.

Barbados' health improved from 265.8 per 1,000 births in 1926 to 49.4 per 1,000 births in 1966. In stark contrast to Guyana, which lacked a robust economy and some foundational components of governance, Barbados intentionally bolstered its economy and strengthened its institutions, and Barbados' rates did not flat-line but drastically improved. Overall, the strong economic policy in addition to effective and representative governance facilitated the drastic reductions in infant mortality leading up to independence in 1966.

CHAPTER SIX

Health and Development

This thesis has examined how the independent variables of *labor and economics*, and *political structure and stability* affected the dependent variable, infant mortality from emancipation in 1834 through independence in 1966. In this conclusion, two additional topics are discussed. The first section will explore post-independence developments in Guyana and Barbados, further demonstrating how Guyana became the laggard and how Barbados became a role-model in health development. The second section will explore future research prospects in light of several leading social scientific developmental theories.

Section 1: Post-Independence Developments

Despite Guyana's rocky period leading up to independence, the South American nation had only fallen slightly behind Barbados on the important measure of infant mortality in 1966. However, Guyana began to drastically diverge from 1966 to the present day (Grenade 2011: 26). This was mainly because from 1966 until 1980 Guyana adopted the socio-economic and political strategy of cooperative socialism—which allowed for state-run companies and an executive presidency. These policies discouraged private foreign investment, alienating Guyana from international support and led to more instability and violence (DaCosta, 2007: 21). Further, without a strong foundation in liberal democracy, the government was rife with corruption, which perpetuated its state of underdevelopment.

In 1980 Guyana adopted a new constitution and Burnham became the new executive. The time for reform seemed ripe. However, the economic collapse in the late 1980s in addition to the death of Burnham robbed the country of this chance (Merrill, 1992). Consequently, however promising the post 1980 changes appeared, Guyana's government has repeatedly proved too weak to accommodate modern day challenges.

Barbados had a very different experience following independence. Consistent with democratic liberalism, Barbados maintained an open economy and sought to encourage the common good through expanding social policies. Maintaining a democratic government, Barbados incentivized businesses, sought foreign partnerships, and saved instead of amassing debt (DaCosta, 2007: 22). It had peaceful transitions of power, and with the recession in the 1980s, Barbados was diversified enough to endure without many setbacks to its policy aims. Many attribute Barbados' successful post-independence policy to its political unity, backed by its institutional capacity to implement plans, save, and access new markets (DaCosta, 2007: 22)

Guyana's development failures and Barbados' successes heavily influenced the rates at which they improved their infant mortality rates. Guyana's infant mortality rates did not drop below 50 per 1,000 births until 1986, and since then progress has been slow. As seen in Table 1, in 2015, mortality rates in Guyana were 26.7 per 1,000 births. This leaves Guyana with the second worst infant mortality rate in the Commonwealth Caribbean, with only Dominica surpassing it due to recent natural disasters. Barbados has been able to leverage its diversified economy and strong institutions in order to drastically improve health conditions and infant mortality rates through the present day. As seen in table 1, in 2017, infant mortality rates in Barbados were 11.9 per 1,000 live

births. Today, Barbados is considered one of the most developed Caribbean islands and has one of the lowest infant mortality rates in the region, just behind the Bahamas (Poliacof, 2019).

One can see the full scope of post-independence development through Tables 2a-b, Table 4, Figure 1, and Figure 2. The tables show the yearly variation and percent rate of change in infant mortality in both countries from 1912-2018. Further, Table 4 summarizes the key areas of difference Guyana and Barbados at the time of independence. Figure 1 visualizes the infant mortality rates from 1926-2015 and Figure 2 provides a visual for the rate of change in infant mortality rates.

Section 2: Theories and Future Areas of Research

There are various political and sociological theories of development and health that related to this discussion. While this thesis focused on examining how labor and economic factors and political structures and stability influenced infant mortality rates, it has suggested other variables for further study. They include: women's empowerment, government legitimacy, national identity and social cohesion, and cycles of development. Future research into topics may further inform modern day health policy.

Women's Empowerment

First, women's empowerment policies greatly bolster community health. When looking at labor and gender demographics, Guyana seemed to have an advantage over Barbados by having more normalized gender demographics and a diverse labor pool. However, rather than seeking to include female voices in government or advocacy, Guyana remained gender exclusive. Women did form types of associations in this

patriarchal society, but they did not have the authority or the ability to influence policy as men did (Garner, 2008;105). The lack of a women's voice in government likely contributed to Guyana's lack of education, social, and health policy.

Barbados, however, was initially disadvantaged, compared with Guyana. Its high percentages of women and the plantation's dependence on female laborers, exacerbated infant and child mortality on the island for decades. However, with women as the backbone of the economy and society, their values were factored into policy determinations. Following the Dean and Moyne Commission, the Barbadian government set minimum wages, funded the construction of a maternity ward, and heavily invested in education. This, in addition to the election and appointments of female representatives in all levels of government starting in the 1950s, empowered women, their families, and Barbados itself. Barbados serves as an example of how enfranchising women influenced policy objectives and the course of development. Many NGOs like the Gates Foundation have recognized the importance of women's empowerment and health to nation-building and development (Gates, 2019; 27). These findings suggest similar conclusions, but further research would need to examine its implications in modern day society.

Legitimacy

Secondly, the findings suggest the legitimacy is key not only to state-building and establishing rule of law, but also to healthcare institutions. In Guyana, socialism may have undermined the communities overall trust in institutions. Marxist theory states that the bourgeoisie gain power through the exploitation of the proletariat (mass laborers). It arms the masses to take back power. Usually, oligarchical governments form from socialist revolts, and this was demonstrated in Guyana. Moving from a colonial

bureaucracy, Guyana became a socialist oligarchical bureaucracy (Garcia-Zamor, 1977: 31). This shift was unsuccessful for a few reasons.

First, the Guyanese people and government blamed Britain and foreigners for its oppression and demanded reparations. By not taking responsibility for the situation but blaming foreign involvement, Guyana isolated itself from potential partners and undermined its own sense of social responsibility. Second, in the early 1960s when the Guyanese government sought to raise taxes to fund developmental plans, the country erupted in protest. The distrust in government and ethnic conflict likely undermined the government's authority and legitimacy. Undermining the legitimacy of a government undermines its ability to engage in state-building activities and its ability to uphold the rule of law (Fukuyama, 2011: 466). This is further supported by the election fraud and social unrest in Guyana leading into the 1980s. Lack of legitimacy, as evidenced by distrust in government leads to non-compliance to public health policies and distrust in healthcare institutions (Caribbean, 2018). Although this is an area for further study, these findings may suggest that socialism in Guyana undermined its ability to establish effective governance, enact social reforms, and its ability to improve community health.

National Identity and Social Cohesion

Thirdly, the different outcomes in Barbados and Guyana support the theory that national identity and social cohesion are foundational to nation-building. During times of instability, individuals tend to look toward their immediate community for support, and in fragmented societies instability increases division (Grotenhuis, 2016: 125). As demonstrated in Table 3, Barbados and Guyana shared similar levels of civic identity; however, at the time of independence, Guyana lacked both the cultural and ethnic identity

that is key to forming a cohesive national identity. The lack of national identity likely undermined the effectiveness and legitimacy of the government likely as a result of the "Tyranny of the Cousins" theory. This theory states that people in power will seek to divert resources, positions, and favors to their family, tribes, or common race, at the expense of the outgroup (Fukuyama, 2011: 58-9). This was strongly seen in Guyana starting in 1958. When Cheddi Jagan led the government with the PPP from 1958-1962, most of his programs sought to help the East Indian population and develop the agricultural sectors. Following this, when Burnham led the government from 1963-1985, he also focused primarily on the needs of the Afro-Guyanese community. Election fraud damaged representation and guaranteed Afro-Guyanese government control during those time periods (Garner, 2008: 112-15). The differential treatment that resulted from the lack of nationalism diminished the government's ability to improve social conditions and community's ability to access resources.

Barbados' society was generally cohesive, as seen by looking at Shulman's elements and components of national identity in Table 3 (Grotenhuis, 2016: 128). Black Barbarians had developed their own cultural identity, that highly respected women, valued education, and sought relief and deliverance from poverty. Although it collectively lacked a political ideology, political pressures and the general desire for representation led to the widespread adoption of democratic liberalism. This national identity and sense of cohesion allowed for effective health improvements to take place, thus lowering mortality rates. Future research could further examine how the lack of social cohesion can undermine legitimacy through the "Tyranny of the Cousins" in unstable developing countries.

Virtuous and Vicious Cycles / Cycles of Poverty

Finally, as mentioned throughout the project, Guyana and Barbados had conditions from 1834-1926 that kept the majority of their population in a cycle of poverty. This cycle is caused by lack of resources, malnutrition, higher prevalence of disease, low wages and other factors, so alleviation efforts ought to create escape routes from this cycle. Guyana invested in labor unions, agricultural cultivation, and in wage improvements, but did not heavily invest in healthcare, nutrition programs, education, or industrialization. Because the government did not create escape plans and because the country experienced violence and instability, many Guyanese communities were trapped in poverty until the beginning of the twenty-first century. Barbados, on the other hand, was intentional at improving health conditions, infrastructure, education, wages, and job diversity. It centralized its government to ensure the reforms were efficient and effectively carried through. Through these initial efforts, the government created multiple escape routes, allowing many to enter the middle class.

In the context of political development theory, the cycle of poverty is likely related to the concept of the vicious and virtuous cycles. This model suggests that countries exist in either cycle, or can switch between them regularly (Guillermo, 2006: 11). The vicious cycle is described as a system that enables extractive or exploitive political institutions that use resources to secure power, rather than benefit the nation. It creates excessive income inequalities and traps the laboring classes in poverty, preventing them from benefiting from economic growth (Acemoglu & Robinson, 2006: 343-4). The virtuous cycle is described as "a powerful process of positive feedback that preserves these institutions in the face of attempts at undermining them and in fact, sets into motion

forces that lend to greater inclusiveness" (Acemoglu & Robinson, 2006: 308). An important area of developmental studies examines major events that push governments into virtuous or vicious cycles. On a cursory glance, it would appear that the social turmoil in Guyana in the 1930s further entrenched it in its vicious cycle, rather than delivering it into a virtuous one. Further it would appear that Barbados began escaping the vicious cycle in 1954, following the centralization policy which officially removed power from the planting elite. Future research should examine the connection between these political cycles of underdevelopment and the cycle of poverty in developing countries.

Conclusions and Suggestions

This thesis examined how labor, economic, political, and stability factors influenced infant mortality rates in Barbados and Guyana from 1824-1966. However, this study has also presented future areas of research in the field of international political development and healthcare advocacy. States should approach development differently due to the effects of geographic composition, cultural traditions, access to resources, and existing political institutions on political and economic development. Because national development is not a "one size fits all" process, the specific factors that impaired Guyana or benefited Barbados may have different effects in different countries. Regardless of these challenges, states hoping to improve the health and prosperity of their population ought to consider the various processes that could undermine or enable health improvements.

Understanding the history and the factors at play when formulating development policy is key to success. Understanding developmental theory is also becoming

increasingly crucial to health care, disease control and prevention, and public health initiatives. As demonstrated in this thesis, measurable improvements in health often result from increasing representation and drafting intentional policy. Efforts to improve health today should consider the political, economic, and labor conditions, among other things, when designing interventions. This approach is seen in the emerging field of One Health. One Health is a new discipline of science that studies the interactions between ecology, animals, humans, economics, and policy, specifically looking at the system's effects on health. It seeks holistic public health interventions and may be an interesting field to employ when studying developmental policy in the future.

Studying the healthcare development failures and successes in Guyana and Barbados revealed certain factors that were most important at improving health outcomes. economically, labor unions, higher wages, economic diversification, foreign partnerships, and industrialization all contribute to better health outcomes. Politically, democratic structures, national identity, rule of law and other foundational components of governance create a government and country capable of tackling complex health challenges, like infant mortality. These factors explain how Guyana, despite its initial advantages was unable to address its high infant mortality rates through improving community health. But these factors are strongly demonstrated in Barbados.

Overall, as healthcare providers, international health workers, or governments in developing countries seek to improve community health, this thesis argues that a multidimensional approach is key. Although investing in hospitals and vaccine programs also lead to improvements, governments must be intentional to bolster its economic systems and improve its own governing intuitions. Creating community-based labor

associations that peacefully advocate and empower its members may help improve wages, working conditions, and the sense of self-responsibility in developing countries.

Further, investing in education systems and social programs may help developing countries experience more development rather than just short-term economic growth. Finally, encouraging strong governance and democratic values may help instill trust in government institutions and increase their effectiveness. Each of these approaches may tangentially help countries improve health concerns. As seen in Guyana and Barbados, slight divergences in structures and policies eventually evolve into major differences of outcome. Although the specific factors at play in Guyana and Barbados may not be as influential in other developing countries today, looking forward, health professionals and government leaders alike should consider this holistic approach when designing healthcare development policy.

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