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THESIS

**UNDERSTANDING VARIATIONS OF LATIN
AMERICAN COUNTRIES' RESPONSES TO THE 2019
CORONAVIRUS PANDEMIC**

by

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March 2022

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**UNDERSTANDING VARIATIONS OF LATIN AMERICAN COUNTRIES'
RESPONSES TO THE 2019 CORONAVIRUS PANDEMIC**

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ABSTRACT

This research reveals why Latin American states failed to control the rapid spread of the 2019 Coronavirus Disease (COVID-19) throughout the region. To answer this question, the author studies the policies, government responses, and state capacity to implement those policies, putting emphasis on understanding the role of leadership, welfare state capacity, and inequality in the shaping of pandemic outcomes for Chile and Uruguay. These two countries were chosen as part of the study because of their similarities in terms of economic throughput, health, and social welfare capacity, and for having non-populist leaders in power during the pandemic. The results of the analysis revealed that states with strong, egalitarian welfare systems have a higher success rate at controlling the initial onsets of pandemics. On the other hand, states with strong welfare systems and unequal access to the welfare system are more vulnerable to the effects of pandemics. States with weak welfare systems are not capable of controlling a pandemic, regardless of how equal access to the welfare systems is. As a result, the ineffectiveness of Latin American governments to control the spread of COVID-19 is attributed to the low economic capacity to tend to the financial and health needs of the population in a region where high informal employment is the norm.

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EXECUTIVE SUMMARY

The emergence of the coronavirus disease in 2019 changed everyone's lives, as the virus quickly spread all over the world. When the virus arrived in Latin America, it spread at a more rapidly rate than in other regions, despite governments implementing very restrictive control measures. As a result, Latin America became the epicenter of the pandemic in just three short months, making us wonder why Latin American states failed to control the rapid spread of COVID-19.

To determine the challenges experienced in the region because of COVID-19, I reviewed the COVID-19 responses of Chile and Uruguay, bringing to light which governmental strategies, policies, and social programs aided or hindered each state's ability to control the spread of COVID-19, a virus that has caused a chaotic global pandemic. Despite both states having similarities in state capacity, infrastructure, and economic strength relative to their populations, they took different approaches and endured different fates in their attempts to combat the spread of COVID-19.

To determine how the diverse measures adopted by each state positively or negatively affected their COVID-19 response, I studied and analyzed their pandemic control and response plans, and reviewed and evaluated their welfare state and medical response capacity, welfare spending, inequalities within the population. Lastly, I reviewed the effectiveness of the measures adopted in efforts to control the spread of COVID-19. These analyses were conducted with the objective of establishing the role of leadership, welfare state capacity, and inequality in shaping the outcomes of each state's response.

Through this research, I have determined that Uruguay was successful at containing the spread of COVID-19 from March until October 2020 because the government rapidly adopted science-backed policies that promoted social distancing and mask-wearing protocols, and increased hygiene measures and voluntary mobility restrictions. This strategy employed the WHO's suggested test, trace, and isolate strategy, and was successful thanks to the ingenuity of scientists who used pool testing and developed their

own testing capabilities to account for Uruguay's lack of initial testing capacity and the scarcity of test kits being developed in other countries.

It was also observed that the differences in the approaches taken by each state had to do with the level of understanding of government officials on the state's realities and their respective state capacity to respond, the quality and type of existing social welfare programs, the ability of individuals to have access to unemployment benefits and medical care, and the state capacity to provide unemployment benefits to the majority of the population for several months.

As a result, I conclude that states with strong, equalitarian healthcare and economic support systems (welfare systems) have a higher success rate at controlling the initial onsets of a pandemic such as the one caused by COVID-19. On the other hand, states with strong welfare systems and significant levels of unequal access to the welfare system are more vulnerable to the effects of pandemics. Moreover, states with weak welfare systems are not capable of controlling the spread of COVID-19, regardless of how equal the access to those welfare systems is. As a result, the ineffectiveness of Latin American governments to control the spread of COVID-19 could be attributed to the low economic capacity to tend to the financial and health needs of the population in a region where high informal employment is the norm. The populations in highly informal communities ignored social distancing and stay-home requirements as people took to the streets to make a living.

The analysis of the adopted policies used to combat COVID-19 in Latin America help us identify areas of improvement and limitations in areas such as governance, policy, and state capacity. The understanding of these limitations provides us with the opportunity to improve future responses as well as the ability to shape development of future United States' policies and programs that affect regional humanitarian assistance, national security, and economic postures.

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This thesis is dedicated to the loving memory of my uncles, Edison Fernando Armijos Solis and Bolivar Daniel Armijos, both departed but never forgotten. Edie, you constantly pushed me to excel, supported me during the good and bad of life, and was always present as a father figure when Dad was not able to. I will always miss you.

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I. INTRODUCTION

A. PROBLEM STATEMENT

The emergence of the novel coronavirus in Wuhan City, China, in 2019 changed everyone's lives as the viral infection spread rapidly throughout the world, causing a major pandemic. Upon the arrival of the 2019 Coronavirus Disease (COVID-19) to Latin America, governments in the region took diverse postures.¹ Some downplayed the severity of the disease while others enforced heavy lockdowns in an attempt to contain the spread of the virus.² However, in spite their efforts, or lack thereof, the region became the epicenter of the pandemic in just three months.³ This research seeks to reveal why Latin American states failed to control the rapid spread of COVID-19 throughout the region as a source to understand the region's limitations with regard to state policies, governance, and capacity of response to a global pandemic. Insight into this information has the potential to shape and improve future United States' policies with regard to national security, commerce, and humanitarian assistance in the region.

1. Mapping the Spread of COVID-19 in Latin America

The first registered case of COVID-19 in Latin America was identified in Chile on 23 February 2020.⁴ As the virus spread rapidly, if unevenly, throughout the region, Latin American states took diverse postures to protect their citizens from the disease, with varying degrees of effectiveness. For example, on one hand, responses by governments like Peru, Honduras, Guatemala, among others, were characterized by strict lockdowns that

¹ Diana Enriquez, Sebastián Rojas Cabal, and Miguel A. Centeno, "Latin America's COVID-19 Nightmare," *Foreign Affairs*, September 1, 2020, <https://www.foreignaffairs.com/articles/americas/2020-09-01/latin-americas-covid-19-nightmare>.

² Enriquez, Cabal, and Centeno.

³ Jose Diaz Jr., Alex Pena, and Manuel Bojorquez, "Latin America: The Global Epicenter of COVID-19," CBS News, August 14, 2020, <https://www.cbsnews.com/news/latin-america-the-global-epicenter-of-covid-19/>.

⁴ Thomas Hale et al., "Oxford COVID-19 Government Response Tracker" (Oxford: Blavatnik School of Government, University of Oxford, May 25, 2020), <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker>.

used police and armed forces to enforce measures and control movement of its citizens, while on the other hand, states like Nicaragua promoted large events and marches while limiting mitigation measures to screening and maybe quarantining international travelers.⁵ Like in the United States, variations in response were also observed within states.⁶

Oxford University's *Coronavirus Government Response Tracker* captures the variation in the stringency of government responses across the world, defined as the level of restrictiveness of COVID-19 policy packages implemented by governments over time.⁷ This *stringency* index systematically measures government policies and interventions across nine standardized indicators—public information campaigns, school and workplace closings, public event cancellations, restrictions on gathering size, internal movement, and international travel, public transportation closures, and stay at home requirements—to create a composite value.⁸ The *stringency* index values range from 0 to 100 and move from less to more stringent.⁹

Table 1 includes the stringency index for Latin American states, with countries color-coded in green, yellow, and red to differentiate low, medium, and high stringency policies, respectively. A low stringency level is given to states whose initial response only used light international travel controls, public information campaigns, or emergency healthcare investments. A medium stringency level is given to states that implemented at least five of the nine tracked measures and whose stringency index level is fewer than 73,

⁵ Hale et al.; Elizabeth Gonzalez et al., “The Coronavirus in Latin America,” *AS/COA*, September 10, 2020, <https://www.as-coa.org/articles/coronavirus-latin-america>; Agencia EFE, “El Gobierno de Nicaragua Desafía al Coronavirus con una Marcha Multitudinaria [The Government of Nicaragua Challenges Coronavirus with a Massive March],” March 15, 2020, sec. Sociedad, <https://www.efe.com/efe/espana/sociedad/el-gobierno-de-nicaragua-desafia-al-coronavirus-con-una-marcha-multitudinaria/10004-4196161>.

⁶ Hale et al., “Oxford COVID-19 Government Response Tracker.”

⁷ Hale et al.

⁸ Hale et al.

⁹ Hale et al., 42–51. A value of 0 reflects that no restrictive actions taken by the state, while a value of 100 shows nationwide lockdowns involving stay at home orders with restrictions on movement, closing of borders, schools, non-essential workplaces, and public transportation, limits on gatherings to fewer than 10 people, cancellation of all public events, and promotion of social distancing and public health campaigns.

as it reflects states that only required some levels of school closing (e.g., just high school, or just public schools), and provided the most mobility for people. A high stringency level is given to states that implemented all nine measures, and whose stringency index level exceeds 73. These states at a minimum required closing of all schools, work from home, canceling of all public events, restricting large gatherings, requiring people to only leave the house for essential trips to the grocery store or hospitals, and quarantining of passengers arriving from abroad.

A review of the preliminary analysis reveals interesting variation in responses within the region. First, thirteen of the thirty three states in Latin American adopted some preventive actions as early as mid-January 2020.¹⁰ Early policy response adopters like Argentina, Barbados, Brazil, Colombia, Cuba, Ecuador, El Salvador, Haiti, and Paraguay limited their initial actions to creating information campaigns in preparation for a possible introduction of the virus. Others such as Guatemala, Guyana, and Panama conducted screenings of international travelers in addition to similar information campaigns. And Jamaica additionally required a mandatory 14-day quarantine for people arriving from China.¹¹ Most countries, however, waited to take tangible actions until a case was confirmed within their borders.

Table 1. COVID-19 responses in Latin America.¹²

Country	Date first case	Date first measure	Stringency level one week after first case
Chile	2/23/2020	3/14/2020	0
Mexico	2/28/2020	2/28/2020	2.78
Ecuador	3/1/2020	1/26/2020	8.33
Nicaragua	3/19/2020	2/21/2020	8.33
Brazil	2/26/2020	1/29/2020	11.11

¹⁰ Hale et al., “Oxford COVID-19 Government Response Tracker.”

¹¹ *Jamaica Gleaner*, “Jamaica Imposes Travel Ban Over Coronavirus,” January 31, 2020, <http://jamaica-gleaner.com/article/news/20200131/jamaica-imposes-travel-ban-over-coronavirus>; Hale et al., “Oxford COVID-19 Government Response Tracker”; Pan American Health Organization, “Situation Report COVID-19 Jamaica - PAHO/WHO,” September 15, 2020, <https://www.paho.org/en/situation-report-covid-19-jamaica>.

¹² Adapted from Hale et al., “Oxford COVID-19 Government Response Tracker.”

Country	Date first case	Date first measure	Stringency level one week after first case
Dominican Republic	3/1/2020	3/2/2020	11.11
Argentina	3/3/2020	1/23/2020	25
Cuba	3/12/2020	1/28/2020	30.56
Dominica	3/22/2020	3/22/2020	30.56
Colombia	3/6/2020	1/21/2020	34.26
Costa Rica	3/6/2020	2/3/2020	37.04
Guyana	3/12/2020	1/18/2020	41.67
Barbados	3/17/2020	1/22/2020	50
Panama	3/10/2020	1/21/2020	51.85
Suriname	3/14/2020	3/13/2020	52.78
Uruguay	3/13/2020	3/13/2020	54.63
Trinidad and Tobago	3/14/2020	1/30/2020	60.19
Jamaica	3/11/2020	1/31/2020	71.3
Paraguay	3/8/2020	1/23/2020	74.07
Peru	3/6/2020	3/5/2020	74.07
Belize	3/23/2020	2/18/2020	75
Bolivia	3/11/2020	3/10/2020	75
Haiti	3/20/2020	2/4/2020	82.41
Venezuela	3/14/2020	2/28/2020	82.41
El Salvador	3/19/2020	1/23/2020	88.89
Guatemala	3/14/2020	1/21/2020	93.52
Honduras	3/11/2020	3/2/2020	97.22

Data in the table displays the date when the first case was observed in the state, the date the state implemented initial measures to combat the spread of COVID-19, and the measured stringency levels extracted from Oxford University's analysis.

As the virus spread to each state in the region, the variations in response grew more significant. Results from the preliminary analysis in Table 1 highlight that states like Honduras, Guatemala, El Salvador, Venezuela, Haiti, Bolivia, Belize, Peru, and Paraguay took the most restrictive measures in the region, within one week of the virus arriving in their country. Honduras and Peru are two of the most notable from the group. The measures taken by these states included implementation of nationwide lockdowns that required closing all levels of schooling, closing all non-essential workplaces, cancelling all public events, restricting large gatherings, requiring people to stay at home and only allowing circulation during certain hours of the day, promotion of social distancing, shutting down borders and public transportation, as well as enforcing night curfews that allowed

imprisonment of people who defied them.¹³ As time went by, Honduras continued renewing curfew restrictions from 16 March to 13 September, while Peru only used restriction of movement measures from 16 March till the end of June.¹⁴

The analyzed data also shows that Chile, Mexico, Ecuador, Nicaragua, Brazil, and the Dominican Republic initially took the least stringent measures in the region, in response to the pandemic. Their responses were mostly limited to publicly urge caution about the risks of contraction of COVID-19.¹⁵ From these six states, only Mexico, Ecuador and Nicaragua implemented screenings of international travelers during the initial stages of the pandemic.¹⁶

Some of these states' approaches centered on questioning the significance of the pandemic and defying calls for shutdowns. For example, Mexico's president recommended his citizens to continue frequenting local businesses and go on with their normal lives.¹⁷ Brazil's president called the coronavirus disease the 'little flu,' dismissed it as a 'media

¹³ Juan Orlando Hernández, "Mensaje del Presidente de la República, Juan Orlando Hernández en Cadena Nacional de Radio y Televisión Sobre Nuevas Medidas de Prevención ante la Propagación de COVID-19 [Message from Honduras President, Juan Orlando Hernández on National Broadcast over Radio and Television about the New Measures taken to Prevent Propagation of COVID-19]" (Presidential Announcement, Honduras, 16 Mar), <http://www.exteriores.gob.es/Embajadas/TEGUCIGALPA/es/Embajada/Documents/NUEVAS%20MEDIDAS%20COVID19%20HONDURAS.pdf.pdf>; Honduras Government, "Prohibiciones Excepciones COVID19 [Prohibitions and Exceptions COVID-19]," Especificaciones de las Medidas de Cierre de Negocios y Empresas (Honduras: Gobierno de la República Honduras, March 15, 2020), <http://www.exteriores.gob.es/Embajadas/TEGUCIGALPA/es/Embajada/Documents/PROHIBICIONES%20Y%20EXCEPCIONES%20COVID19.pdf>.

¹⁴ Pierina Pighi Bel and Jake Horton, "Coronavirus: What's Happening in Peru?," *BBC News*, July 9, 2020, sec. Latin America & Caribbean, <https://www.bbc.com/news/world-latin-america-53150808>; Douglas Orellana, "Toque de Queda en Honduras se Extiende Hasta el 13 de Septiembre y se Mantiene Circulación con un Dígito [Curfew in Honduras is Extended until 13 September and Single Digit Circulation is Sustained]," *Diez - Diario Deportivo*, September 6, 2020, <https://www.diez.hn/coronavirus/1406597-441/toque-de-queda-en-honduras-se-extiende-hasta-el-13-de-septiembre>.

¹⁵ Hale et al., "Oxford COVID-19 Government Response Tracker"; Gonzalez et al., "The Coronavirus in Latin America."

¹⁶ Gonzalez et al., "The Coronavirus in Latin America."

¹⁷ Associated Press, "Mexico's President Dismissive of Wearing Mask in Pandemic," *Associated Press*, July 22, 2020, sec. Mexico, <https://apnews.com/9eab8d0bb9e4e07904fbcf3777664038>; Sierra Juarez, "Mexican President Downplays Global Coronavirus Pandemic," *Anadolu Agency*, March 24, 2020, <https://www.aa.com.tr/en/americas/mexican-president-downplays-global-coronavirus-pandemic/1776822>.

trick,’ mocked health officials, and turned the virus into a political debate.¹⁸ Nicaragua’s government organized a popular march, Love in the Times of COVID-19—a play on words on Gabriel Garcia Marquez’s famous novel “Love in the Times of Cholera”—featuring dances and coronavirus-themed costumes, going against all WHO’s recommendations.¹⁹

The analyzed data also reveals significant variation in the speed of states’ responses to the arrival of the virus. It shows that three of the wealthiest states in the region (Brazil, Chile, and Mexico) were the first to witness the presence of the virus within their borders, and they were also the slowest to respond. From the three of them, Chile was the slowest to act, which could have influenced the ineffectiveness of the measures the state adopted. When Chile finally took active measures, President Sebastián Piñera declared a three-month state of exemption that allowed the military to implement curfews, while also issuing a number of restrictions such as stay at home orders and border shutdowns, and furthering their healthcare investment by \$1.2 billion.²⁰ Despite those measures, Chile is currently the worst off state in the region, having the most cases of COVID-19, per capita. It is also important to note that the Chilean government initially did not want to implement a nationwide lockdown, however when cases grew exponentially, the state resorted to implement mandatory quarantines for large sections of the country, as well as postponed

¹⁸ Nick Paton Walsh et al., “Bolsonaro Calls Coronavirus a ‘Little Flu.’ Inside Brazil’s Hospitals, Doctors Know the Horrifying Reality,” *CNN*, May 25, 2020, <https://www.cnn.com/2020/05/23/americas/brazil-coronavirus-hospitals-intl/index.html>; Frida Ghitis, “The New Divide in a Polarized Latin America: How to Respond to COVID-19,” *World Politics Review*, April 2020, <https://www.worldpoliticsreview.com/articles/28650/across-latin-america-coronavirus-responses-are-a-new-dividing-line>; Diaz Jr., Pena, and Bojorquez, “Latin America Epidemic Center.”

¹⁹ Agencia EFE, “El Gobierno de Nicaragua Desafía al Coronavirus con una Marcha Multitudinaria [The Government of Nicaragua Challenges Coronavirus with a Massive March].”

²⁰ Biblioteca del Congreso Nacional, Chile, “Declara Estado de Excepción Constitucional de Catástrofe, por Calamidad Pública, en el Territorio de Chile [Declares State of Constitutional Exemption of Catastrophe, due to Public Calamity, in the Territory of Chile],” Pub. L. No. Decree 104, 104 (2020), <https://www.bcn.cl/leychile>; Hale et al., “Oxford COVID-19 Government Response Tracker”; Gonzalez et al., “The Coronavirus in Latin America.”

voting for a constitutional reform until the end of October, as methods to prevent propagation of the virus.²¹

Variations in response were even observed between countries that were considered to have implemented effective measures to control the spread of the virus within their borders. For example, on one hand, Paraguay's initial success was attributed to the restrictive quick action of the government who rapidly implemented a full lockdown as soon as the first COVID case was observed within their borders.²² On the other hand, Uruguay did not implement lockdowns and their success could be attributed to quick action on closing public events, border crossings, shutting down non-essential businesses, enforcing contact tracing of people exposed to the virus, and requesting the population to adhere to social distancing measures.²³

Finally, responses in the region also varied economically. Most states provided short-term stimuluses to sustain their economies, while others rejected this and even promoted the use of austere economic measures imposed by lenders such as the International Monetary Fund.²⁴ Despite the variation in the restrictive measures initially taken by each state, the virus spread like wildfire throughout the region. This is illustrated in Figure 1, which visualizes the number of COVID-19 positive cases by country and Figure 2, which represents the COVID-19 mortality rate by country (per 100 thousand)

²¹ Rossana Castiglioni, "La Política Chilena En Tiempos De Pandemia Entre La (Des)Movilización Social y La Crisis Sanitaria [Chilean Politics in Times of a Pandemic Are Between Social (De)Mobilization and a Sanitary Crisis]," *Nueva Sociedad: Democracia y política en América Latina*, May 2020, <https://www.nuso.org/articulo/la-politica-chilena-en-tiempos-de-pandemia/>.

²² Gonzalez et al., "The Coronavirus in Latin America."

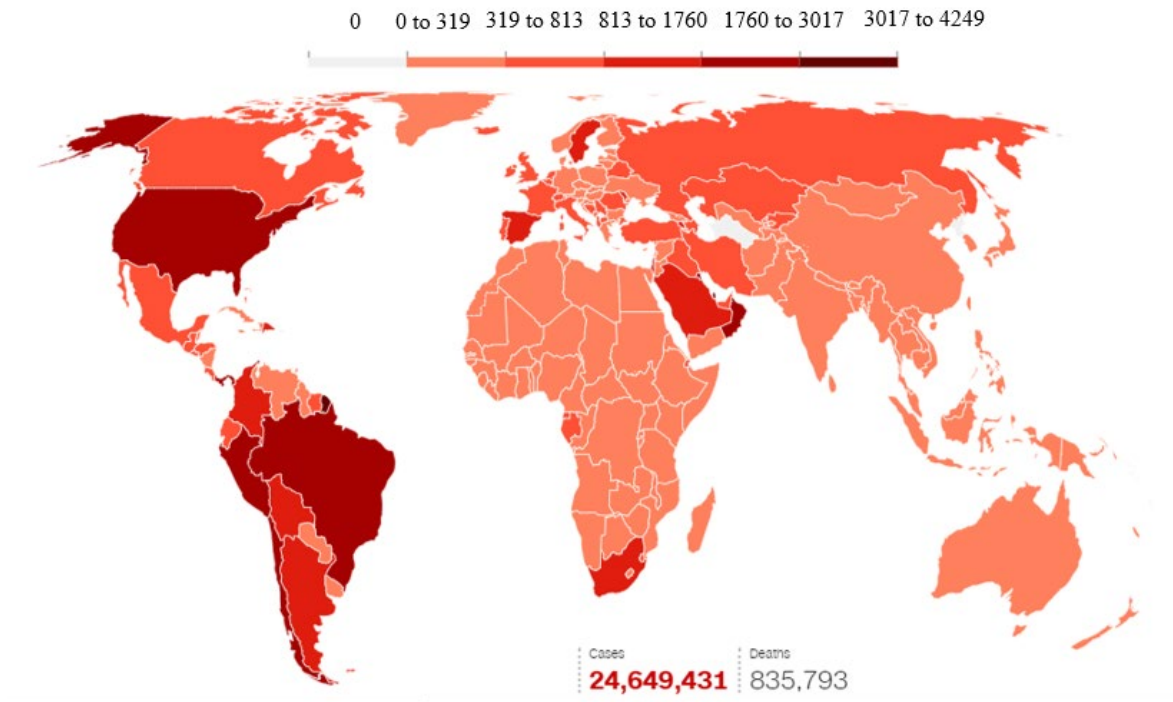
²³ P Fernández and N González, "El Coronavirus se Expande: Hay 29 Infectados y Cierre Total de la Frontera Con Argentina [The Coronavirus expands: There are 29 Cases and Total Closure of Border with Argentina]," *Diario EL PAIS Uruguay*, March 17, 2020, <https://www.elpais.com.uy/informacion/politica/gobierno-decreta-cierre-fronteras-coronavirus.html>; N González, "Gobierno Tiene Sobre la Mesa Declarar la 'Cuarentena General' Por El Coronavirus [Government has on the Table a Declaration of 'General Quarantine' because of the Coronavirus]," *Diario EL PAIS Uruguay*, March 18, 2020, <https://www.elpais.com.uy/informacion/salud/gobierno-mesa-declarar-cuarentena-general-coronavirus.html>; El Pais, "Una Clave y 900 Camas Ante el Avance del Coronavirus [A Key and 900 Beds in Front of the Advancement of the Coronavirus]," *Diario EL PAIS Uruguay*, March 14, 2020, <https://www.elpais.com.uy/informacion/salud/clave-camas-avance-coronavirus.html>.

²⁴ Gonzalez et al., "The Coronavirus in Latin America."

with darker colors representing higher levels of each. As the two figures illustrate, rapid spread of the disease in the region, and the high mortality rate, converted Latin America in the epicenter of the pandemic by June of 2020.²⁵

All the aforementioned facts bring us to question, what went wrong in Latin America? Was the crisis exacerbated by lack of preparedness, or was it the political environment and influence of state leaders that increased risk in the population? Was it their already fragile economies that prevented enforcement of prolonged lockdowns or was it a lack of state capacity that prevented the implementation of effective control measures?

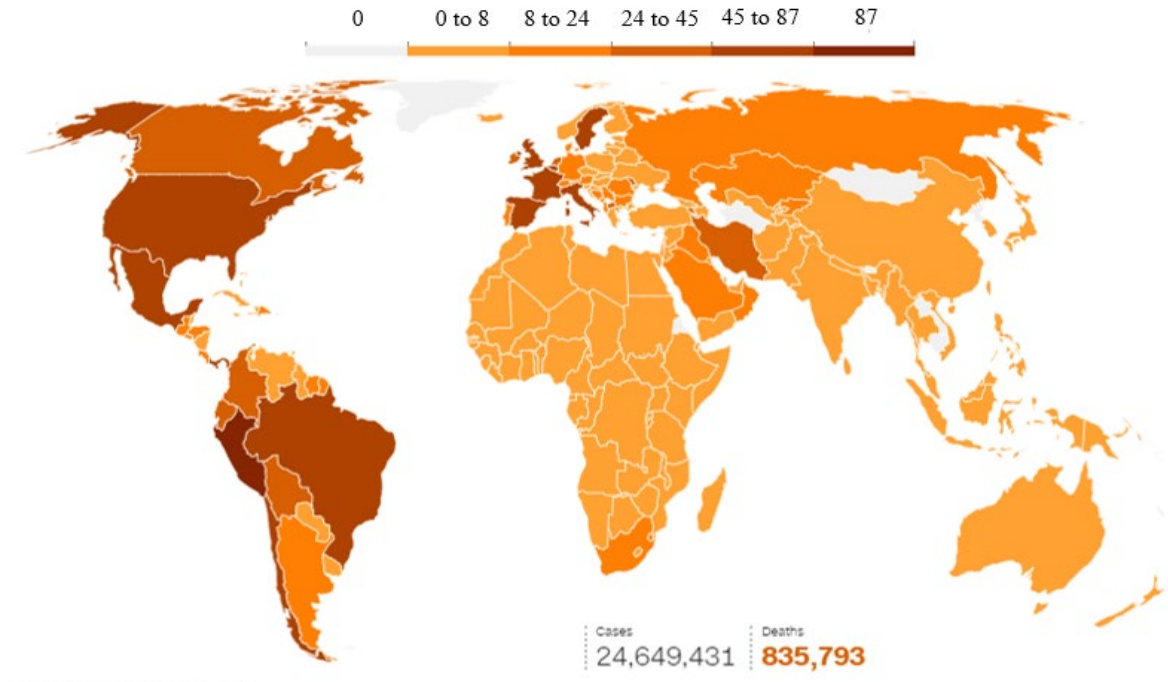
²⁵ Diaz Jr., Pena, and Bojorquez, “Latin America Epidemic Center”; Philip Reeves and Carrie Kahn, “Latin America Becomes a New Epicenter of the Coronavirus Pandemic,” *NPR*, June 3, 2020, <https://www.npr.org/2020/06/03/869053446/latin-america-becomes-a-new-epicenter-of-the-coronavirus-pandemic>; Henrik Pettersson, Byron Manley, and Sergio Hern, “Tracking Coronavirus’ Global Spread,” *CNN*, accessed August 29, 2020, <https://www.cnn.com/interactive/2020/health/coronavirus-maps-and-cases>.



Map showing total cases of COVID-19 worldwide. Data is normalized to show cases per 100 thousand habitants. Data from John Hopkins University Center for Systems Science and Engineering. Last updated August 28, 2020, at 11:45 p.m., ET, as found on CNN.

Figure 1. Map of total COVID-19 cases worldwide.²⁶

²⁶ Source: Petterson, Manley, and Hern, "Tracking Coronavirus' Global Spread."



Map illustrating the number of COVID-19 deaths per 100 thousand people on each country. Data from John Hopkins University Center for Systems Science and Engineering. Data shown as of August 28, 2020, at 11:45 p.m, ET, as found on CNN.

Figure 2. Map of total COVID-19 induced deaths worldwide.²⁷

To answer these questions, this research will examine variation in the states' responses during the early phases of the pandemic and consider the underlying drivers of the variation in the effectiveness of states' efforts at limiting the spread and impact of the coronavirus pandemic in their societies.

B. SIGNIFICANCE OF THE RESEARCH QUESTION

The COVID-19 pandemic has fundamentally transformed the Latin American social, economic, and political landscape. Much of the region's recent progress reducing poverty and inequality are now being entirely reversed. Understanding why the pandemic has hit the region so hard is essential because it sheds light on key drivers of vulnerability in Latin American societies. The fact that Chile, often touted as one of Latin America's

²⁷ Source Pettersson, Manley, and Hern.

most advanced and economically robust societies, has been one of the most ineffective countries at managing the pandemic is telling of the complexity of this puzzle. It highlights the significance of evaluating how social, political, and economic factors interact to produce the variation in responses and outcomes.

Furthermore, public health emergencies such as pandemics tend to repeat frequently throughout history, and according to research, disease outbreaks have increased in frequency.²⁸ While it is widely expected that the world will continue to experience pandemics in the future, it is extremely difficult to predict the intensity or origin of the next pandemic. The lessons learned from analyzing the effectiveness of current governmental policies, their responses, and the state capacity to implement those actions in order to control the spread of COVID-19 is vital to the implementation and formulation of new policies and procedures that more effectively control the spread of future outbreaks, or new diseases. Lessons learned from this study could also help strengthen each states' pandemic responses and facilitate development of a regional bio-defense plan.

Finally, the economic and political actions each state has taken to combat the spread of COVID-19 will have an impact on economic, employment, and migratory trends within the region. Historical evidence has shown that moments of economic decline in Latin America have generated conditions for significant political instability and driven migration flows to Europe and the United States. The United Nation's forecasted regional unemployment rate of 13.5%, and extreme poverty rate increase of 15.5% will force an additional 28 million people to live in extreme poverty.²⁹ This shows the current pandemic is poised to affect these countries' economic and social conditions for years to come and may trigger significant social and political transformations. Understanding the conditions at the root of these different responses is of interest to the U.S. government as it seeks to

²⁸ Lydia Kapiriri and Alison Ross, "The Politics of Disease Epidemics: A Comparative Analysis of the SARS, Zika, and Ebola Outbreaks," *Global Social Welfare* 7, no. 1 (March 2020): 7, <https://doi.org/10.1007/s40609-018-0123-y>.

²⁹ United Nations Sustainable Development Group, "Policy Brief: The Impact of COVID-19 on Latin America and the Caribbean" (United Nations Sustainable Development Group, July 2020), 12, <https://unsdg.un.org/resources/policy-brief-impact-covid-19-latin-america-and-caribbean>; United Nations Sustainable Development Group, 12.

promote stability across the region, sustain its influence, and prevent increased dependence of Latin American on foreign aid.

C. LITERATURE REVIEW

To understand the various actions states in Latin America took in response to the COVID-19 pandemic, we have to begin by understanding the alternatives the international health organizations, governmental plans, media advocacy groups, and reports and research papers from medical communities recommended to governments, as well as the region's level of preparedness against pandemics.

1. Preparedness Plans and Recommendations from the World Health Organization

An examination of the literature reveals that when dealing with a pandemic that has no known cure or treatment, the first recommended actions that governments are given by medical professionals are to isolate patients, quarantine close contacts, and take population-based measures to decrease the rapid propagation of the disease.³⁰ These actions are taken in order to buy time to develop a treatment, prevent overwhelming the state's capacity to provide medical care, and reduce the number of incidents and thus mortality.³¹ As a result, it was expected that the WHO's initial response released on 3 February 2020 recommended implementing measures such as testing, contact tracing and screenings for travelers,

³⁰ David Bell, "Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures," *Emerging Infectious Diseases* 12, no. 1 (January 2006): 88–94, <https://doi.org/10.3201/eid1201.051371>; Timothy P. Alben, "Compliance with Community Mitigation and Interventions in Pandemic Influenza: A Community Policing Strategy" (Master's Thesis, Naval Postgraduate School, 2007), 1–32, <https://calhoun.nps.edu/handle/10945/3344>; Eugenia Tognotti, "Lessons from the History of Quarantine, from Plague to Influenza A," *Emerging Infectious Diseases* 19, no. 2 (February 2013): 254–59, <https://doi.org/10.3201/eid1902.120312>.

³¹ Bell, "Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures," 88–94.

amongst others.³² The WHO's intervention recommendations are expected to change over time as information on the virus increases and the pandemic evolves.³³

When worldwide spread has taken place, the WHO considers a shift in its recommendations aimed at reducing the impact of the disease and delaying its propagation to allow time for a vaccine to be developed. The WHO typically recommends implementing any combination of the following actions to delay the spread of a virus:³⁴

- Close schools
- Limit size of gatherings and congregations
- Encourage voluntary isolation of sick or infected persons
- Restrict travel within and out of the country
- Close non-essential businesses, recommending ability to work from home
- Limit number of religious services and funerals
- Control all border crossings
- Enforce hygiene etiquette such as hand washing, disinfection of surfaces, and require widespread use of face masks
- Conduct medical screenings of travelers entering and exiting the country
- Social distancing

³² World Health Organization, "Coronavirus Disease 2019 (COVID-19)," Situation Report (World Health Organization, April 2020), 10–11, https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf?sfvrsn=b8304bf0_4; World Health Organization, *WHO COVID-19 Preparedness and Response Progress Report - 1 February to 30 June 2020*, 5, accessed September 29, 2020, <https://www.who.int/publications/m/item/who-covid-19-preparedness-and-response-progress-report--1-february-to-30-june-2020>.

³³ Bell, "Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures."

³⁴ Bell.

The WHO has recognized that there is not enough evidence to scientifically demonstrate the adoption of these measures work, but they have been recommended based on historical observations that have shown that adopting them precludes susceptible individuals from infection.³⁵ Moreover, adopting these measures increases the opportunity to find adequate treatments, as well as develop and administer vaccines to individuals that have not been infected during initial waves.³⁶

The WHO's recommendations, in combination with data on the varying impact of the COVID-19 pandemic on Latin American societies, can be used as a baseline from which to consider differences in states' responses. The remainder of this literature review will consider different explanations for this variation—in response and effectiveness—amongst Latin American societies.

Considering that literature in response of COVID-19 is scarce, this thesis draws from literature on flu-like pandemics due to similarities in propagation and actions required/recommended by the WHO to mitigate the propagation. I also examine literature on state preparedness, timeliness of responses, populism, inequality, and state capacity with the goal of identifying potential explanations that could explain variation and effectiveness of government responses.

2. Level of Preparedness

National pandemic preparedness plans provide a framework that identifies country specific priorities and actions in response to rapid propagation of diseases. Literature shows that these plans establish policies, procedures, roles, and responsibilities that governmental institutions should follow to rapidly monitor, assess, prevent, and contain health

³⁵ Bell; Alben, "Compliance with Community Mitigation and Interventions in Pandemic Influenza," 23.

³⁶ Bell, "Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures."

emergencies.³⁷ Moreover, the plans identify and allocate resources, determine health system and state capacity limitations, draw from lessons learned, and establish communication plans to quickly and effectively take action when incidents arise. In the international arena, the WHO provides overarching public health goals and a framework for national preparedness plans that states can implement when building these plans.^{38 39}

An analysis of the national plans for pandemic influenza preparedness in Latin America conducted by Mensua et al. in 2009, demonstrated that states in Latin America had different degrees of preparedness with some of them requiring external funding to be effective.⁴⁰ Moreover, their report showed that the wealthiest states had the highest level of plan completeness, as observed in Figure 3.⁴¹

The results of the analysis revealed that the surveyed states' surveillance and communication plans are well addressed. However, gaps remained in the "organization of health care services' response; planning and maintenance of essential services; and the

³⁷ International Federation of Red Cross and Red Crescent Societies, *Preparedness Planning: Disaster Preparedness Training Programme*, 2000, 5, <https://www.ifrc.org/Global/Preplan.pdf>; "Plan and Prepare for Disasters," Department of Homeland Security, June 19, 2012, <https://www.dhs.gov/plan-and-prepare-disasters>; World Health Organization, "WHO Global Influenza Preparedness Plan. The Role of WHO and Recommendations for National Measures Before and During Pandemics" (World Health Organization, 2005), 4, https://www.who.int/csr/resources/publications/influenza/WHO_CDS_CSR_GIP_2005_5.pdf.

³⁸ Bell, "Nonpharmaceutical Interventions for Pandemic Influenza, National and Community Measures."

³⁹ The WHO divides these goals in three periods: interpandemic, pandemic alert, and pandemic period. Moreover, the WHO highlights that effective preparedness plans should strengthen national and subnational level preparedness, as well as take precautionary measures that enable detection and reporting of new human infections during the interpandemic period. During this time, states should identify and create partnerships among different departments in the public and private sector (e.g., agriculture, transport, trade, labor, defense, education, the judiciary). Furthermore, effective preparedness plans should establish procedures that enable early detection, rapid characterization, and maximize efforts for rapid containment or delay spread of a new virus during the pandemic alert period. Lastly, effective plans should implement measures that minimize the impact of the pandemic on the population during the pandemic period.

⁴⁰ Ana Mensua, Sandra Mounier-Jack, and Richard Coker, "Pandemic Influenza Preparedness in Latin America: Analysis of National Strategic Plans," *Health Policy and Planning* 24, no. 4 (July 2009): 253–60, <https://doi.org/10.1093/heapol/czp019>.

⁴¹ Their analysis only surveyed the plans from Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Paraguay, Peru, Uruguay, and Venezuela as those were the only countries that had accessible preparedness plans.

provision of containment measures such as the stockpiling of necessary medical supplies.”⁴² Moreover, the study revealed that while Bolivia, Colombia, Costa Rica, El Salvador, Guatemala, Honduras and Peru had created estimates of how much their plans would cost to implement, only Peru and Honduras had identified funding sources. Furthermore, Bolivia and Guatemala acknowledged that their plan could not be fully implemented without the assistance of external financial support.

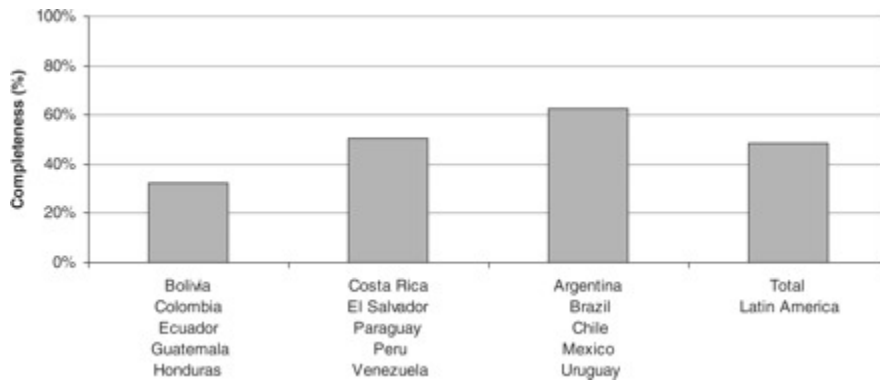


Figure 3. Aggregate completeness scores of preparedness plans for Latin America.⁴³

The report also showed that the surveillance systems created to monitor propagation of diseases were relatively young and had different levels of development.⁴⁴ Paraguay and Guatemala, for instance, acknowledged that insufficient resources and human capital prevents the expansion of surveillance capabilities. Further, the capacity of many state’s health systems to respond to emergencies is weakened by their lack of resources or experienced personnel. Moreover, access to vaccines is a concern for all the states since they depend on industrialized countries to develop them, and only Brazil has the capacity to produce vaccines, once developed.

⁴² Mensua, Mounier-Jack, and Coker, “Pandemic Influenza Preparedness in Latin America.”

⁴³ Source Mensua, Mounier-Jack, and Coker.

⁴⁴ Mensua, Mounier-Jack, and Coker.

A COVID-19 preparedness and response report created by the WHO highlights that most countries in the world were not prepared to respond to this pandemic.⁴⁵ In the initial stages of the pandemic, around 1 March 2020, only 46 percent of countries and territories had a preparedness plan, and 45 percent of countries and territories in the world had functioning mechanisms such as procedures, infrastructure, and standards established to respond to the pandemic.

The results from these two reports offer an initial set of potential explanations to the variation in response and response-effectiveness amongst Latin American countries. Specifically, they suggest that both outcomes were significantly conditioned by the level of state preparedness prior to the arrival of COVID-19 to the region. States with more developed preparedness plans and greater capacity for implementation can be expected to have a faster and more effective response to the pandemic than those states with either more limited or inexistent plans. Such states, with established plans and resources for their implementation, would be better positioned to put a plan of pandemic control into action in a coherent way. The reports also showed that the surveillance systems created to monitor propagation of diseases was relatively young and had different levels of development. Paraguay and Guatemala acknowledged that insufficient resources and human capital prevents the expansion of surveillance capabilities. It was noted that while thirteen of the fifteen countries have laboratories capable of conducting testing, two of them planned on securing testing through the Regional Reference Laboratory in Atlanta, U.S., limiting their ability to respond.

3. Timeliness of Response

Literature analyzing past pandemic responses has identified that early intervention significantly decreases the risk of mortality within the population.⁴⁶ Studies of the effects

⁴⁵ World Health Organization, *WHO COVID-19 Preparedness and Response Progress Report - 1 February to 30 June 2020*, 4.

⁴⁶ Richard J. Hatchett, Carter E. Mecher, and Marc Lipsitch, "Public Health Interventions and Epidemic Intensity During the 1918 Influenza Pandemic," *Proceedings of the National Academy of Sciences of the United States of America* 104, no. 18 (May 1, 2007): 2, <https://doi.org/10.1073/pnas.0610941104>.

of the 1918 flu pandemic in the United States demonstrated that the city of Saint Louis was able to decrease the death rate to one fifth of the death rate of the city of Philadelphia by simply limiting public gatherings, closing schools, and limiting social contact as soon as the first case of influenza was observed.⁴⁷ The study noted that just a fourteen-day delay in acting caused the city of Philadelphia's numbers to be high. Moreover, the study concluded that early interventions decreased peak death rates by approximately 50 percent, however it was not able to distinguish whether a single measure or a combination of measures were more effective than others. The findings of this study would suggest that the timing of the response to the COVID-19 pandemic may have significantly influenced its societal impact. Countries that responded to the pandemic when the first cases were identified are more likely to have curtailed the impact of the pandemic when compared to those that had a delayed response. Why did some countries respond earlier and more assertively than others to the threat of COVID-19?

4. The Role of Leadership and Populism on Pandemic Response

Literature has shown that trust in leadership is extremely important when dealing with natural disasters, pandemics, or even acts of terrorism.⁴⁸ Moreover, the population is more likely to cooperate, act immediately on a situation, and bounce back from a crisis if their leaders are trustworthy, the information shared by the leaders is reliable, and when the population can demystify less-than-trusted information effectively.

Arguments on effective leadership responses against COVID-19 around the world state that leaders that were decisive, acted quickly, took evidence-based decisions, and coordinated actions effectively were successful at controlling the spread of the pandemic.⁴⁹

⁴⁷ Hatchett, Mecher, and Lipsitch, "Public Health Interventions and Epidemic Intensity During the 1918 Influenza Pandemic."

⁴⁸ P. H. Longstaff and Sung-Un Yang, "Communication Management and Trust: Their Role in Building Resilience to 'Surprises' Such As Natural Disasters, Pandemic Flu, and Terrorism," *Ecology and Society* 13, no. 1 (2008): 14, <https://www.jstor.org/stable/26267909>.

⁴⁹ Ahmed Mohammed Obaid Al Saidi et al., "Decisive Leadership Is a Necessity in the COVID-19 Response," *The Lancet* 396, no. 10247 (August 1, 2020): 295–98, [https://doi.org/10.1016/S0140-6736\(20\)31493-8](https://doi.org/10.1016/S0140-6736(20)31493-8).

The authors have also noted that political partisanship has negatively affected “health behaviours and policy preferences” impacting response success and failure rates.⁵⁰

Recent scholarship on the Latin American response to the COVID-19 pandemic argues that government responses in the region have been tied to the political leadership styles of state leaders, regardless of ideology.⁵¹ In particular, the literature suggests a divide between populist and pragmatist leaders, with populist politicians tending to “view challenges as political problems to be gamed, manipulated and outwitted,” while pragmatic leaders consider objective results as a measure of their success or failure.⁵²

Latin America has a long history of populism, with leaders within this approach presenting themselves as invincible ‘macho’ saviors to the people. Traditionally, populist leaders in Latin America have positioned themselves against ‘corrupt’ political elites and ‘oligarchy’ (to be found in all institutions), as charismatic outsiders that represent the voice of the *pueblo*.⁵³ For Latin America, populism is not categorized as an ideology, but rather a “way of being and acting in politics,” with the goal of challenging the evil ‘other’ that oppresses the *pueblo*. Moreover, literature often describes populist leaders as ones that challenge expert scientific knowledge that is based on evidence by pitting it against ‘common sense’ of righteous people.⁵⁴

Thus, the literature suggests that a central driver of variation in response and response effectiveness to COVID-19 stems from the variation in leadership styles, with more populist leaders demonstrating greater willingness to ignore the recommendations of the medical community to present themselves as strong leaders, unwilling to give in to the

⁵⁰ Saidi et al., 297.

⁵¹ Ghitis, “The New Divide in a Polarized Latin America: How to Respond to COVID-19.”

⁵² Ghitis.

⁵³ Pierre Ostiguy and María Esperanza Casullo, “Left versus Right Populism: Antagonism and the Social Other,” in *67th PSA Annual International Conference* (67th PSA Annual International Conference, Glasgow, UK, 2017), 2–9, https://www.psa.ac.uk/sites/default/files/conference/papers/2017/Ostiguy%20and%20Casullo_0.pdf.

⁵⁴ Alexi Gugushvili et al., “Votes, Populism, and Pandemics,” *International Journal of Public Health* 65, no. 6 (July 1, 2020): 721–22, <https://doi.org/10.1007/s00038-020-01450-y>.

‘little flu.’ As leadership becomes more pragmatic, it can be expected to incorporate more of the recommendations of the international organizations and medical community and therefore to increase the likelihood of response success.

5. Inequality and Welfare States

Studies of pandemic outbreaks have noted that socially marginalized, and poor populations are generally most affected during outbreaks.⁵⁵ The studies further note that poorer states, which typically have the most “precarious and inconsistent access to health care services, lacking the resources and infrastructure to prevent, diagnose, and treat the virus,” were the most affected.⁵⁶ This suggests the need to look closely at the healthcare systems and larger welfare states across the Latin American region to understand variation in response effectiveness.

Health system reforms implemented across Latin America since the 1980s have increased access to medical care through the implementation of government financing that supplements insurance coverage for uninsured citizens, tax financed universal health systems, and the expansion of medical infrastructure to rural areas.⁵⁷ Yet, despite these advances, the social protection structures in Latin America are not equal in all states in the region. In a study of Latin American welfare states, Jennifer Pribble shows that the most industrialized states in the region are the ones that have the stronger social welfare systems that better incorporate marginalized groups, and rural areas.⁵⁸ She differentiates between states with strong overall social protections—such as Argentina, Chile, Costa Rica, and Uruguay—states with strong poverty reduction protections but weak healthcare protections (Brazil, Mexico, and Panama), states with weak poverty reduction protections but

⁵⁵ Lydia Kapiriri and Alison Ross, “The Politics of Disease Epidemics: A Comparative Analysis of the SARS, Zika, and Ebola Outbreaks,” *Global Social Welfare* 7, no. 1 (March 1, 2020): 33–45, <https://doi.org/10.1007/s40609-018-0123-y>.

⁵⁶ Kapiriri and Ross.

⁵⁷ Rifat Atun et al., “Health-System Reform and Universal Health Coverage in Latin America,” *The Lancet* 385, no. 9974 (March 28, 2015): 1230–47, [https://doi.org/10.1016/S0140-6736\(14\)61646-9](https://doi.org/10.1016/S0140-6736(14)61646-9).

⁵⁸ Jennifer Pribble, “Worlds Apart: Social Policy Regimes in Latin America,” *Studies in Comparative International Development* 46, no. 2 (June 1, 2011): 192–96, <https://doi.org/10.1007/s12116-010-9076-6>.

significant healthcare ones (Colombia, Ecuador, Paraguay, and Peru), and those with the least amount of protections.⁵⁹ Research has shown that in the latter countries, less than 40% of the population has access to health care.⁶⁰ This and other research suggests that countries with more robust welfare states may have been more effective at responding to the pandemic through the availability of economic and health infrastructure that enables them to access the majority of the population. The quantity, quality, and type of social protections each state provides to their populations, as well as the capacity to provide them for extended periods of time, could shape responses and effectiveness of those actions. As such, we can arguably expect states with a stronger welfare state to be better equipped to confront the coronavirus pandemic.

Yet, literature also shows that despite the creation of additional social welfare programs, severe inequalities continue to exist in access to, and quality of services within these societies.⁶¹ Social and economic inequality are considered central challenges to Latin American states' development. Patterns of inequality reflect states' limited reach and exclusionary practices, which have historically privileged some groups in society often at the expense of others. Patterns of inequality in the region have been further exacerbated by a consistently large informal economy that leaves almost half of the region's wage workers without social or economic protections from the state.⁶² Moreover, literature has shown

⁵⁹ The social protections created in Latin America benefited from the economic and political situation of the time. The commodity boom of the 2000s eased fiscal and political pressures which allowed left-wing governments to implement the redistributive social and protective programs previously discussed, in addition to some kind of cash assistance that expanded to people in the informal sector. While the social insurance programs provided by states shifts the burden from individuals to societal-levels, they are limited in coverage and financing, and are heavily dependent on the state's economic prosperity.

⁶⁰ Evelyne Huber, Thomas Mustillo, and John D. Stephens, "Politics and Social Spending in Latin America," *The Journal of Politics* 70, no. 2 (2008): 420, <https://doi.org/10.1017/s0022381608080407>.

⁶¹ Evelyne Huber and Zoila Ponce de León, "The Changing Shapes of Latin American Welfare States," Oxford Research Encyclopedia of Politics, June 25, 2019, <https://doi.org/10.1093/acrefore/9780190228637.013.1656>.

⁶² Gabriela Ramos and OECD, "Enhancing Social Inclusion in Latin America: Key Issues and the Role of Social Protection Systems" (OECD, 2016), 23–24, <http://www.oecd.org/latin-america/regional-programme/Enhancing-Social-Inclusion-LAC.pdf>; Melina Altamirano, "Economic Vulnerability and Partisanship in Latin America," *Latin American Politics and Society* 61, no. 03 (August 2019): 81–82, <https://doi.org/10.1017/lap.2019.7>.

that rural vs urban inequalities in access to resources such as running water, sanitation, and reliable medical care, increase risk of infection in rural populations.⁶³ The rural inequalities in the region are significant. For example, in rural Lima, Peru, 1.5 million people lack access to safe water.⁶⁴ In Colombia, ex-health minister Alejandro Gaviria compared the region's urban vs rural health system differences by exclaiming that it is like "having Europe and Africa in the same continent."⁶⁵ The suboptimal health system in rural areas is tied to limited availability of well-trained primary care physicians and specialists who prefer to work in cities because of better pay and improved living conditions.⁶⁶ In sum, while welfare states may exist in Latin America; they vary significantly in their strength and reach not only across countries, but also within these countries. Such variation may be central to understanding differences in response effectiveness across Latin American states. Thus, while states with stronger welfare states may be expected to produce a more effective response to the COVID-19 pandemic than those with weaker welfare states, significant levels of inequality may curtail the efforts of even the strongest welfare states, as some sectors of their populations remain excluded from the welfare structure and become vulnerable to the pandemic.

⁶³ "How Is Latin America in Terms of Sanitation?," accessed October 1, 2020, <https://www.iadb.org/en/improvinglives/how-latin-america-terms-sanitation>; Candelaria Garay, *Social Policy Expansion in Latin America*, vol. 60 (New York: Cambridge University Press, 2016), 299; Ramos and OECD, "Enhancing Social Inclusion in Latin America: Key Issues and the Role of Social Protection Systems," 24–25.

⁶⁴ Siobhan Wagner and Sebastian Casteneda Vita, "Lima's Poorest Residents Are Buying Drinking Water From a Truck," *Bloomberg*, February 2021, <https://www.bloomberg.com/news/features/2021-02-05/lima-s-poorest-residents-are-buying-drinking-water-from-a-truck>.

⁶⁵ Tim Lister, "Latin America Sees Half of All New COVID-19 Infections as Health Systems Flounder," *CNN*, July 4, 2020, <https://www.cnn.com/2020/07/04/health/latin-america-coronavirus-health-systems-intl/index.html>.

⁶⁶ Tracy Francis, "Perspectives on Healthcare in Latin America" (McKinsey & Company, September 2011), 33–35, https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/Public%20Sector/PDFS/Perspectives_on_Healthcare_in_Latin_America.ashx.

D. POTENTIAL EXPLANATIONS AND HYPOTHESES

The literature review offers several hypotheses about the factors that explain variation in response patterns and the effectiveness of the pandemic responses in Latin America. The first hypothesis is focused on levels of state preparedness and effectiveness of current plans. Researchers that have studied the propagation of flu-like viral infections as well as national preparedness plans to prevent rapid propagation of diseases have demonstrated that most national preparedness plans focus on reducing “impact associated with a constant attack rate, rather than on reducing transmission.”⁶⁷ As a result, it is hypothesized that the degree of preparedness plans and the capacity/ability to implement them quickly dictate how many cases are observed in the state. Which will imply that improper preparedness plans and weak state capacity caused the rapid spread of the pandemic in Latin America.

A second hypothesis focuses on state leadership. I estimate that Latin American states with populist leaders delayed taking actions in response to the COVID-19 pandemic, while states governed by pragmatic, assertive, leaders responded early thus increasing their opportunities of success. On one hand, the populist leader’s delayed action could be attributed to their personality traits and unwillingness to listen to recommendations from medical professionals. Moreover, the attitudes and opinions of populist leaders polarized, and politicized pandemic responses causing populations to underestimate the virus, distrust government officials, and discourage voluntary adoption of social distancing measures. The combination of all these actions increased propagation of the virus causing those states to become the epicenter of COVID-19. On the other hand, the pragmatic leader’s rapid action could be attributed to their desire to use objective measures as a measure of their success at controlling the spread of the virus. Their leadership styles could have increased trust from the population thus driving cooperative responses. As a result, those leaders would be more effective at controlling the spread of the virus.

⁶⁷ Joseph T. Wu et al., “Reducing the Impact of the Next Influenza Pandemic Using Household-Based Public Health Interventions,” *PLOS Medicine* 3, no. 9 (August 8, 2006): e361, <https://doi.org/10.1371/journal.pmed.0030361>.

A third hypothesis is that response effectiveness was driven by the strength of the state's welfare system and how equal access to that welfare system is. For example, states with strong healthcare and economic support (welfare systems) that made efforts to provide equal access to their population to those benefits would have a higher success at controlling the spread of the pandemic. On the other hand, states with strong welfare systems and significant levels of unequal access to those welfare systems are more vulnerable to the effects of pandemics. Moreover, states with weak welfare systems are not capable of controlling the spread of COVID-19, regardless of how equal access to those welfare systems is. Their ineffectiveness could be attributed to the low economic capacity to tend to the financial and health needs of the population in a region where high informal employment is the norm caused the population to ignore social distancing and stay home requirements as people took to the streets to make a living.

E. RESEARCH DESIGN AND THESIS OVERVIEW

Given the diverse reasons that could have caused the rapid spread of coronavirus in Latin America, this thesis will concentrate on comparing and evaluating preparedness plans and the effectiveness of the actions taken by various states in the suppression of COVID-19, putting emphasis in establishing the role of leadership, welfare state capacity, and inequality on shaping outcomes.

To 'isolate' the impact of inequality on response effectiveness, this study will carry out case studies of Chile and Uruguay. These two countries are similar in terms of their GDP per capita, health and social welfare state capacity. They also have non-populist leaders in power. However, they have experienced significant variation in terms of the effectiveness of their pandemic response. Chile represents the case of a problematic, poor, response, while Uruguay represents a case of success. This study will consider the extent to which patterns of inequalities within the countries' welfare states impacted their response effectiveness and, in particular, the active number of COVID-19 cases, as well as the number of fatalities.

Towards this end, the research will evaluate the timeliness of each response, the actions taken and their level of stringency, the type of social protections employed by each

state and the capacity to employ them, the type and quantity of external support received by the state (if any) to mitigate propagation of the virus, the state of the healthcare system and its capacity to care for patients infected by COVID in both urban and rural areas, and the effects of population density in the spread of the virus.

Data analyses will draw from newspaper sources, reports on states' approaches and the effectiveness of the measures, reports and evaluations on their welfare states and capacity to employ them, as well as data collected by John Hopkins University in their *Coronavirus Resource Center* and Oxford University in their *Coronavirus Government Response Tracker* as well as other academic work. Due to the documented differences in access to healthcare from people that live in rural vs urban areas, I will also analyze, compare, and evaluate differences in medical capacity and welfare spending in urban and rural areas within each country. This comparative approach will allow the identification of measures that effectively controlled the spread of the virus as well as enable the evaluation of the effectiveness of their pandemic preparedness plans, and establishes which social policies are more capable of controlling the pandemic.

To accomplish the comparative analysis previously discussed, the proceeding chapters will concentrate on investigating each country individually. Chapter II will evaluate the plans, adopted government measures, and the effectiveness of their employment in Chile. Chapter III will conduct a similar analysis focusing on the measures implemented by Uruguay. Chapter IV will then conclude the thesis by comparing and analyzing the observations made on the previous chapters in order to determine the factors that contributed to the large number of COVID-19 cases observed in Chile, and what appears to be a good containment of the spread of the virus in Uruguay.

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II. CHILE

Economic reforms aimed to open markets and the commodities boom of the 2000s made Chile one of the fastest growing economies in Latin America, which allowed their government to incorporate health and social reforms that decreased poverty, and increased medical access.⁶⁸ Chile's economic prosperity, modern medical facilities, as well as social and healthcare reforms adopted in the last four decades give the impression that the state was well prepared to face the COVID-19 pandemic. However, despite these advantages, Figure 4 shows Chile rapidly became the state with most COVID-19 cases per capita in the entire region by mid-May 2020, peaking at 352 new daily cases per million people around 12 June 2020.

This chapter will show that the rapid spread of COVID-19 in Chile between March and August 2020 is attributed to the implementation of policies similar to South Korea's test, trace and isolate strategy which disregarded the state's limited capacity to conduct adequate contact tracing and isolation of known active cases.⁶⁹ The implemented policies also underestimated the state's healthcare and socioeconomic inequalities and as a result, the virus spread like wildfire when it reached the poorest, overcrowded communes, collapsing Chile's health system.

To demonstrate the effects of the pandemic in Chile, this chapter first reviews and analyzes Chile's welfare system, degree of preparedness, and political environment prior to March 2020 to determine Chile's readiness to face the pandemic. Second, it analyzes Chile's pandemic response demonstrating its effectiveness and identifying factors that contributed to the rapid propagation of COVID-19.

⁶⁸ "The World Bank in Chile," April 16, 2020, <https://www.worldbank.org/en/country/chile/overview>.

⁶⁹ Amy Dighe et al., "Response to COVID-19 in South Korea and Implications for Lifting Stringent Interventions," *BMC Medicine* 18, no. 1 (October 9, 2020): 321, <https://doi.org/10.1186/s12916-020-01791-8>.

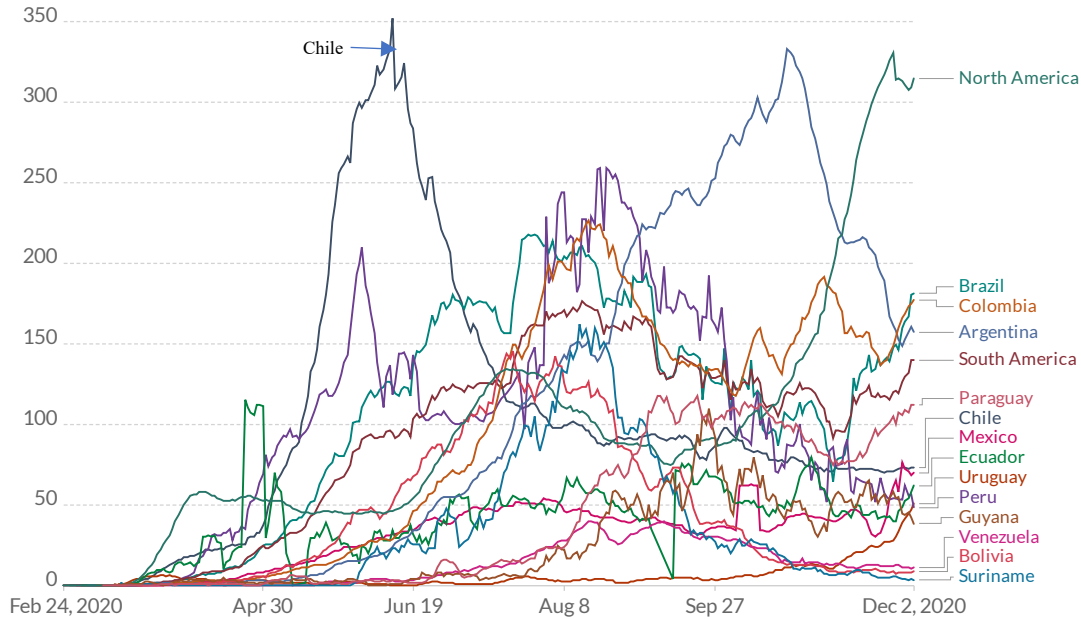


Image shows 7-day rolling average of new confirmed COVID-19 cases per country in South America and Mexico between the months of February and December 2020. Data in the figure originates from John Hopkins University Center for Systems Science and Engineering. As found on Our World in Data.

Figure 4. Daily new confirmed COVID-19 per million people.⁷⁰

A. CHILE BEFORE THE PANDEMIC

The economic growth experienced in Chile since its return to democracy in the 1990s enabled it to become a high-income state with the second highest GDP per capita in South America.⁷¹ Chile’s economic success facilitated the creation of social protections and a modern healthcare system through which poverty was reduced to 8.6%, health and social protections were extended to the most vulnerable, mortality rates were decreased to a low 6 casualties per thousand births, life expectancy increased to roughly 80 years of age, and welfare benefits such as unemployment protection and retirement pensions were

⁷⁰ Source: “Coronavirus Pandemic Data Explorer,” Our World in Data, July 10, 2021, <https://ourworldindata.org/coronavirus-data-explorer>.

⁷¹ “GDP Per Capita (Current US\$) - Chile, Uruguay, Brazil, Colombia, Ecuador, Paraguay, Bolivia, Suriname, Guyana, St. Martin (French Part), Venezuela, Rb,” World Bank Data, World Bank, November 27, 2020, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CL-UY-BR-CO-EC-PY-BO-SR-GY-MF-VE>.

extended to over 95 percent of the population.⁷² These accomplishments show Chile has been successful at creating effective social protections for its population. Especially considering poverty, mortality, and life expectancy rates in a more economically developed state like the United States are 10.5 percent, 5.79 casualties per thousand births and 78.7 years, respectively.⁷³

Like Uruguay, Chile has pursued the attainment of universal health coverage for its population, giving the impression that Chile would have been able to contain the virus just as well as Uruguay has. While both systems are among the best performers in medical coverage and outcomes, they differ in their architecture, funding, and administration.⁷⁴ To better understand the strengths and weaknesses of Chile's pandemic response welfare system, the following sections will analyze its welfare system, pandemic preparedness and response, to demonstrate strengths and weaknesses of its government's strategies.

1. Welfare System

Chile's welfare system has faced several reforms since its establishment under Pinochet's dictatorship in the 1980s.⁷⁵ The health and pension systems introduced by Pinochet allowed people to obtain medical care through the use of public or private insurance providers, and earn a pension through contributions made by them and their employers into one of six private pension funds.⁷⁶ Since inception, the public insurance

⁷² "Mortality Rate, Infant (per 1,000 Live Births); Life Expectancy at Birth, Total (Years) - Chile," 2019, <https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?locations=CL>; Eduardo Missoni and Giorgio Solimano, "Towards Universal Health Coverage: The Chilean Experience," Background Paper, World Health Report (World Health Organization, 2010), 4–5, <https://www.who.int/healthsystems/topics/financing/healthreport/4Chile.pdf>; Pamela Bernales-Baksai, "Tackling Segmentation to Advance Universal Health Coverage: Analysis of Policy Architectures of Health Care in Chile and Uruguay," *International Journal for Equity in Health* 19, no. 1 (July 31, 2020): 6, <https://doi.org/10.1186/s12939-020-01176-6>.

⁷³ Jiaquan Xu, "Mortality in the United States, 2018," *U.S. Department of Health and Human Services*, no. 355 (2020): 2; U.S. Census Bureau, "Income and Poverty in the United States: 2019," The United States Census Bureau, accessed January 24, 2021, <https://www.census.gov/library/publications/2020/demo/p60-270.html>.

⁷⁴ Bernales-Baksai, "Tackling Segmentation to Advance Universal Health Coverage."

⁷⁵ Bernales-Baksai; Missoni and Solimano, "Towards Universal Health Coverage," 6–7.

⁷⁶ Bernales-Baksai, "Tackling Segmentation to Advance Universal Health Coverage."

system, managed by the National Health Fund ‘Fondo Nacional de Salud’ (FONASA), has provided access to medical care to the most vulnerable, offering free healthcare to indigents, while also allowing contributing members access to care outside of the public system through the use of co-payments.⁷⁷ While private insurers provide higher quality of care, their large premiums prevented access by middle and low income populations. Moreover, lack of government regulation on insurance practices allowed implementation of gender biased policies through which private insurers could discriminate and provide unequal access to care to even those that can afford them. For example, women insurance premiums used to be four times higher than men for similar health plans, and the elderly used to pay as much as eight times higher premiums than young adults.⁷⁸ However, gender bias was not only seen within private insurers. The government insurance was also biased since men could not be enrolled under their wife’s insurance, while the opposite was allowed.⁷⁹ Lastly, the pension system introduced under the Pinochet regime did not provide pensions or social protections to people that could not afford to contribute or were not enrolled in the pension system, leaving a large amount of the population at risk.⁸⁰

Seeking to improve the slow and poor medical attention provided by FONASA, address flagrant inequalities within the private medical system, and provide better protections to the aging population of Chile, the leftist governments of Ricardo Lagos and Michele Bachelet introduced seven reforms.⁸¹ Through these reforms the government improved the health system by increasing investment in infrastructure, hospital goods, equipment, increasing salaries for medical professions, extending universal access, guaranteeing medical attention of over 80 pathologies within the private and public sectors,

⁷⁷ Jean-Pierre Unger et al., “Chile’s Neoliberal Health Reform: An Assessment and a Critique,” *PLoS Medicine* 5, no. 4 (April 2008), <https://doi.org/10.1371/journal.pmed.0050079>; Bernales-Baksai, “Tackling Segmentation to Advance Universal Health Coverage,” 4–7.

⁷⁸ Unger et al., “Chile’s Neoliberal Health Reform,” 544.

⁷⁹ Missoni and Solimano, “Towards Universal Health Coverage,” 6.

⁸⁰ Unger et al., “Chile’s Neoliberal Health Reform,” 542–43.

⁸¹ Missoni and Solimano, “Towards Universal Health Coverage,” 9.

and by creating regulations to address inequalities and discrimination in the private health system.⁸²

To accomplish these reforms, health spending was increased from \$15 million to \$86.5 million per year and were funded by removing tax cuts introduced during Pinochet's dictatorship and sustaining health expenditures at three percent of the gross domestic product during Chile's economic boom.⁸³ Through the health investments, and law changes, Chile built modern, adequately equipped, public hospitals and laboratories that made it the region's scientific and technical leader in medical care. In addition, the reforms reduced private insurers age and sex discriminatory practices, strengthened the rights of the insured and ended practices that allowed private insurers to unilaterally terminate coverage.⁸⁴ Furthermore, the government guaranteed access to care to all Chileans and established standards of treatment with clear wait timeliness that allows paying FONASA patients to seek care through private facilities when the public sector is not capable of accommodating their needs in a timely manner.⁸⁵ To receive care through the private sector, FONASA enrollees are required to pay a fee of up to 20 percent of the cost of the procedure, with a maximum equivalent to 29 monthly contributions, per pathology.⁸⁶ While low-income beneficiaries do not have to pay those fees, they are also not allowed to participate in the private referral program.

In addition to the healthcare reforms, the government extended access to receive a pension to the poorest quintile. Through this new pension system, 60 percent of the poorest are now entitled to receive an old age or disability pension even if they never contributed to the pension system.⁸⁷ Moreover, the new pension system allows people who receive

⁸² Missoni and Solimano, 9.

⁸³ Missoni and Solimano, 8–9.

⁸⁴ Rossana Castiglioni, "Explaining Uneven Social Policy Expansion in Democratic Chile," *Latin American Politics and Society* 60, no. 3 (August 2018): 61, <https://doi.org/10.1017/lap.2018.24>.

⁸⁵ Unger et al., "Chile's Neoliberal Health Reform," 544.

⁸⁶ Castiglioni, "Explaining Uneven Social Policy Expansion in Democratic Chile," 63; Missoni and Solimano, "Towards Universal Health Coverage," 5.

⁸⁷ Castiglioni, "Explaining Uneven Social Policy Expansion in Democratic Chile."

less than \$470 dollars per month to receive a solidarity pension contribution to help offset living expenses and sustain them above poverty levels. Through this new system, coverage was also extended to informal workers and people who are currently not working (such as women in maternity leave), by allowing them to contribute into one of the six private pension systems. The introduced social protections considerably reduced poverty from 38.6 percent in the year 1990 to 11.7 percent in 2017 and extreme poverty from 13 percent to 3.7 percent during the same period, while the vulnerable population (people whose income is between US\$5.5 and US\$ 13 per day) decreased from 44 to 30 percent during the same period.⁸⁸ As a result, the probability of people being unable to cope with unforeseen risks, such as the COVID-19 pandemic was also reduced.

While the reforms implemented during the Lagos and Bachelet governments significantly increased access to care, strengthened regulation of private insurers, reduced poverty levels, and enabled many informal workers to retire, significant challenges remained. Most of the remaining challenges are attributed to the high levels of income and social inequality that still exist in Chile.

With regard to income inequality, recent reports and surveys show that over 60 percent of Chile's population receives an income lower than the average national salary of \$573,964 pesos (USD\$811.60), and 50 percent have an income lower than \$400,000 pesos (USD\$565.77), just barely over the minimum salary of \$320,500 pesos (USD\$453.32).⁸⁹ Which is significant since census reports show Chileans spend per capita approximately \$443,594 pesos monthly.⁹⁰ Moreover literature has shown that only the top income quintile earners are not at "risk of falling into poverty in an employment—or health—related

⁸⁸ Sarah Gammage, Tomás Alburquerque, and Gonzálo Durán, "Poverty, Inequality and Employment in Chile," *International Labour Office* Conditions of Work and Employment No 46 (2014): 9; "World Bank in Chile."

⁸⁹ Instituto Nacional de Estadísticas, "Encuesta de Presupuestos Familiares [Census of Family's Financial Plans]," Government (Santiago, Chile: Instituto Nacional de Estadísticas, 2017), [http://www.ine.cl/estadisticas/sociales/ingresos-y-gastos; C.N.N., "Senado Zanjó Salario Mínimo en \\$326.500 Hasta Abril de 2021 \[Senate Fixed Minimum Salary to \\$326.500 until April 2021\]," October 28, 2020, https://www.cnnchile.com/economia/salario-minimo-326-500-abril-2021_20201028/](http://www.ine.cl/estadisticas/sociales/ingresos-y-gastos; C.N.N.,).

⁹⁰ Instituto Nacional de Estadísticas, "Chile's Census of Family's Financial Plans."

crisis.⁹¹ What makes these numbers more alarming is that 29 percent of the employed population (approximately 2.4 million people) work in the informal sector, and of those, 57 percent take home less than minimum wage, making them extremely vulnerable to crisis.⁹² In addition, 69% of the informal workforce is located in rural areas of the country, and are unequally distributed across the regions.⁹³

With regard to social inequality, literature shows that the implemented changes to decrease access to care time and eliminate discriminatory practices of private insurers were not as effective as the Chilean government advertises. To begin, only those who make over \$250,000 pesos and contribute to FONASA have the option to purchase co-pay vouchers to see specialist in the private sector.⁹⁴ If they are not allowed, or cannot afford the co-pay, they have to wait lengthy times to be seen. Literature shows people wait an average of 302 days to see a specialist, 381, days for surgeries, and 562 days for medical procedures through public hospitals.⁹⁵ The lengthy waits drive most, including the middle and upper middle classes, to pay for services and seek care through the private sector as they prefer debt than suffer through illness for prolonged amounts of time.⁹⁶ In addition to the lengthy wait times, the poor also face unequal access to care in rural areas because of limited

⁹¹ Lysette Henriquez Amestoy, “Formalization: The Case of Chile” (Switzerland: International Labour Organization, 2019), 1–5, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_725018.pdf; Sofia Donoso and Kirsten Sehnbruch, “Social Protests in Chile: Inequalities and Other Inconvenient Truths About Latin America’s Poster Child,” *Global Labour Journal* 11, no. 1 (January 30, 2020): 54.

⁹² Henriquez Amestoy, “Formalization: The Case of Chile,” 3–5; Chilean Instituto Nacional de Estadísticas, “Boletín Estadístico: Informalidad Laboral [Statistical Bulletin: Informal Labor]” (Santiago, Chile: Instituto Nacional de Estadísticas, February 3, 2021), https://www.ine.cl/docs/default-source/informalidad-y-condiciones-laborales/boletines/2020/bolet%C3%ADn-informalidad-laboral-trimestre-octubre-diciembre-2020.pdf?sfvrsn=40afadf4_4.

⁹³ Henriquez Amestoy, “Formalization: The Case of Chile,” 3–6.

⁹⁴ Chile Superintendencia de Salud, “¿Cómo se Clasifican los Beneficiarios de FONASA Según su Tramo? [How are FONASA Beneficiaries Classified According to their Earnings?],” Government, Afiliación y Desafiliación, 2016, <http://www.supersalud.gob.cl/consultas/667/w3-article-6304.html>; Unger et al., “Chile’s Neoliberal Health Reform,” 545.

⁹⁵ Donoso and Sehnbruch, “Social Protests in Chile,” 54.

⁹⁶ Bernales-Baksai, “Tackling Segmentation to Advance Universal Health Coverage”; Unger et al., “Chile’s Neoliberal Health Reform,” 544.

government resources. Literature shows people in rural areas are not able to access adequate or prompt care because they either have to wait for medical staff to make a round of their community and provide care in a community provided center, or they might have access to partially staffed health centers that might have a paramedic capable of providing ambulant treatment of minor cases, such as colds.⁹⁷ Similarly, Chileans with disabilities have reported to have worse access to care because of the difficulties they have to reach care facilities, waiting even lengthier times than people without disabilities for care, and because of their inability to cover both medical and prescription costs.⁹⁸ As a result, it is evident that the more disadvantaged will have more difficulty getting access to critical care facilities and life support equipment, especially during national emergencies.

The need to pay to access better and timely medical care has further increased inequalities in Chile since through this practice public and private care facilities have been situated in locations that favor access to paying customers. Taking advantage of the public sector's inability to provide timely care, the fact that 80 percent of Chile's population receives care through FONASA, and that half of those insured through the public sector are able to some extent afford to pay for vouchers to use private hospitals, the private sector has significantly invested in creating private care facilities to ensure there is enough medical coverage nationwide.⁹⁹ Figure 5 helps us visualize the areas where private facilities have benefited the most from the poor public capacity to treat patients. In the figure we see that the total number of hospitals per region reasonably compares to the amount of population within each region. However, it also shows

⁹⁷ Ximena Aguilera Sanhueza et al., *Estructura y Funcionamiento del Sistema de Salud Chileno [Structure and Performance of Chile's Health System]*, Serie de Salud Poblacional No 2 (Santiago, Chile: Facultad de Medicina Clínica Alemana, 2019), 29, 56, 80, 104, <https://medicina.udd.cl/centro-epidemiologia-politicas-salud/files/2019/12/ESTRUCTURA-Y-FUNCIONAMIENTO-DE-SALUD-2019.pdf>.

⁹⁸ Elena S. Rotarou and Dikaios Sakellariou, "Inequalities in Access to Health Care for People with Disabilities in Chile: The Limits of Universal Health Coverage," *Critical Public Health* 27, no. 5 (October 20, 2017): 604–16, <https://doi.org/10.1080/09581596.2016.1275524>; Unger et al., "Chile's Neoliberal Health Reform," 544–45.

⁹⁹ Donoso and Sehnbruch, "Social Protests in Chile," 54; Chile Ministerio de Desarrollo, "Informe de Desarrollo Social 2018 [2018 Report of Social Development]," Governmental (Santiago, Chile: Government of Chile, 2018), 47, https://www.desarrollosocialyfamilia.gob.cl/storage/docs/Informe_de_Desarrollo_Social_2018.pdf.

that the regions of Metropolitan Santiago, Antofagasta, Valparaíso, and Biobío—who happen to be the four wealthiest regions in the state—have significantly larger amounts of private hospitals than public ones.

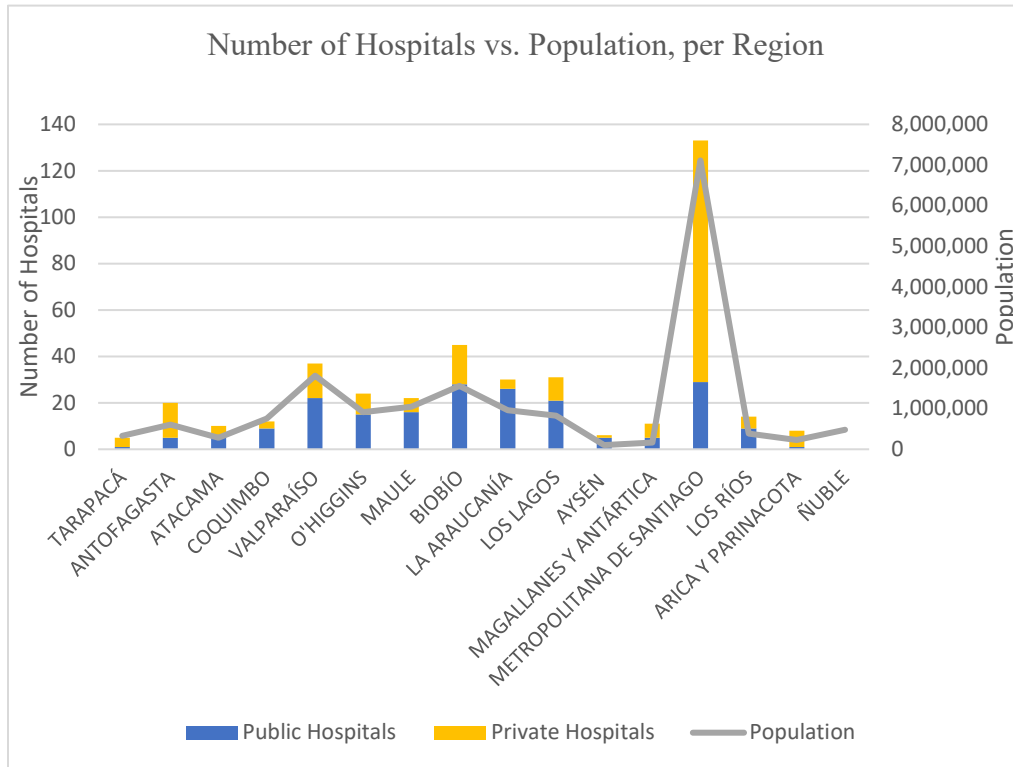


Figure 5. Comparison of number of hospitals with regional population in Chile.¹⁰⁰

Zooming in to study one of these regions will further show how unequal access to healthcare is. Using the Metropolitan Region of Santiago as a case that mimics the reality in other wealthy cities, we can appreciate that the positioning of public and private hospitals negatively impacts access to care for the poor as it favors proximity to wealthier costumers. This observation can be verified by plotting and analyzing the geographical distribution of socioeconomic groups and the locations of private (blue dots) and public (green dots)

¹⁰⁰ Adapted from Ministerio de Salud, Chile, “Listado De Establecimientos [List of Medical Stablissements],” Listado De Establecimientos, November 29, 2020, <https://reportesdeis.minsal.cl/ListaEstablecimientoWebSite/>.

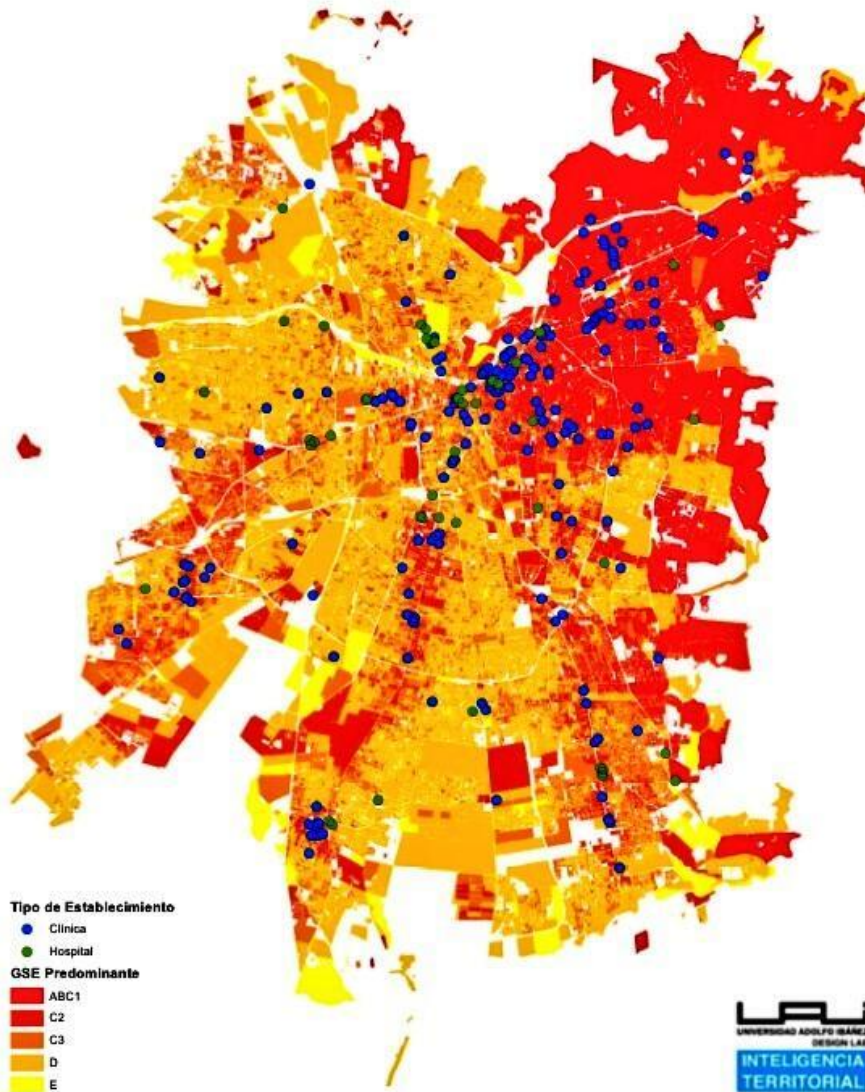
hospitals in the Chilean capital, as shown in Figure 6. The figure sheds light on two key trends. First, it illustrates the geographical distribution of socioeconomic inequalities. In Santiago, the wealthier groups, in categories ABC1—those that make over \$1.9 million pesos per month—are concentrated in the northeast of the city, whereas the western and southern regions concentrate residents from lower socioeconomic categories, most of which make less than \$562 thousand pesos per month.¹⁰¹ Second, the figure illustrates that both private and public hospitals are predominantly located in cluster areas that benefit access to the wealthy, and middle-upper classes who earn at least \$900 thousand pesos per household.¹⁰² The inaccessibility of hospitals and high out of pocket expenses required to reach and get care through hospitals by the poor further increases inequality as it hinders their ability to promptly access care during emergencies, especially when lower income families spend on average 38 percent of their income in out of pocket medical expenditures.¹⁰³ Altogether, these data reveal the deep irony of the Chilean healthcare system: although Chile enjoys one of the strongest welfare states in Latin America and is one of the wealthiest countries in the region—characteristics that arguably provide Chile a significant advantage for implementing a robust and effective response to a pandemic—the existing economic and healthcare inequalities have generated significant vulnerabilities within that welfare state. Despite significant reforms, the Chilean welfare state has continued to segregate large portions of the population who are characterized by being low-income earners that predominantly work in the informal sector, with limited or significantly delayed access to medical care, critical care facilities, and life support equipment, especially during national emergencies.

¹⁰¹ Centro de Inteligencia Territorial, *Gran Santiago Archivos [Archives of Gran Santiago]* (Santiago, Chile: Universidad Adolfo Ibáñez, 2020), <https://bienestarterritorial.cl/ciudad/gran-santiago/>.

¹⁰² *EMOL*, “El Perfil de los Siete Grupos Socioeconómicos de la Nueva Segmentación y Cómo se Divide la Población de Chile [The Profile of the Seven Socioeconomic Groups from the New Segmentation and how Chile’s Population is Divided],” October 19, 2018, sec. Economy, <https://www.emol.com/noticias/Economia/2018/10/19/924437/El-perfil-de-los-siete-grupos-socioeconomicos-de-la-nueva-segmentacion-y-como-se-divide-la-poblacion-de-Chile.html>; Alejandro I. Canales, “La Desigualdad Social Frente al COVID-19 en el Área Metropolitana de Santiago (Chile) [Social Inequality Facing COVID-19 in the Metropolitan Area of Santiago (Chile)],” October 6, 2020, 30.

¹⁰³ Donoso and Sehnbruch, “Social Protests in Chile,” 54; Chile Ministerio de Desarrollo, “Report of Social Development,” 47.

GRAN SANTIAGO



This figure shows the distribution of public and private hospitals in Santiago, Chile. In the figure, green dots represent public hospitals, while blue dots represent private ones. The map also highlights household income, where red shows higher income and yellow lower income per household. The income brackets are ABC1 = more than \$1.9 million pesos, C2 = \$1.36 million pesos, C3 = \$899 thousand pesos, D = \$562 thousand pesos, and E = \$324 thousand pesos.

Figure 6. Map showing locations of public and private hospitals in Santiago, Chile.¹⁰⁴

¹⁰⁴ Source: Centro de Inteligencia Territorial, “Gran Santiago Archivos [Archives of Gran Santiago].”

Population recognition of Chile’s large social and economic inequalities generated extensive social discontent. The extensive discontent, combined with cultural conflict on indigenous people’s rights sparked large, widespread, sometimes violent, protests that demanded government reforms, prior to the arrival of COVID.¹⁰⁵ The violence observed during the protest drove President Piñera to declare a state of emergency for nine days. Through these protests, Chileans sought a more egalitarian country. Ultimately, politicians and President Piñera reached agreements to commit to raise minimum wage to \$350,000 Pesos (USD 451), further increase basic pensions, expand coverage of national healthcare, reduce Congressional and top public official salaries, establish term limits on elected officials, and increase taxes on the rich.¹⁰⁶ More importantly, the protests made politicians agree to allow the population to decide whether Chile should rewrite the constitution written under the Pinochet Regime with the goal of increasing equality and further enhancing social reforms.¹⁰⁷

2. Degree of Preparedness

When it comes to preparedness to face COVID-19, Chile tried to stay ahead of the pandemic by promptly declaring a sanitary emergency, and creating a plan to control the spread of the virus on 30 January, 2020.¹⁰⁸ Through the sanitary emergency declaration, the government gave health minister Jaime Mañalich authorities and USD\$300,000 in funding to hire additional health personnel; enable the ability to hire medical students; conduct direct acquisition of goods, services, and equipment required to control viral spread; coordinate distribution of equipment and pharmaceuticals; establish maximum

¹⁰⁵ Donoso and Sehnbruch, “Social Protests in Chile,” 52.

¹⁰⁶ Donoso and Sehnbruch, 53.

¹⁰⁷ Donoso and Sehnbruch, 53; Pascale Bonnefoy, “‘An End to the Chapter of Dictatorship’: Chileans Vote to Draft a New Constitution,” *The New York Times*, October 25, 2020, sec. World, <https://www.nytimes.com/2020/10/25/world/americas/chile-constitution-plebiscite.html>.

¹⁰⁸ Chilean Government, “Decreto 4: Decreta Alerta Sanitaria por el Período que se Señala y Otorga Facultades Extraordinarias que Indica por Emergencia de Salud Pública de Importancia Internacional (ESPII) Por Brote del Nuevo Coronavirus (2019-NCOV) [Decree 4: Declares Health Alert for the Indicated Period and Provides Extraordinary Authorities Indicated by the Public Health Emergency of Worldwide Importance (ESPII) due to Outbreak of Novel Coronavirus (2019-NCOV)],” Chilean Law, Chile Law, February 8, 2020, <https://www.bcn.cl/leychile>.

prices for pharmaceuticals, medical equipment, supplies, and care; ration medical goods and services sold to people and distributors; conduct direct importation of medicine, and medical devices needed to combat COVID-19; provide hospitals provisional authorizations to quickly adopt new procedures; coordinate a national network to coordinate efforts between public and private care providers' direct public law enforcement and even military forces to conduct sanitary cordons; direct mandatory use of face masks and other medical devices; dictate measures to control agglomerations, conduct testing, contact tracing, and isolation of people infected or under suspicious of infection; and dictate control measures for the entrance and exit of people.¹⁰⁹

The authorities created through the sanitary emergency declaration were required to facilitate the implementation of Chile's pandemic response plan, created 7 January 2020.¹¹⁰ Through this plan, the health minister outlined concepts, roles, and responsibilities of each of the institutions supporting containment of COVID-19. The minister's strategy sought to conduct rapid testing, contact tracing, isolation of people believed to be infected of COVID-19, as well as strengthened Chile's ability to care for people during the pandemic. This concept was first used in South Korea, a country with a more affluent economy, larger state capacity, and different cultural values than Chile.¹¹¹

Chile's plan was ambitious and relied heavily on its health system and the ability for all individuals to isolate within their own homes. This is evident because the main objectives of the plan aimed to extend coverage of polymerase chain reaction (PCR) COVID-19 testing as close as possible to the commune level; minimize time between detection of a positive case and the identification of close contacts to the positive case;

¹⁰⁹ Chilean Government; Hale et al., "Oxford COVID-19 Government Response Tracker."

¹¹⁰ Chile Ministry of Health, "Protocolo de Coordinación para Acciones de Vigilancia Epidemiológica Durante la Pandemia COVID-19 en Chile: Estrategia Nacional de Testeo, Trazabilidad y Aislamiento [Protocol for Coordination of Epidemiological Surveillance Actions During the COVID-19 Pandemic in Chile: Strategy of Testing, Traceability, and Isolation]" (Santiago, Chile: Ministerio de Salud, Gobierno de Chile, January 7, 2020), <https://www.minsal.cl/wp-content/uploads/2020/07/Estrategia-Testeo-Trazabilidad-y-Aislamiento.pdf>.

¹¹¹ BBC News, "La Exitosa Estrategia De Corea Del Sur Para Salvar Vidas En Medio De La Pandemia Del Coronavirus [The Successful Strategy of South Korea to Save Lives Amidst the Coronavirus Pandemic]," *BBC News Mundo*, accessed May 12, 2021, <https://www.bbc.com/mundo/noticias-51838817>.

identify, isolate, and establish effective quarantine measures for positive individuals within 48 hours; increase effectiveness of quarantine and isolation restrictions through implementation of fiscal measures; and establish follow up procedures with active cases and close contacts to minimize continuous spread of the virus.¹¹² To facilitate testing, the plan sought to have mobile laboratories positioned in strategic places such as outside medical centers, communal meeting centers, and other public venues, with the goal of reaching the most vulnerable locations, based on number of positive cases. To enforce restrictions on movement, mandatory isolations, and wearing of face coverings, the government relied on the implementation of fees, checkpoints between communes/regions that were primarily carried by law enforcement and military forces, as well as daily call follow ups with known infected individuals.

However, Chile's plan was defective. While it identified tasks and objectives to conduct their test, trace, and isolate strategy, it did not identify government resources or manpower needed to successfully achieve the plan.¹¹³ This problem originated from the planner's lack of understanding of Chile's state capacity. As a result, not only did the plan fail to identify needed resources, but it also did not estimate the state's ability to provide or obtain more resources. While it could be understandable that a full plan could not be conceived as early as this plan was created, updates to it were not created until after COVID cases were rapidly increasing in country.¹¹⁴ Nevertheless, updates to the plan did not account for, nor adjusted to, the operational realities or challenges observed during the pandemic response, causing chaos. The scarcity of military and police personnel needed to sustain communal isolations, as well as the difficulty to enforce isolations when some communes could remain open within the cities forced the government to switch strategies and only enforce restrictions of movement through implementation of traffic control points

¹¹² Chile Ministry of Health, "Chile: Strategy of Testing, Traceability, and Isolation."

¹¹³ Chile Ministry of Health, "Plan de Acción. Coronavirus COVID-19 [Action Plan. Coronavirus COVID-19]," Repository, Ministerio de Salud – Gobierno de Chile, February 28, 2021, <https://www.minsal.cl/nuevo-coronavirus-2019-ncov/informe-tecnico/>.

¹¹⁴ Chile Ministry of Health.

on the main arteries connecting the metropolitan area of Santiago, and roads connecting each region, as documented in their plan '*paso a paso.*'

The initial plan also failed to establish estimates of needed capacity to conduct testing, provide critical care, or procedures to determine how patients in remote areas would be provided access to prompt medical care. With regard to testing, the initial plan failed to mention how much existing testing capacity Chile had, whether resources to conduct testing were available, or whether there was a need to develop additional testing capacity. This information was critical since there was a desire to implement mobile testing facilities, similar to the ones implemented in South Korea in February 2020.¹¹⁵ Moreover, the plan failed to estimate how many Intensive Care Unit (ICU) beds were needed during the pandemic, methods to transfer critical patients from rural areas with scarce resources, or a plan to purchase or rent ventilators to support people in those ICU beds.¹¹⁶ It was not until April that the University of Chile's Center of Mathematical Modeling created an estimate of how many ICU beds will be needed for the pandemic.¹¹⁷ It was through this analysis that Chile figured out a better strategy to contain the virus as the mathematical models recommended the implementation of temporary lockdowns in addition to the already planned measures as a method to effectively control the rapid spread of the virus.¹¹⁸

Chile's plan also highlights the use of digital means to communicate data across hospitals through existing tracking systems, but it does not acknowledge that all public or private hospitals are using the same software to track patient's information, nor that police and military forces do not have access to those systems to enforce quarantines.

¹¹⁵ Dighe et al., "Response to COVID-19 in South Korea and Implications for Lifting Stringent Interventions," 3.

¹¹⁶ Chile Ministry of Health, "Chile COVID Action Plan."

¹¹⁷ Alonso Cancino et al., "Report #4: Estimation of Maximal ICU Beds Demand for COVID-19 Outbreak in Some Chilean Regions and the Effects of Different Mitigation Strategies," April 14, 2020.

¹¹⁸ Alonso Cancino et al., "Report #3: Estimation of Maximal ICU Beds Demand for COVID-19 Outbreak in Santiago (Chile) and the Effects of Different Mitigation Strategies," April 6, 2020, 10.

In summary, Chile tried to prepare and dedicate resources to respond to the imminent pandemic threat before most other states in the continent, nonetheless, their plan was flawed, poorly funded, and had significant gaps. The flaws and gaps were the result of the health minister's over-reliance in a perceived strong welfare and medical system, as well as his disconnectedness with Chile's realities, level of poverty, and population overcrowding.¹¹⁹ In particular, the plan had gaps in key areas such as the identification and validation of state capacity required to conduct the planned test, trace, and isolate strategy; identification of medical capacity and resources needed to support the surge of patients requiring critical care units; creation of an effective method to enforce isolation measures; and the establishment of resources required to support the most vulnerable during mandatory isolations.

B. INITIAL PANDEMIC RESPONSE

“Like many well-to-do countries, Chile saw its first cases of COVID-19 among the elite—people who had recently traveled to Europe and the United States,” with the first known case registered on 23 February 2020.¹²⁰ Soon after the first cases were observed in country, the government began to implement its plan and commenced to provide free COVID testing, treatment, as well as required isolation of all known cases.¹²¹ However, despite having knowledge of the virus presence in country, the government delayed public acknowledgment of COVID-19 presence until 3 March 2020, failed to rapidly dedicate resources required to increase testing and critical medical care capacity essential to sustain its ambitious plan, delayed the implementation of restriction of movement measures, and

¹¹⁹ Camilo Solis, “Las 9 Veces En Que Mañalich Puso En Riesgo La Salud Pública Y Que La Cámara Consideró Insuficientes Para Acusarlo [The 9 times Mañalich Risked Public Health and That Parliament Considered Insufficient to Acuse Him],” *Interferencia*, October 13, 2020, <https://interferencia.cl/articulos/las-9-veces-en-que-manalich-puso-en-riesgo-la-salud-publica-y-que-la-camara-considero>.

¹²⁰ Jason Beaubien, “How Chile Ended Up With One Of The Highest COVID-19 Rates,” *NPR*, July 2, 2020, <https://www.npr.org/sections/goatsandsoda/2020/07/02/885207834/covid-19-exploits-cracks-in-chilean-society>; Carlos Montes, “El Mapa Del Avance Del Coronavirus En Chile [Map of the Coronavirus Advancement in Chile],” *La Tercera*, March 10, 2020, sec. Qué Pasa, <https://www.latercera.com/que-pasa/noticia/el-mapa-del-coronavirus-en-chile/O7AODUMXCNCYXC4HLTO7RTKFEY/>.

¹²¹ Hale et al., “Oxford COVID-19 Government Response Tracker.”

decided to take a posture that sought to reduce the potential economic impact that full lockdowns would cause on their largely informal economic sector.¹²² In this section, I will show that as a result of the governmental delays to establish control policies, the ineffectiveness of the adopted measures, and the gaps in the pandemic response plan identified in the previous section; the virus spread rapidly once it reached the most vulnerable population, causing the government to adopt additional measures that were not part of their original strategy.

As Chile began to implement its pandemic control plan, it appeared that the proposed strategy would work. Specially since the number of new daily cases was sustained below 500 new cases per day until 25 April 2021.¹²³ To strengthen the government's posture as a result of observing how quickly COVID-19 cases rose in European states from the month of February to mid-March, President Piñera decided to declare a 90 day state of exemption on 18 March.¹²⁴ Through this declaration, Chilean authorities implemented a range of measures, which included travel restrictions, closing of borders to all foreign nationals, school closures, nightly curfews, implementation of hefty fines of up to \$10 million pesos (~USD\$13,800) for violations of curfews or mandatory isolation, imprisonment laws for people violating sanitary measures, limited costs of COVID-19 treatments, ceilings for COVID-19 test cost, bans on public gatherings of over 200 people, closure of night clubs and communal houses, and requested public and private entities to maximize teleworking.¹²⁵ More importantly, this declaration allowed Piñera to allocate USD\$11.75 billion to temporarily support liquidity in the private sector, sustain

¹²² Fabian Cambreo, Cassandra Garrison, and Chizu Nomiya, "Chile Records First Confirmed Case of Coronavirus: Health Ministry," *Reuters*, March 3, 2020, <https://www.reuters.com/article/us-health-coronavirus-chile-idUSKBN20Q2UU>; Sebastián Piñera, *Declaración Plan para Enfrentar el Coronavirus [Declaration Plan to Face the Coronavirus]* (Chilean Government, 2020), https://s3.amazonaws.com/gobcl-prod/filer_public/17/1c/171c48f7-5f5c-4f04-aa72-2f5c731de6c9/declaracion_coronavirus_16mar20.pdf.

¹²³ Hale et al., "Oxford COVID-19 Government Response Tracker."

¹²⁴ Piñera, *Declaration Plan to Face the Coronavirus*.

¹²⁵ Piñera; Chilean Government, "Medidas Adoptadas por el Gobierno de Chile Ante Brote de COVID-19 [Measures Adopted by the Chilean Government in Response to COVID-19]," *Official News Paper*, March 18, 2020, <https://chilereports.cl/noticias/2020/03/18/medidas-adoptadas-por-el-gobierno-de-chile-ante-brote-de-covid-19>.

employment and incomes of majority of the population, support unemployment benefits for informal workers, and allocated a USD\$1.2 billion healthcare investment needed to acquire additional mechanical ventilators and ICU beds required to increase capacity to provide critical care to COVID patients.¹²⁶ All this without having to request congressional approval. As a result of these measures, and the fact that initial cases were observed within affluent neighborhoods where people could isolate, the Chilean government believed their plan was working, and that it should be emulated in other countries.¹²⁷

However, the government's perception of a strong response was inadequate. Using Figure 7 to analyze the effectiveness of Chile's response, it can be appreciated that cases sharply increased shortly after President Piñera made comments stating that Chile's pandemic response was a model to follow by other governments, and that Chile was exploring a plan to re-open its economy. This uptick in COVID-19 cases is attributed to the virus making its way to disadvantaged populations characterized for largely relying on informal work, and for living in overcrowded conditions. The high mobility of this population group, combined with their inability to sustain isolation and social distancing requirements established in Chile's pandemic control plan caused the virus to spread quickly.¹²⁸ Realizing that the implemented response strategies were not providing the desired results, the government changed its policies. First the government requested the population to start wearing masks inside public spaces on 17 April 2020, emphasizing that people did not require to wear masks when outdoors, when people could sustain social

¹²⁶ International Monetary Fund, "Policy Responses to COVID19," IMF, March 10, 2021, <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>; Nacional, Chile, Declara Estado de Excepción Constitucional de Catástrofe, por Calamidad Pública, en el Territorio de Chile [Declares State of Constitutional Exemption of Catastrophe, due to Public Calamity, in the Territory of Chile]; Hale et al., "Oxford COVID-19 Government Response Tracker."

¹²⁷ Beaubien, "How Chile Ended with Highest COVID Rates."

¹²⁸ Solis, "Las 9 Veces En Que Mañalich Puso En Riesgo La Salud Pública Y Que La Cámara Consideró Insuficientes Para Acusarlo [The 9 times Mañalich Risked Public Health and That Parliament Considered Insufficient to Acuse Him]."

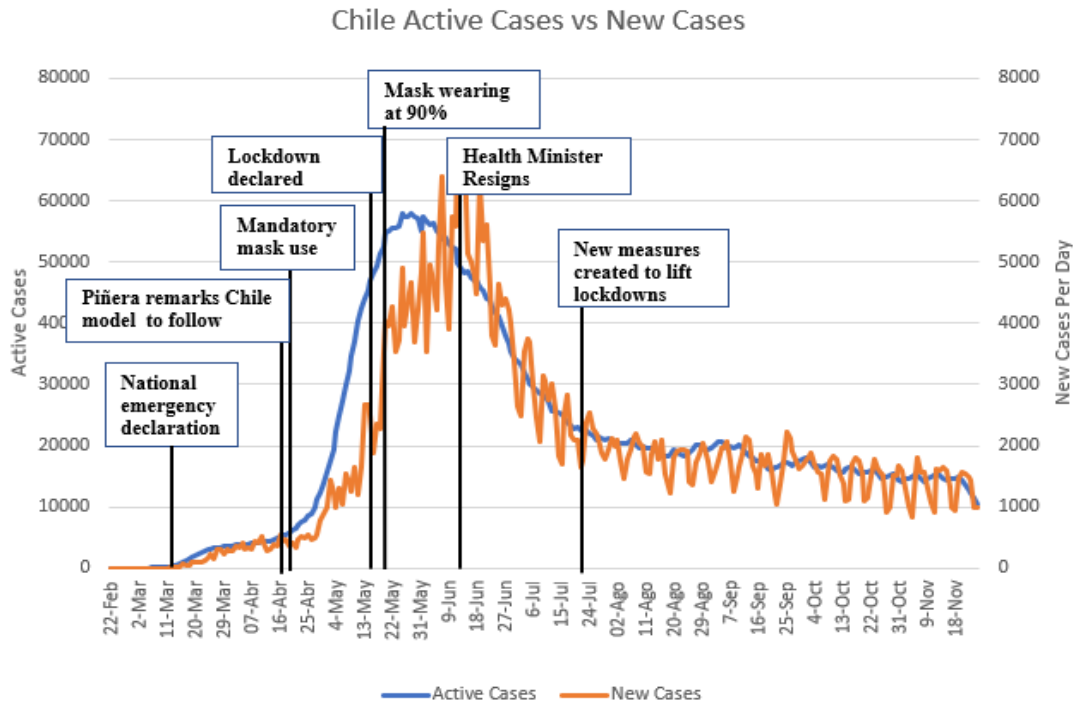
distancing.¹²⁹ Mask wearing restrictions were later expanded to public transportation, and areas where more people would congregate, as they were showing to help control the viral spread. Since mask wearing alone was not providing the needed results to control the virus, the government implemented a mandatory, statewide lockdown around 13 May.¹³⁰ It was not until the lockdown was implemented and 95 percent of the population wore masks in public places that Chile was able to control the rapid spread of the virus.¹³¹ Because these two measures seemed to have the most impact at controlling the spread of the virus, the Chilean government chose to sustain the lockdown until August 2020, and enforce mask wearing indefinitely.¹³²

¹²⁹ Chile Ministry of Health, “Comienza Uso Obligatorio de Mascarilla En Lugares Públicos Cerrados [Mandatory Use of Masks in Enclosed Public Spaces Begins],” Governmental, Ministerio de Salud – Gobierno de Chile, April 17, 2020, <https://www.minsal.cl/comienza-uso-obligatorio-de-mascarilla-en-lugares-publicos-cerrados/>.

¹³⁰ *GardaWorld*, “Chile: Santiago to Be Placed Under Total Lockdown from May 15 /Update 16,” May 14, 2020, <https://www.garda.com/crisis24/news-alerts/341936/chile-santiago-to-be-placed-under-total-lockdown-from-may-15-update-16>.

¹³¹ The Guardian, “Chile: Pandemic Highlights Health Crisis as Lockdown Halts Inequality Protests,” *The Guardian*, May 5, 2020, sec. Global development, <http://www.theguardian.com/global-development/2020/may/05/chile-coronavirus-healthcare-protest-inequality>.

¹³² Al Jazeera, “Chile Cautiously Lifts Lockdown Lid on Capital’s Centre,” *Al Jazeera*, August 12, 2020, <https://www.aljazeera.com/news/2020/8/12/chile-cautiously-lifts-lockdown-lid-on-capitals-centre>.



The figure shows the number of active cases and number of new daily cases plotted against time during the months of February to November 2020. Markers in the figure have been positioned to show how additional social distancing and mask wearing measures shaped the number of COVID-19 cases in Chile.

Figure 7. Evolution of Chile’s pandemic response plotted against active and new daily cases.¹³³

The prolonged lockdown made Chile the state with the world’s longest quarantines to date. It is important to note that this prolonged lockdown was sustained despite President Piñera’s acknowledging that the Chilean population could not sustain a lengthy lockdown as the government is not capable of providing basic goods and services for those under quarantine.¹³⁴

¹³³ Adapted from Hale et al., “Oxford COVID-19 Government Response Tracker”; KPMG, “Government and Institution Measures in Response to COVID-19.,” *KPMG*, June 10, 2020, <https://home.kpmg/xx/en/home/insights/2020/04/chile-government-and-institution-measures-in-response-to-covid.html>; Chilean Government, “Paso a Paso [Step by Step]” (Chilean Government), accessed June 20, 2021, <https://www.gob.cl/coronavirus/pasoapaso/>; The Guardian, “Chile.”

¹³⁴ Gonzalez et al., “The Coronavirus in Latin America.”

Further analysis on the actions that contributed to the rapid propagation of COVID-19 in Chile, revealed that delays in the implementation of public policy, initial lack of state capacity to conduct large scale testing, the large informal sector that is plagued with inequalities, population overcrowding in vulnerable areas, and the low capacity to care for critically ill patients were contributors to the rapid spread of the virus.

Reviewing the speed of how quickly policies to control the spread of the pandemic were enacted, it can be appreciated that Chile was slow to act. As noted previously, in the literature review, early governmental intervention significantly decreases contagion and mortality risks within populations.¹³⁵ Literature also determined that in the case of pandemic influenza, a two-week delay in action significantly impacted the effectiveness of the control measures adopted by governments. In a similar way to those studies, it can be appreciated that delayed government action contributed to the large number of COVID-19 cases observed in Chile. This is evident because countries that adopted social distancing, mask wearing, and other diverse measures within a week of registering the first case of COVID-19 had a more successful response than Chile. An example of this is Uruguay. In Chile, however, the government took approximately three weeks on average to act. We can demonstrate this by exposing that the government declared a state of emergency in mid-March, when the first cases were observed in late February.¹³⁶ Additional delayed measures that could have helped the viral spread include mandates that incentivized mask wearing, social distancing, and limitations to large conglomerations. These measures were not taken by the Chilean government until late March, or mid-April, when the viral spread commenced to become chaotic, because the government wanted to apply policies that favored economic prosperity.

We can also appreciate that despite Chile's early development of a control plan in January, the country did not dedicate resources to increase state capacity to test, or care for

¹³⁵ Hatchett, Mecher, and Lipsitch, "Public Health Interventions and Epidemic Intensity During the 1918 Influenza Pandemic," 2.

¹³⁶ Chilean Government, "Chile, Declaration of National Health Emergency"; Francisco Vergara et al., "Ciudad y COVID-19: Desigualdad Socio Espacial y Vulnerabilidad [City and COVID-19: Socio-Spatial Inequality and Vulnerability]," *CEDEUS* (blog), March 24, 2020, <https://www.cedeus.cl/ciudad-covid-19-desigualdad-socio-espacial-vulnerabilidad/>.

its people until March, thus decreasing its ability to obtain the required supplies to conduct the planned strategy.¹³⁷ The country was also slow to provide resources to purchase the necessary medical equipment needed to help people survive the virus. This is demonstrated by the late allocation of a USD\$ 263 million emergency health investment, around 13 March, when this action should have been done as part of the development of the pandemic response plan.¹³⁸ Without this emergency funding, Chile was only able to rent four ventilators during the planning stage that occurred between January and the day the first case was observed in country.

When it came to conduct COVID testing, Chile became the country that was able to conduct larger amounts of testing per capita in the region.¹³⁹ However, at the beginning of the pandemic, the state did not have enough capacity to conduct testing because of the volume of testing they could process, and their reliance on the importation of testing kits manufactured in countries like Brazil, China, and the United States, which hindered their action plan.¹⁴⁰ Thanks to Uruguay's development of a less costly testing kit, Chile was able to increase their testing capacity and mandate testing costs to be below \$30 USD.¹⁴¹ As a result, Chile was able to ramp up testing from an initial 800 tests per day to approximately 23,000 tests per day, becoming the Latin American state that conducted the

¹³⁷ Gonzalez et al., "The Coronavirus in Latin America."

¹³⁸ Gonzalez et al.

¹³⁹ Pettersson, Manley, and Hern, "Tracking Coronavirus' Global Spread"; Agencia EFE, "Chile Presume Ser El País De América Latina Que Realiza Más Test PCR [Chile Presumes to be the Country Conducting the Most PCR tests]," *www.efe.com*, June 25, 2020, sec. Sociedad, <https://www.efe.com/efe/america/sociedad/chile-presume-ser-el-pais-de-america-latina-que-realiza-mas-test-pcr/20000013-4280475>.

¹⁴⁰ Gonzalez et al., "The Coronavirus in Latin America"; Gobierno de Chile, "Lista Test Rápidos COVID-19 Chile [List of Rapid COVID-19 Test]" (Santiago, Chile, April 3, 2020), https://www.minsal.cl/wp-content/uploads/2020/04/Lista-Test-Rapidos-Covid-al-03_04_2020.pdf.

¹⁴¹ Mi Punín Larrea, "Comunicación y Periodismo. Cinco versiones de la historia," 70th ed. (Revista Latina de Comunicación Social, 2015), <https://doi.org/10.4185/cac99>; AreaW3- Uruguay XXI, "Uruguay Desarrolló Test Para Detección De COVID-19 [Uruguay Developed Test to Detect COVID-19]," *Uruguay XXI*, April 2, 2020, <https://www.uruguayxxi.gub.uy/es/noticias/articulo/talento-uruguayo-enfrenta-con-exito-el-covid-19/>.

most COVID-19 test per capita, capping at 1,800 examinations per million inhabitants.¹⁴² Notwithstanding, the lack of sufficient initial testing capacity further demonstrates that Chile's pandemic control plan was not well thought of as it did not consider existing state limitations to acquire and administer those tests, or how quickly the viral spread would overcome its testing capacity. If Chile had not been able to acquire test kits from Uruguay, the number of infections would have surpassed testing capacity as early as late April 2020, causing the country to pursue different strategies than the ones taken.

Another limitation to Chile's ability to control the COVID-19 spread was the lack of capacity to care for its people, as it was outlined in its plan. Through research it was determined that Chile sought to increment availability of critical medical equipment, such as ICU beds, mechanical ventilators, and number of hospital rooms in both public and private hospitals, to properly respond to COVID-19. The increase in capacity was critical since Chile had less than half the capacity other OECD countries had at that time.¹⁴³ Having determined the need to increase state capacity after initial calculations of the pandemic impact were conducted, the Chilean government realized that they had to increment the number of ICU beds from 1,423 to over 3,200, available beds from 31,742 to 42,000, build five new hospitals, and increase mechanical ventilators from 642 to 3,107.¹⁴⁴ However, Chile came to this realization in March, and as a result, the Chilean government had a very difficult time obtaining medical devices and supplies since many

¹⁴² Chilean Government, "Ministerio De Salud Reporta 37 Nuevos Casos Confirmados De COVID-19 Y Cifra Ascende a 238 Contagiados En El País [Health Ministry Reports 37 New Confirmed Cases of COVID-19 and Number of Ill People Rises to 238]," Gobierno de Chile, March 18, 2020, <https://www.gob.cl/noticias/ministerio-de-salud-reporta-37-nuevos-casos-confirmados-de-covid-19-y-cifra-asciende-238-contagiados-en-el-pais/>; Agencia EFE, "Chile Presume Ser El País De América Latina Que Realiza Más Test PCR [Chile Presumes to be the Country Conducting the Most PCR tests]."

¹⁴³ Cámara Chilena de la Construcción, "Resumen Infraestructura Crítica para el Desarrollo: Hospitales [Summary of Critical Infrastructure for Development: Hospitals]," 2018, <https://www.cchc.cl/2018/icd-hospitales>.

¹⁴⁴ Presidential Press, "Presidente Piñera Recibe Cargamento de Ventiladores Mecánicos y Equipos de Oxigenoterapia para Atender a Pacientes con COVID-19 [President Piñera Receives Mechanical Ventilators and Oxygen Delivery Equipment to Care for COVID-19 Patients]," June 2, 2020, <http://prensa.presidencia.cl/comunicado.aspx?id=152090>; Cámara Chilena de la Construcción, "Summary Critical Infrastructure Chile"; Chilean Government, "Cifras Oficiales COVID-19 - Junio [Official COVID-19 Records - June]" (Santiago, Chile, June 29, 2020), <https://www.gob.cl/coronavirus/cifrasoficiales/#datos>.

countries had established export controls on these items fearing for the wellbeing of their populations.¹⁴⁵ The export restrictions, together with the lack of state capacity, caused the state to continuously have hospitals working above 85% capacity until June, causing medical professionals to constantly restrict access to ventilators to patients who had larger chances of surviving the virus.¹⁴⁶ The state difficulties due to the scarcity of ventilators were so large that hospitals resorted to use Continuous Positive Airway Pressure (CPAP) machines, typically used to help with sleep apnea, to force air into critically ill people.¹⁴⁷ To partially alleviate the lack of capacity observed between May and June, Health Minister Mañalich requested the Air Force to bring patients to less affected regions.¹⁴⁸

In addition to increasing medical capacity, the Chilean government determined on 27 March that it needed to establish areas to help isolate first responders as well as infected, low risk, patients who could not isolate at home.¹⁴⁹ Through this decision, the country offered over 9,500 rooms in diverse hotels to the population. This action was needed because of increased risk of exposure for families of first responders, as well as the high transmission rates observed in the most vulnerable populations living in overcrowded

¹⁴⁵ Economic Commission for Latin America and the Caribbean, “Restrictions on the Export of Medical Products Hamper Efforts to Contain Coronavirus Disease (COVID-19) in Latin America and the Caribbean” (United Nations, November 21, 2020), 2–4, <https://doi.org/10.18356/9789210054232>.

¹⁴⁶ Chilean Government, “Official COVID-19 Records - June”; Cámara Chilena de la Construcción, “Summary Critical Infrastructure Chile.”

¹⁴⁷ Francisca De La Vega, “Universidad de Chile Participa En Validación de Nuevos Ventiladores Mecánicos Para Superar Crisis Por COVID-19 [University of Chile Participates in Validation of New Mechanical Ventilators to Overcome Crisis Created by COVID-19],” *Universidad de Chile*, May 29, 2020, <https://uchile.cl/noticias/163849/u-de-chile-participa-en-validacion-de-nuevos-ventiladores-mecanicos>; Andrés Almeida, “Mañalich Da por Perdidos 1.400 Ventiladores Comprados a Destiempo, con lo que la Red Asistencial Colapsaría Totalmente al Llegar a los 30.000 Infectados [Mañalich Says 1,400 Ventilators will be Lost due Delayed Purchases, without which Health Network would Collapse when 30,000 Infections are Reached],” *Interferencia*, April 10, 2020, <https://interferencia.cl/articulos/manalich-da-por-perdidos-1400-ventiladores-comprados-destiempo-con-lo-que-la-red>.

¹⁴⁸ Gonzalez et al., “The Coronavirus in Latin America.”

¹⁴⁹ Presidential Press, “Presidente Piñera Recibe Cargamento De Ventiladores Mecánicos Y Equipos De Oxigenoterapia Para Atender a Pacientes Con Covid-19”; Gobierno de Chile, “Requisitos Que Indica Para Las Residencias Sanitarias [Requirements for Operation of Sanitary Homes],” Congressional Library (Santiago, Chile, June 4, 2020), <https://www.bcn.cl/leychile>; Chilean Government, “Official COVID-19 Records - June.”

conditions.¹⁵⁰ To be able to access these residences, Chilean's had to show that they could not isolate at home, whether that would be because they live with high-risk people, or because of overcrowded conditions.¹⁵¹

As health officials quarantined neighborhoods, the government implemented the planned sanitary cordons and required residents to apply for special passes that would allow them to attend medical facilities and buy groceries. However, due to the economic inequalities and unemployment laws in the country, informal workers could not benefit from unemployment insurance to cover for their basic needs. As these individuals stopped receiving income, it became evident that they could only face the pandemic through governmental help. Nevertheless, despite knowing the informal population would need additional help, the Chilean government only contributed an insufficient USD\$60 stimulus to people in the poorest economic brackets. The lack of economic support from the government increased difficulty to enforce isolation and social distancing measures since people resorted to continue working out of mere necessity. This data was corroborated with mobility data collected by Google which shows that during required quarantine periods, 40 percent of the population continued attending a business, while the government was able to only get an additional 20 percent of the population to stay home.¹⁵² Another aspect that generated issues was a decision of the government to change employment laws, allowing employers the ability to not pay their employees if they were not able to work as a result of the health crisis. These income challenges further stressed the state's capacity to initially control the spread of the pandemic, and further shows that Government leader's lacked understanding of the socioeconomic inequalities within the state as they responded to this pandemic.

¹⁵⁰ Beaubien, "How Chile Ended with Highest COVID Rates."

¹⁵¹ Maria Luisa Cisternas, "Inequidades Y Retraso En El Ingreso: Los Obstáculos Que Enfrenta La Estrategia De Residencias Sanitarias [Inequality and Delays in Entry: The Obstacles Faced Through the Strategy of Sanitary Residences]," June 14, 2020, <https://radio.uchile.cl/2020/06/14/inequidades-y-retraso-en-el-ingreso-los-obstaculos-que-enfrenta-la-estrategia-de-residencias-sanitarias/>.

¹⁵² Chilean Instituto Nacional de Estadísticas, "Chile Informal Labor Bulletin"; Google, "COVID-19 Community Mobility Report," COVID-19 Community Mobility Report, accessed June 19, 2021, <https://www.google.com/covid19/mobility?hl=en>.

The ineffectiveness of the Chile's pandemic control plan, unequal access to healthcare, as well as the socio-economic inequalities in the state also caused higher amounts of COVID-19 related losses within the poorest communes. Analysis of data published by the DEIS made by Chilean news showed that the poorer communes have the highest number of cases and deaths per capita in the region.¹⁵³ More specifically, the data showed that poor communes observed a 74.6 percent increase in the average mortality rate between the months of April and September 2020, when compared to 2019 data.¹⁵⁴ This increase significantly contrasts the wealthier communes which only reported between a 15.4 and 18.7 percent increase in the average mortality over the same period. The Chilean government attributed the increased mortality in the impoverished sectors to the fact that majority of people who reside on those sectors relies on informal work that prevents them of being able to work remotely like higher income people could.

As a result of these challenges, it is evident that Chile's lack of medical capacity to care for its population was caused by improper planning that did not account for the state's realities in the health and economic sectors. It is also observed that despite the state investing in increasing medical capacity during the pandemic, government official's overconfidence and misunderstanding of Chile's realities with regard to infrastructure and employment caused the virus to spread quickly. Moreover, delayed action in the purchase of medical supplies needed to support the healthcare system created significant challenges to the medical staff as they struggled to keep people alive. This crisis was further exacerbated by the lack of medical supplies the world experienced during this time. As a result of these issues, the inadequate access to medical care faced by the most vulnerable, and an additional lack of medical capacity to control COVID-19 in public hospitals, the mortality rate in public hospitals was observed to be twice as much as the mortality rate of

¹⁵³ Sebastián Rivas et al., "Santiago: La Fuerte Alza de Muertes en las Comunas más Pobres de la Capital [Santiago: The Highest Rate of Deaths in the Capital's Poorest Communes]," *La Tercera*, October 18, 2020, <https://www.latercera.com/la-tercera-domingo/noticia/santiago-la-fuerte-alza-de-muertes-en-las-comunas-mas-pobres-de-la-capital/E4RQN5AC3ZFLXAKJGBEAU76Y7U/>.

¹⁵⁴ Rivas et al.; Eduardo Dockemdorff, Alfredo Rodríguez, and Lucy Winchester, "Santiago de Chile: Metropolization, Globalization and Inequity," *Environment and Urbanization* 12, no. 1 (April 1, 2000): 171–83, <https://doi.org/10.1177/095624780001200112>.

private ones.¹⁵⁵ In addition to the medical capacity challenges, it was observed that the government's intention to isolate smaller areas in the country, seeking to prevent economic collapse, further contributed to the virus spreading throughout the country as people moved freely between non quarantined communes as they continued working to sustain their families. As the health crisis continued to worsen, causing medical institutions to be on the verge of collapse, the government took radical actions which required enforcing of a full lockdown, and requiring everyone to wear masks as additional measures to manage the emergency. As a result of the disastrous work controlling the pandemic, the Minister of Health Jaime Mañalich, resigned from his position. In his resignation, he acknowledged the failures of his pandemic control plan, and recognized that he did not understand the economic and health inequalities that the Chile currently has.¹⁵⁶

C. LONG-TERM PANDEMIC RESPONSE

To alleviate the challenges observed during the initial pandemic response and improve the state's position to recover from the economic turmoil the pandemic has caused, the Chilean government sustained the emergency declaration and the authorities gained from it throughout the duration of the pandemic, expanded welfare benefits to encourage people to stay home and isolate, sustained the country closed to international travel, and created a reopening plan that mimicked the strategy used in the pandemic control plan. These policies were implemented in efforts to alleviate the economic struggles the population faced as the lockdown extended from May to August 2020, and because the government realized that the economy could only be re-opened if the pandemic is controlled. Following I would present the long-term actions taken by the Chilean government to control the health crisis caused by COVID-19. The government actions would be separated between economic relief policies, and pandemic control and reopening plans.

¹⁵⁵ John Barlett, "Chile Celebró Su Éxito y Empezó a Reactivar El País. Luego, Las Infecciones Se Dispararon. [Chile Celebrated Its Success and Started to Reactivate the Country. Then, Infections Shot-Up]," *Washington Post*, June 24, 2020, <https://www.washingtonpost.com/es/tablet/2020/06/24/chile-celebro-su-exito-y-empezo-reactivar-el-pais-luego-las-infecciones-se-dispararon/>.

¹⁵⁶ John Bartlett, "Chile's Health Minister Quits Over Government Response to COVID-19," *The Guardian*, June 14, 2020, sec. Global development, <https://www.theguardian.com/global-development/2020/jun/14/chiles-health-minister-quits-over-government-response-to-covid-19>.

1. Economic Measures and Social Programs

To alleviate the economic impact on vulnerable populations, President Piñera, through advice from the new Health Minister, Enrique Paris, extended the emergency health declaration throughout the duration of the pandemic; providing the executive with large power to promptly enact policy. Through this declaration, President Piñera invoked a special clause in their constitution that allowed him to free up USD\$12 billion in funds, around 14 June, to help the most vulnerable cope with the economic difficulties created due to unemployment.¹⁵⁷ The measures that were enacted with those funds included the extension of unemployment insurance to all formal workers, delaying the payment of small business taxes, a onetime cash bonus of USD\$60 that was meant to reach 2 million informal workers, cover COVID related health care expenses, provide liquidity to the private sector, and creation of USD\$6600 million emergency funds for municipalities.¹⁵⁸ Before the USD\$12 billion were allocated, President Piñera announced on 12 April that there would not be amortizations required for loans, and that interest rates for company loans would be zero as a method to further aid the economy. This action was also taken to help support economic activity and liquidity of the private sector. Since the initial economic benefits extended by the government were not enough to cover long term isolation of the informal workers, people who were facing hunger took to the streets on 18 May, just three days after the government declared a full country lockdown.¹⁵⁹ To aid those informal workers, authorities announced a USD\$2 billion support package. Through this package, the government created a program that provides cash transfers between USD\$170–USD\$340

¹⁵⁷ Dave Sherwood, “Chile’s Pinera Unveils \$11.7 Billion Coronavirus Aid Package,” *Reuters*, March 19, 2020, sec. Emerging Markets, <https://www.reuters.com/article/us-health-coronavirus-chile-economy-idUSKBN2163CS>.

¹⁵⁸ Sherwood.

¹⁵⁹ Castiglioni, “La Política Chilena En Tiempos De Pandemia Entre La (Des)Movilización Social y La Crisis Sanitaria [Chilean Politics in Times of a Pandemic Are Between Social (De)Mobilization and a Sanitary Crisis].”

to affected informal worker households, based on necessity.¹⁶⁰ In addition, on 17 May, the government announced a small program that distributed 2.5 million food baskets to those in need. However, this program was just a political move as it did not provide long term benefits to the population.

Once the government realized that it had to endure the effects of the pandemic for a prolonged amount of time, President Piñera made the decision to allocate USD\$12 billion in financial stimulus. Through this stimulus, the Chilean government sought to support the suffering middle and lower classes by providing soft loans, mortgage payment delays, subsidies on rental properties, and direct transfers of up to USD\$635 to middle class workers with severe income losses.¹⁶¹ Moreover, employees who lost work and met unemployment requirements were able to apply for insurance which covered up to 70 percent, 55 percent, and 45 percent of their salary during the first, second to fourth, and beyond months following suspension of work, respectively.¹⁶² This unemployment insurance, however, was limited to a maximum of USD\$ 275 per month. Some people were able to alleviate these conditions by negotiating reductions in work hours with a proportional reduction of salary that also allowed them to receive up to 25 percent unemployment benefits. But these economic measures were not enough to sustain the already suffering population. As a result, Congress approved legislation to allow withdrawal of up to 10 percent of their pension funds to cover for personal expenses, on

¹⁶⁰ Hamidou Taffa Abdoul-Azize and Rehab El Gamil, “Social Protection as a Key Tool in Crisis Management: Learnt Lessons from the COVID-19 Pandemic,” *Global Social Welfare*, September 1, 2020, 1–10, <https://doi.org/10.1007/s40609-020-00190-4>; International Monetary Fund, “Policy Responses to COVID19,” IMF, June 2021, <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>.

¹⁶¹ International Monetary Fund, “Policy Responses to COVID19,” June 2021; Abdoul-Azize and Gamil, “Social Protection as a Key Tool in Crisis Management.”

¹⁶² Carey, “Law No.21,263 That Temporarily Amends the Requirements and Increases the Benefits’ Amounts of the Unemployment Insurance on the Occasion of the Pandemic Caused by COVID-19, and Improves the Benefits of the Employment Protection Act,” *Law* (blog), September 10, 2020, <https://www.carey.cl/en/law-no-21263-that-temporarily-amends-the-requirements-and-increases-the-benefits-amounts-of-the-unemployment-insurance-on-the-occasion-of-the-pandemic-caused-by-covid-19-and-improves-the-be/>; KPMG, “Government and Institution Measures in Response to COVID-19.”; Aislinn Laing, “Chile Extends Rescue Package to June as Second COVID-19 Wave Bites,” *Reuters*, March 23, 2021, sec. Healthcare & Pharma, <https://www.reuters.com/article/us-health-coronavirus-chile-idUSKBN2BF081>.

23 July. Through these actions, the government estimated to provide aid to 14 of the 19 million people living in Chile.

It is also important to note that the Chilean government estimated the stimulus funding would last them over 24 months. However, these funds lasted until the end of 2020, further showing that there is a large disconnect between the Chilean government and the economic realities lived by the population. Since the economic stimulus helped control the spread of the pandemic, President Piñera increased the fund by USD\$6 billion in December 2020 so that it could continue providing help to the most needed.¹⁶³

To better understand the diverse stimulus packages used by Chile, a summary of the economic and social protection measures implemented are seen in Table 2.

Table 2. Chile’s social assistance and health changes in response to COVID-19 pandemic.¹⁶⁴

Type of Program	Targeting Beneficiaries	Social Grants
Social Insurance (Unemployment benefits)	<ul style="list-style-type: none"> • Employees who lost their work due to COVID-19 	<ul style="list-style-type: none"> • Financial support [\$11.7 billion] to the unemployment insurance fund and all health expenditures • [Beneficiaries get up to 70 percent of income for first quarantine month, 55 percent from second to fourth, and 45 percent for fifth month of quarantine.]
Social Assistance (Cash, in-Kind transfers & Utility waivers)	<ul style="list-style-type: none"> • Employees in informal sectors and extreme poor • Vulnerable families • Vulnerable groups 	<ul style="list-style-type: none"> • Cash transfer of \$170–\$340 per households according to how they are affected by COVID-pandemic • Hygiene products and Non-perishable food, school feeding programs (1,600,000 beneficiaries) • Rescheduling of payment, cancellation of interest and penalties for taxes and late statements
Social insurance (paid sick leave)	<ul style="list-style-type: none"> • Employees of public and private sector staying at 	<ul style="list-style-type: none"> • Leave with pay (\$2 billion)

¹⁶³ Laing, “Chile Extends Rescue Package to June as Second COVID-19 Wave Bites.”

¹⁶⁴ Adapted from Abdoul-Azize and Gamil, “Social Protection as a Key Tool in Crisis Management.”

Type of Program	Targeting Beneficiaries	Social Grants
	home without any remote work	

This table shows a summary of the social insurance, assistance, and healthcare investments implemented in Chile to respond to the COVID-19 pandemic. Part of the table was published by Abdoul-Azize and Rehab El Gamil, while the other part was created by the author from other sources.

Analysis on the emergency funds created to provide cash transfers while well meant, did not aid the Chilean workforce to remain at home, further preventing long term control of the spread of the virus. The low amounts of funding received by Chileans—sometimes as low as USD\$34 per month—made it extremely difficult to keep feeding their families, thus contributing to the need for people to be mobile.¹⁶⁵ The economic difficulties faced by Chileans during this time became even more evident when the government conducted a survey of the impacts of COVID-19 on its population. This survey revealed that over 50 percent of the population were underemployed during, and that over 65 percent did not have enough resources to cover their basic needs during the pandemic.¹⁶⁶ The high mobility caused by the lack of governmental support impacted the populations with lower socioeconomic status the most, as they were required to leave their home seeking employment, they brought the virus back to their homes. The higher risk of exposure these population faced, combined with people choosing not to get tested over risking their ability to work and have freedom of mobility resulted in significantly higher number of COVID-19 cases within the working population (between 20 and 40 years of age).¹⁶⁷ The higher number of cases seen within the working population, however, did not mean higher

¹⁶⁵ International Monetary Fund, “Policy Responses to COVID19,” June 2021.

¹⁶⁶ Instituto Nacional de Estadística - Chile, “Encuesta Social COVID-19 [Social Survey COVID-19]” (Santiago, Chile: Ministerio de Desarrollo Social y Familia, July 2020), 7.

¹⁶⁷ Valentina Fuentes and Philip Sanders, “Chile, El País Que Una Vez Fue Modelo a Seguir Contra COVID, Ahora Es Uno De Los Más Afectados [Chile, Once the Model Country Responding Against COVID, Now One of the Most Affected.,” *El Financiero*, June 16, 2020, <https://www.elfinanciero.com.mx/mundo/chile-el-pais-que-una-vez-fue-modelo-a-seguir-contra-covid-ahora-es-uno-de-los-mas-afectados/>.

mortality rates in the same age group. Rather, in Chile, the elderly—age 70 and older—had ten times higher mortality rates than the youngest, working population.¹⁶⁸

The tragedy of the pandemic also brought back solidarity within Chileans. Reports show that to combat hunger, communities organized and brought back community kitchens that were famous during the depression years lived under Pinochet.¹⁶⁹ To get additional resources to feed people, the community kitchens partnered up with community support organizations that have been providing services throughout the country for many years. The community kitchens, as well as economic support from government were critical since surveys showed over 55 percent of the population declared their income was not enough to cover necessities.¹⁷⁰

2. Pandemic Control and Reopening Plan

Recognizing the difficulties and understanding that the pandemic was here to stay, the state changed the strategy to control the pandemic to allow for economic recovery, while continue to implement measures that appeared to be working at controlling the rapid spread of the virus. First, it slightly modified its control plan to account for the statewide lockdown that was already in effect, putting emphasis on developing a plan that would allow them to partially reopen the economy. Second, it increased capacity to conduct testing and tracing of close contacts seeking to improve control measures of seek patients. Last, it reviewed revised the implemented travel and school closure measures with the goal of minimizing viral propagation while ensuring kids in poor rural areas could continue being educated during the pandemic.

¹⁶⁸ Chilean Government, “Official COVID-19 Records - June,” 6.

¹⁶⁹ José Ospina-Valencia, “Chile En La Crisis De COVID-19: ¿Por Qué Un País Modelo Parece Hundirse En El Caos? [Chile in the COVID-19 Crisis: Why does a Model Country Appear to Sink in Chaos?],” *DW.COM*, May 26, 2020, <https://www.dw.com/es/chile-en-la-crisis-de-covid-19-por-qu%C3%A9-un-pa%C3%ADs-modelo-parece-hundirse-en-el-caos/a-53577659>.

¹⁷⁰ Instituto Nacional de Estadística - Chile, “Social Survey COVID-19,” 7; Ministerio de Desarrollo Social y Familia, “Impactos Socioeconómicos de la Pandemia en los Hogares de Chile [Socioeconomic Impacts of the Pandemic in Chilean Homes]” (Santiago, Chile: Ministerio de Desarrollo Social y Familia, July 2020), 4, https://www1.undp.org/content/dam/chile/202001113_pnud_covid.pdf.

Recognizing that the state could not sustain a prolonged lockdown, the Chilean government announced a new ‘*Step-by-Step*’ (‘*Paso-a-Paso*’) pandemic control and reopening plan that sought to start getting people out of lockdown starting on 20 July 2020.¹⁷¹ This new strategy, currently being implemented, has five phases through which each municipality could transition through, in accordance with criteria such as hospital bed occupancy, viral transmission rate, and a projected rate of regional active cases. The plan’s five phases are: quarantine, transition, preparation, initial opening, and advanced opening.¹⁷²

In the quarantine phase, people are encouraged to stay home and can go out shopping or take care of small errands with a special pass that can be obtained only twice per week. During this phase, non-essential businesses are required to remain closed, except for funeral homes, and houses of prayer who could host ceremonies with no more than 10 people. In the Transition phase, people can leave their house at any time during the day, host meetings of up to five people at home, attend schools, work, conduct exercises and outdoor activities with up to ten people, and eat outdoors in restaurants. In the preparation stage, the restrictions are further minimized. In this stage people could host meetings with up to 15 people, restaurants could serve food indoors in well ventilated places to groups smaller than 6 people, sport activities are restricted to groups of 25 people or fewer, and gyms could open their doors. During the initial opening phase, people are restricted to having indoor meetings with fewer than 30 people, outdoor activities with fewer than 50 people, and are not able to attend pubs and dance clubs. In addition to this plan, on 3 August the government announced measures to allow in-person work for those unable to work remotely. This new work plan included staggered start, end, and lunch hours to minimize close contact.

Through this new ‘*Paso-a-Paso*’ reopening plan the Chilean government sought to reopen the economy and improve living conditions from its population as it slowly increased liberties and opportunities for people to freely move around. However, many

¹⁷¹ Gonzalez et al., “The Coronavirus in Latin America.”

¹⁷² Chilean Government, “Plan Paso a Paso”; Gonzalez et al., “The Coronavirus in Latin America.”

municipalities rushed to increase liberties with the goal of increasing economic opportunities for their population. As a result of the rushed desire to reopen the economy the progress made through the diverse control policies implemented in response to the pandemic was constantly threatened as cases tended to rise when communities reopened too early. The issues seen with rapid reopening were also exacerbated by poor government communication since the country would ease restrictions without clearly communicating transmission risks to the population. Despite the efforts to sustain the economy active, the Chilean economy contracted by 5.8 percent, and the unemployment rate increased to 27.4%, in 2020.¹⁷³

Considering the difficulties to control the spread of COVID-19 in the months of April to May, the Chilean government decided to increase testing capacity while sustaining the State of Emergency declaration.¹⁷⁴ To strengthen the government's response plan, the health minister reinforced its strategy through the establishment of a task force that administered tests in segregated communities, enhanced the ability to contact close contacts, and increased the number of sanitary residences required to isolate the most vulnerable. Through the use of this strategy, Chile sustained a high testing ratio testing (205 tests per 1000 people), however the government had some challenges in the implementation as people would choose to not get tested over risking their ability to work and have freedom of mobility.¹⁷⁵ As a result, it was difficult for the government to guarantee isolation of the most vulnerable.

To mitigate larger risks of infection, as well as prevent additional, more infectious, variants of COVID-19 from entering the country, the Chilean government sustained the

¹⁷³ Instituto Nacional de Estadística - Chile, "Social Survey COVID-19," 9; International Monetary Fund, "Review Under the Flexible Credit Line Arrangement" (Washington, D.C.: International Monetary Fund, May 2021), <https://www.imf.org/en/Countries/CHL>.

¹⁷⁴ Laing, "Chile Extends Rescue Package to June as Second COVID-19 Wave Bites."

¹⁷⁵ Fuentes and Sanders, "Chile, El País Que Una Vez Fue Modelo a Seguir Contra COVID, Ahora Es Uno De Los Más Afectados [Chile, Once the Model Country Responding Against COVID, Now One of the Most Affected.]"

border closures implemented on March 18 until 23 November 2020.¹⁷⁶ Data shows that the border closures were effective at mitigating increases in number of cases as well as prevented the arrival of the more dangerous Brazilian variant into the state. However, once the borders reopened, things began to worsen up in Chile as cases began to climb again. The decision to reopen borders coincided with the initial deliveries of vaccines; thus, it appears that Chile's hunger to reopen the economy was blinded by the hope that vaccines will protect their population. It is important to note that the increase in cases in the state was observed despite Chile requiring people to present a negative "PCR test [taken] at least 72 hours before their flight..., travel with health insurance..., and update a survey tracking their whereabouts for 14 days upon arrival," before entering the country.¹⁷⁷

To prevent children from becoming large scale spreaders of COVID-19, Chile sustained school closings and restrictions in most educational institutions. However, as part of the step-by-step reopening plan, some students were able to commence attending classes in-person as early as September 2020, with reports on class re-openings showing that 53 percent of schools, primarily in rural areas, had returned to in-person classes by November 2020, to complete the school year.¹⁷⁸ The decision to reopen rural schools, however, was partly driven by Chile's economic inequalities. Because of the economic inequalities seen between rural and urban areas, there were fears that children in rural areas would fall behind as they are unable to access a computer or reliable internet connection.¹⁷⁹ To address these challenges, and help rural, disadvantaged children, the government decided to reopen those schools once conditions were adequate. It is worth noting that pandemic control measures implemented in the schools that re-opened were highly effective at controlling the spread of the virus since only one percent of reopened schools reported to have had more than one COVID case, while only 15 percent reported to have had one isolated COVID-19 case.

¹⁷⁶ Gonzalez et al., "The Coronavirus in Latin America."

¹⁷⁷ Gonzalez et al.

¹⁷⁸ Gonzalez et al.; UNESCO, "How Is Chile Facing the Covid19 Education Emergency? UNESCO Talks with Raul Figueroa, Minister of Education of Chile," UNESCO, April 3, 2020, <https://en.unesco.org/fieldoffice/santiago/articles/minister-education-Chile-covid-19>.

¹⁷⁹ UNESCO, "How Is Chile Facing the Covid19 Education Emergency?"

Despite that progress, the Minister of health delayed reopening all schools until after March 2021 due to opposition from parents and opposing political parties.

Results of the public health interventions implemented through the heavily enforced lockdowns and the new *'paso-a-paso'* plan show that government actions were initially effective in decreasing the pandemic spread.¹⁸⁰ However, premature decisions by some communes to relax intervention measures resulted in continuous rebound in cases, which prevented Chile from being able to reopen the country as they had planned. Data collected by the Chilean government shows that out of the 345 communes in the state, only 63 were in the initial opening phase by November 19, 2020. The inability to reopen the country, as well as the continuous rebound of cases further shows Chile's plan to control the pandemic was ambitious, and that while attempts to address the population's needs were made, the sitting government continued being disconnected from the socio-economic realities of its population.

In addition to the above-mentioned measures, the Chilean government put significant emphasis in the acquisition of vaccines once there were reports of their availability.¹⁸¹ Due to the government's prompt action, Chile received doses of vaccines from Pfizer-BioNTech, Sinovac and AstraZeneca-Oxford to vaccinate its population by the end of November 2020. "Vaccinations started end-December, and as of end-May 2021, about 8 million people have received the second dose, equivalent to about 50 percent of the target population."¹⁸²

D. CONCLUSION

Throughout this chapter we observed many factors that contributed to the poor pandemic response experienced in Chile. First, we noticed a significant contradiction

¹⁸⁰ Mauricio Canals et al., "Epidemic Trends, Public Health Response and Health System Capacity: The Chilean Experience in Four Months of the COVID-19 Pandemic," *Revista Panamericana de Salud Pública* 44 (August 17, 2020): e99, <https://doi.org/10.26633/RPSP.2020.99>.

¹⁸¹ International Monetary Fund, "Policy Responses to COVID19," June 2021; Laing, "Chile Extends Rescue Package to June as Second COVID-19 Wave Bites."

¹⁸² International Monetary Fund, "Policy Responses to COVID19," March 10, 2021.

between Chile's significant capacity to provide healthcare and economic support for its most vulnerable, while being grossly uninformed about the conditions under which their citizens live. Thus, the state was ill prepared to respond adequately to the needs of the population. Moreover, the test, trace, and isolate plan created to contain the viral spread overestimated Chile's existent medical state capacity, as well as their capacity to enforce the restrictions of movement that the sanitary cordons sought to accomplish. The Chilean's government overreliance on its healthcare system was due to the health minister's belief that Chile had developed, over the years, a strong healthcare system capable of withstanding the pandemic. Chile's health minister had that perception since over the last four decades, Chile had adopted reforms that increased medical access to the population. However, he did not account for the insufficient resources the public health system had, or the socio-economic realities of the population which highly relies on a broken public health system that is not capable of providing critical care to rural, and poor communes. Moreover, the plan did not account for the inability of the most vulnerable population to self-isolate when they live in overcrowded conditions.

In addition to a lack of preparedness, it was observed that the Chilean government's desire to favor policies that sought to sustain the economy open by allowing people to have mobility while not requiring sufficient social distancing and mask wearing in public spaces further contributed to the virus spreading like wildfire in the months of April to June 2020, once it reached the most vulnerable population. The lack of preparedness combined with a government pretense that pandemic control measures were initially working because early cases were concentrated in affluent neighborhoods also contributed to the virus spreading quickly throughout the most vulnerable sectors of the population.

Analysis of Chile's pandemic response further showed that the government desired to implement policies aimed at preserving jobs; trumping the enactment of policies that would have allowed Chile to both prevent the spread of the virus and reactivate the economy once the viral spread was effectively controlled. This choice of policies further contributed to the spread of the virus since people had to continue to be mobile to work and provide sustainment for their families. The need to work forced people to refuse receiving COVID-19 testing as they would have had to isolate if they were found to be

infected by the virus. This refusal of testing added difficulty to the test, trace, and isolate strategy being implemented by the government, as well as contributed to the rapid spread of the virus.

In the chapter, it was also demonstrated that to stop the rapid spread of the pandemic and overcome the initial deficiencies seen in the response plan, the government had to declare a mandatory statewide lockdown, and enforce mask wearing and social distancing measures. However, the decision to declare a lockdown was only reached once Chile could not continue expanding the critical care facilities who were constantly working at rates above 85 percent of their capacity. I believe that if the Chilean government would had required mask wearing and implemented a two-week lockdown earlier, they would had been better off at containing the pandemic. Moreover, evidence points that if the Chilean government would had increased social insurance protections to allow the most needed to receive at least a minimal salary, the state would have had better results containing the pandemic as people would had been able to isolate without having to worry about being able to feed their families, or have a roof over their heads, rather than being demanded to seek for opportunities to earn those resources. It is evident that the state had the resources required to enhance the socio-economic protections needed to help combat the pandemic, but it chose a different approach that did not help control the virus.

The results of the poor performance of Chile facing the pandemic further show that the socio-economic inequalities in the country would continue to increase as data show it has been the more vulnerable populations who have suffered the most due to their inability to gain a reasonable income, have access to web-based schools, and the high mortality rate experienced within these groups. The economic impact of the pandemic could be long-lasting as the number of economic vulnerable households and corporate indebtedness increases due to lack of governmental support. The economic impacts would continue to be increasing as the mobility and activity restrictions implemented through the new '*Paso-a-Paso*' plan continue to affect tourism, retail, trade, construction, and transportation industries, impacting the recovery of employment in these sectors.

Last, we saw that results of the public health interventions implemented through the new '*paso-a-paso*' plan show that government actions were under this strategy were

initially effective in decreasing the pandemic spread. However, premature decisions by some communes to relax intervention measures resulted in continuous rebound in cases, which prevented Chile from being able to reopen the country as they had planned. The rushed desire to reopen the economy by government officials constantly threatened the progress made through the control policies.

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III. URUGUAY

The most remarkable case in response to the COVID-19 pandemic in Latin America has been the case of Uruguay. A country that was able to adequately manage the spread of the virus, despite having neighboring countries that were hard hit with the pandemic, like Brazil and Argentina. Uruguay's efforts at controlling the pandemic were so effective that they were able to sustain contagion numbers under five new daily cases per million people until the end of October 2020, as shown in Figure 8. Thus, studying this case would allow us to determine what governmental actions were effective at controlling the spread of COVID-19.

Many would argue that Uruguay's success could be attributed to the state having pre-established stabilizers such as having a robust unemployment insurance system, and strong noncontributory government assistance services. However, this chapter will show that Uruguay's success rather was due to the ability of the government to exhort the population to voluntarily quarantine when sick, in conjunction with the establishment of a well-planned strategy that similarly to Chile relied on conducting testing, tracing and isolation of sick patients, requiring people to wear masks, and adopt social distancing protocols.¹⁸³ This chapter will further show that Uruguay's success was also due to the state's rapid, science based, response, that was aided by the development of in country testing capabilities, and the ability to follow voluntary isolation guidelines due to the Uruguayan government having implemented strong social protections over the years.

To demonstrate the effectiveness of Uruguay's pandemic control plan, this chapter will first review Uruguay's welfare system and preparedness plan to show how the state provided guarantees for the population to survive the pandemic. Second, it will analyze Uruguay's pandemic response plan, discriminating within policies that were effective at

¹⁸³ Fernando Figueroa et al., "América Latina Ante La Crisis Del COVID-19: Vulnerabilidad Socioeconómica Y Respuesta Social [Latin America Facing the COVID-19 Crisis: Socioeconomic Vulnerability and Social Response]," *United Nations CEPAL Políticas Sociales*, no. 238 (December 2020): 18-40.

controlling the pandemic and policies that limited the state’s ability to continue controlling it.

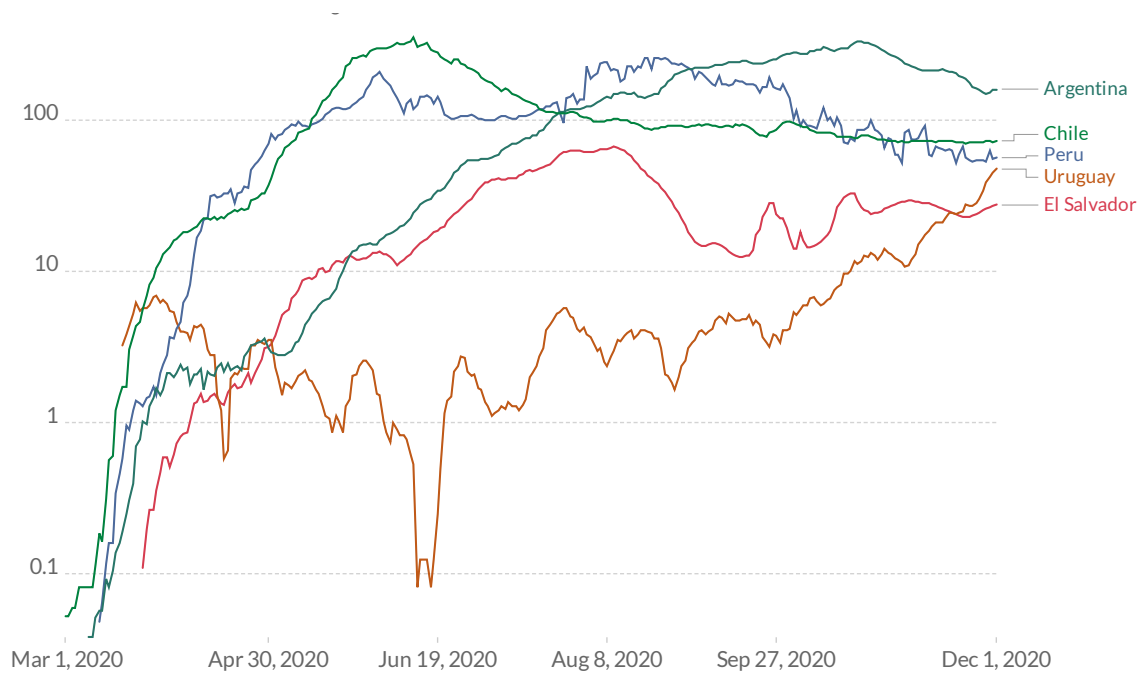


Image shows the 7-day rolling average of new confirmed COVID-19 cases for a selected group of countries in Latin America, in a logarithmic scale, over a 10-month period. Data from John Hopkins University Center for Systems Science and Engineering. Last updated 10 July 2021.

Figure 8. Daily new confirmed COVID-19 cases per million people showing Uruguay’s success.¹⁸⁴

A. URUGUAY BEFORE THE PANDEMIC

Literature studying Uruguay positions the state as a high-income state with the highest GDP per capita in South America.¹⁸⁵ The state’s economic status as well as social reforms that were conducted in the 1940s, 1990s and 2000s have allowed the state to establish more universal social protections that concentrated on ensuring the most vulnerable have access to proper medical care, as well as creating social incentives to retain school attendance at high levels. In addition to the social protections, Uruguay has put

¹⁸⁴ Source: “Coronavirus Pandemic Data Explorer.”

¹⁸⁵ “GPD per Capita.”

effort on developing high health coverage capacity for its population, which gives it a slight advantage over Chile's health system. To better understand the advantages and disadvantages of Uruguay's social protections system in comparison to Chile's, the following sections will analyze its welfare system and pandemic preparedness plan.

1. Welfare System

Uruguay's welfare system has faced similar reforms to the ones enacted in Chile, since the inception of the programs in the 1940s. However, literature shows that Uruguay's healthcare reforms in the 1990s primarily concentrated on decentralizing the administration of the public hospitals, and ensuring the population had access to medical care through either a private insurer or the public system, while barely increasing the amount of government spending.¹⁸⁶ These changes were needed because during that time 10 percent of the population did not have access to medical care either through public or private insurances. However, challenges remained after the reforms in the 1990s were incorporated since rural areas did not have as reliable access to healthcare as Uruguay's capital, Montevideo. Literature further reports that after the 1990s changes, the healthcare system in Uruguay did not experience additional changes until 2005, due to competition among traditional political parties which were heavily influenced by medical Doctors turned into politicians.

Once political parties were able to reach consensus, Uruguay was able to conduct the next health change, in 2005. Through these reforms, the government created the National Integrated Healthcare System and made changes to healthcare financing and regulation structures with the goal of increasing coverage to the most needed, while boosting quality of the care provided by the public sector.¹⁸⁷ Literature notes that these reforms allowed the new National Integrated Healthcare System to guarantee access to medical care to virtually all of its population regardless of income, age, ethnicity or risk

¹⁸⁶ Jennifer Pribble, ed., "Health Care Reform in Chile and Uruguay," in *Welfare and Party Politics in Latin America* (Cambridge: Cambridge University Press, 2013), 57–68, <https://doi.org/10.1017/CBO9781139343299.004>.

¹⁸⁷ Pribble, 60–68.

level, but continued to allow for the country to have a private and a public health system. Data further shows that through these actions, Uruguay ensured 97 percent of its population had access to some form of health coverage and guaranteed that all children and teenagers would have access to medical care. As a result of the reforms implemented in 2007, Uruguay was able to create one of the best health care systems in the world, capable of employing over 5.08 physicians per 1000 people, providing a good variety of medical procedures and medication, and offer mobile medical services.¹⁸⁸ The result of all these efforts is that people in Uruguay enjoys a life expectancy of 76.4 years with a low mortality rate of less than 8.73 per thousand births.¹⁸⁹

To cover health expenses, the new system created a universal healthcare fund into which both private and public affiliates contribute.¹⁹⁰ The contributions made to this system are progressive, with high-income earners paying more than low-income families. Similarly, in this system, single people contribute only four percent of their salary to cover health insurance, while married people with children contribute up to eight percent to cover their expenses, with the government expending approximately nine percent of its GDP in healthcare.¹⁹¹ Additional government spending on these social reforms has been favored due to economic prosperity experienced in the country over the past 15 years. Moreover, independent workers can get access to the medical system through fixed contributions that allows them to be enrolled.¹⁹²

¹⁸⁸ Nolan McMahon, “Healthcare in Uruguay: Paving the Way in South America,” The Borgen Project, June 2020, <https://borgenproject.org/healthcare-in-uruguay/>.

¹⁸⁹ World Bank, “Mortality Rate, Infant (per 1,000 Live Births); Life Expectancy at Birth, Total (Years) - Uruguay,” 2019, <https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?locations=CL>.

¹⁹⁰ Pribble, “Health Care Reform in Chile and Uruguay,” 60.

¹⁹¹ World Bank, “Current Health Expenditure (% of GDP) - Uruguay,” 11 Jul 21, <https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=UY>; Mark Teuten, “How Healthcare Works in Uruguay,” *Guru’Guay* (blog), July 10, 2019, <https://guruguay.com/how-healthcare-works-in-uruguay/>.

¹⁹² Daniel Aran and Hernán Laca, “Sistema de Salud de Uruguay [Uruguay’s Health System],” *Salud Pública de México* 53 (January 2011): s265–74.

Literature further shows that the healthcare reforms adopted in Uruguay were done with a focus on creating equity in contributions and quality of care, rather than for efficiency. Contrary to the Chilean system, Uruguay's healthcare system does not limit access to care for high-cost procedures, it guarantees certain preventative procedures to citizens, and creates mechanisms to hold healthcare providers accountable for ensuring illnesses are covered through the national care system.¹⁹³ In addition to these changes, the government further expanded services of the health system to include access to prescribed high-cost drugs in 2005. Moreover, the new system provides healthcare rights to retirees and pensioners who could not afford care because they received inadequate pensions.¹⁹⁴ As a result, coverage of most illnesses is high, and guaranteed, in Uruguay. But illnesses are not the only things well covered in Uruguay. Reports of health coverage shows that Uruguay is able to provide great access to the population since 95 percent of the population lives in urban sectors, with direct access to larger hospitals.¹⁹⁵ However, to improve access to rural sectors, the government's reforms created policlinics capable of providing basic services, to include routine medical exams as well as laboratory work.¹⁹⁶

The bulk of Uruguay's social assistance programs concentrates on providing pensions for the elderly and disabled poor, as well as providing family allowances designed to allow children to remain in school rather than be forced to work due to lack of family income.¹⁹⁷ When it comes to pensions, Uruguay ensures that all pensioners who retire at age 70 would receive at least a remuneration equivalent to the minimum wage of USD\$407,

¹⁹³ Aran and Laca.

¹⁹⁴ Simone Cecchini, "Universal Social Protection in Latin America and the Caribbean: Selected Texts 2006–2019," January 23, 2020, 94, <https://repositorio.cepal.org/handle/11362/45093>.

¹⁹⁵ Aran and Laca, "Sistema de Salud de Uruguay [Uruguay's Health System]."

¹⁹⁶ Cristina Mitchell and Pan American Health Organization, "Uruguayan Polyclinic Improves Access to Health for the Rural Population" (Pan American Health Organization / World Health Organization, July 19, 2018), https://www3.paho.org/hq/index.php?option=com_content&view=article&id=14502:uruguayan-polyclinic-improves-access-to-health-for-the-rural-population&Itemid=72543&lang=en.

¹⁹⁷ Pribble, "Health Care Reform in Chile and Uruguay," 74.

allowing the elderly population to ensure they could meet their very basic needs.¹⁹⁸ In addition to pensions, Uruguay provides people with disabilities allowances for partial or full disabilities, with partial disability coverage only being payable for up to three years, and providing up to 65 percent of the person’s full retirement benefit in the case of full disabilities.¹⁹⁹ Moreover, recognizing the needs of children born in low income homes, the government provides family allowances designed to allow children and young adults to receive state or private primary education until the age of 14, ensure that they could remain enrolled in higher education until the age of 18, and provide life time allowances for children born with disabilities. Through these actions, the government seeks to increase opportunities for the most vulnerable population, decrease inequalities in income and access to services, and encourage a better future for their population.

Along with social welfare programs, the Uruguayan government provides economic protections to informal workers through a simplified taxation system which provides access to social security and unemployment benefits to independent workers who register and pay taxes.²⁰⁰ Through this process, the government tries to “formalize the informal economy and reduce the social protection exclusions of independent workers,” as well as increase revenue collections.²⁰¹ While participation in this social scheme is voluntary, reports show that over 25,000 informal workers have registered to participate in the program in Uruguay up to 2014. The implementation of this taxation scheme has proven

¹⁹⁸ Banco de Previsión Social, “Topes Y Aumentos De Pasividades [Maximums and Increases of Pension Liabilities],” Banco de Previsión Social, 20221, <https://www.bps.gub.uy/6182/topes-y-aumentos-de-pasividades.html>; Ministry of Work and Social Security, “Salario Mínimo Nacional Aumenta a \$ 17.930 [Minimum Wage Increases to \$17,930],” Ministerio de Trabajo y Seguridad Social, March 12, 2020, <https://www.gub.uy/ministerio-trabajo-seguridad-social/comunicacion/noticias/salario-minimo-nacional-aumenta-17930>; Leonor Saravia, “Uruguay: Family Allowances,” International Labour Office, November 2015, <https://www.social-protection.org/gimi/gess/ShowTheme.action?id=2974>.

¹⁹⁹ Banco de Previsión Social, “Jubilación Por Incapacidad Física Total [Retirement for Total Physical Disability],” Banco de Previsión Social, April 7, 2019, <https://www.bps.gub.uy/3501/jubilacion-por-incapacidad-fisica-total.html>; Uruguayan Government, “International Programs - U.S.-Uruguayan Social Security Agreement - Article 8,” Government Site, accessed July 12, 2021, https://www.ssa.gov/international/Agreement_Texts/annotations/uruguay/uruguay_article_8.htm.

²⁰⁰ International Labour Office, “Monotax: Promoting Formalization and Protection of Independent Workers,” *Social Protection in Action: Bulding Social Protection Floors*, no. 02/2014 (2014): 4.

²⁰¹ International Labour Office, 2.

to be extremely beneficial to combat the pandemic spread in Uruguay as it allowed informal workers to be able to self-isolate without having to worry about being able to provide for themselves and families during that time.²⁰²

Through the implementation of the above-mentioned social protections, Uruguay has been able to decrease income inequalities from a 46.4 Gini coefficient in 2007 to 39.4 in 2019, reduce unemployment from 13 to 8 percent, provide good quality of healthcare to over 97 percent of the population, and a literacy rate of 98.6 percent.²⁰³ Moreover, data shows that through the healthcare investments, Uruguay considerably improved its healthcare quality and expanded coverage (in terms of territory, reach, and inclusion). Despite the progress achieved with the implemented policies, Uruguay still has a long way to go with regard to improving the education system since the social welfare programs have only ensured 30 percent of the population graduates from secondary education, which is significantly lower than how many people graduate secondary education in Chile.²⁰⁴

2. Degree of Preparedness

Uruguay faced some unique challenges when developing the pandemic control plan against COVID-19, considering the country changed presidents and government officials on 1 March 2020; just 13 days before the first case of COVID-19 was observed in country. Despite the transition on government, evidence found in literature shows that the oncoming government was working behind the scenes trying to ensure things would start smoothly

²⁰² International Labour Office, “Extending Social Security to Self-Employed Workers: Lessons from International Experience,” *Social Protection Spotlight*, March 2021, <https://www.social-protection.org/gimi/gess/RessourcePDF.action?id=55726>.

²⁰³ Economic Commission for Latin America and the Caribbean, “Labor Income Inequality Shrank in Uruguay between 2007 and 2014 Despite an Increase in Productive Heterogeneity,” Text (CEPAL, December 7, 2016), <https://www.cepal.org/en/noticias/la-desigualdad-ingresos-laborales-disminuyo-uruguay-2007-2014-pesar-incremento-la>; “Gini Index (World Bank Estimate) - Uruguay,” 2021, <https://data.worldbank.org/indicator/SI.POV.GINI?locations=UY>.

²⁰⁴ “Educational Attainment, at Least Completed Upper Secondary, Population 25+, Total (%) (Cumulative) - Uruguay,” 12 Jul 21, <https://data.worldbank.org/indicator/SE.SEC.CUAT.UP.ZS?locations=UY>.

when the transition occurred.²⁰⁵ On one hand, it was observed that President Luis Lacalle Pou's public strategy was to advocate for the citizens of Uruguay to 'responsibly exercise their liberties' through the voluntary adoption of social distancing, mask wearing, and hygiene measures. While on the other hand, evidence also showed that Health Minister Daniel Salinas was working with the scientific sector seeking to determine an evidence-based strategy that would allow the country to rapidly contain the spread of COVID-19, while allocating targeted economic assistance packages that would further support disadvantaged sectors.

The combined strategy to use scientific evidence, public advocacy asking for cooperation from the citizenry, and the strong welfare protections that allowed citizens the ability to adhere to the governmental requests, seems to be one of the key points that enabled the new government to effectively control the advancement of COVID-19. Following this strategy, the president encouraged people to voluntarily remain at home, within family circles, effectively transferring responsibility of adopting pandemic control measures to the population.²⁰⁶ Through this process, the government also encouraged people and industry to voluntarily adopt sanitary measures as a method to continue living life as normal as possible. For this strategy to be effective, however, the government strengthened its existing social protections, and vowed to provide as much information to

²⁰⁵ Ken Parks, "Luis Lacalle Pou, Uruguay's President With a Plan," *Bloomberg.Com*, December 2020, <https://www.bloomberg.com/news/articles/2020-12-03/luis-lacalle-pou-uruguay-s-president-with-a-covid-19-plan-bloomberg-50-2020>; Organización Panamericana de la Salud, "Cómo Uruguay Desarrolló Kits Propios Para Diagnosticar La COVID-19 en un Contexto de Escasez Mundial [How Uruguay Developed Own Kits to Diagnose COVID-19 in a Context of Global Scarcity]," December 15, 2020, <https://www.paho.org/es/historias/como-uruguay-desarrollo-kits-proprios-para-diagnosticar-covid-19-contexto-escasez-mundial>.

²⁰⁶ Alicia Lissidini, "Uruguay: el Gobierno pide Libertad Responsable [Uruguay: The Government asks for Responsible Liberty]," *Agenda Pública*, April 21, 2021, sec. Agenda Global, <https://agendapublica.es/uruguay-el-gobierno-pide-libertad-responsable/>.

the population as possible, with high levels of transparency.²⁰⁷ It was further noted that the government did not hide from the population that it would take a long time to overcome the effects of the pandemic, causing people to be more accepting of adopting the measures advocated by the government.

The science-based approach to control the advancement of the virus, allowed Uruguay to create and publish a well thought out plan that similarly to Chile's strategy sought to test, trace, and isolate sick individuals, on 9 March 2020.²⁰⁸ While this plan was not published as early as Chile's plan due to changes in government, it was noted that development of the plan commenced around January 2020, when the virus was making its way across European states. Moreover, analysis of Uruguay's plan shows that it was well designed and more elaborate than Chile's plan. In particular, Uruguay's plan comprises three levels of alertness and preparation, the ones that would be adopted based on different levels of risk and impact to public health.²⁰⁹ In the development of this plan, the government took into consideration the characteristics and capacity of propagation of COVID-19, the vulnerability of its population, the geographic areas where cases were being propagated, linkages to geographic or economic industries (such as tourism), seriousness of the disease, and the availability of resources and already established control measures.

Recognizing the limited information available about COVID-19 in the early stages of the pandemic was the main drive for Uruguay to create three levels of response. In the

²⁰⁷ Banco de Desarrollo de América Latina, "Empoderar de Libertad al Ciudadano y Fortalecer los Multilaterales, Claves Para Superar la Pandemia: Presidente de Uruguay [Empower Liberty Among the Citizenry and Strengthen the Economy, Key Elements to Overcome the Pandemic: President of Uruguay]," September 2020, <https://www.caf.com/es/actualidad/noticias/2020/09/empoderar-de-libertad-al-ciudadano-y-fortalecer-los-multilaterales-claves-para-superar-la-pandemia-presidente-de-uruguay/>; Ministerio de Salud Pública, Uruguay, "Plan Nacional de Contingencia Para la Infección (COVID-19) por el Nuevo Coronavirus (SARS COV2) [National Contingency Plan for Infection (COVID-19) due to New Coronavirus (SARS COV2)]," Ministerio de Salud Pública, March 9, 2020, <https://www.gub.uy/ministerio-salud-publica/comunicacion/publicaciones/plan-nacional-contingencia-para-infeccion-covid-19-nuevo-coronavirus>; Ferrere, "Uruguay: COVID-19 Solidarity Fund," *Ferrere*, April 2, 2020, <https://www.ferrere.com/en/news/uruguay-covid-19-solidarity-fund/>.

²⁰⁸ Ministerio de Salud Pública, Uruguay, "Uruguay's COVID-19 Contingency Plan."

²⁰⁹ Ministerio de Salud Pública, Uruguay.

first level of preparedness, the plan outlines tasks and actions needed to prevent the virus from entering the country, while no active cases were observed within the territory.²¹⁰ This level focuses on allowing the country to create and improve protocols, procedures, and infrastructure, needed to combat the pandemic. The main emphasis of this first part of the plan is to create the capacity to detect, investigate, and objectively manage suspected COVID-19 cases, including the sharing of data between health officials and the population.

The second level of response is reached when there is imminent risk of viral propagation in the country.²¹¹ The country enters this level of response when a few cases of COVID-19 have been recorded within the country, but there is no evidence that shows that the virus is actively spreading among the population. In response to this new situation, the plan outlines that the country would further concentrate additional resources and efforts to quickly identify suspected COVID-19 cases, as well as trace close contacts of the individuals involved, with the goal of preventing further contagion. Through this strategy, the government provides authorities to rapidly deploy a mobile team to investigate, provide follow up, and communicate risks of exposure back to the government. Moreover, it strengthens the ability to conduct rapid COVID testing, as well as provides updated preventive and control measures that promote isolation of suspected and confirmed cases.

The third level of response is reached when there is confirmed, sustained, transmission of COVID-19 cases among the population, and there is risk that the viral spread would overcome the state's capacity to respond.²¹² This level of response puts emphasis on ensuring proper and opportune aid is provided to all active COVID-19 cases. The plan, however, also highlights that once the government reaches this level of response, the government would limit the admittance into hospitals of COVID-19 positive patients to just critical patients, who would require access to an ICU. This action was thought to be needed to ensure the state would have enough capacity to respond to critical cases. Moreover, to decrease risk to medical professionals because of critical exposure to the

²¹⁰ Ministerio de Salud Pública, Uruguay.

²¹¹ Ministerio de Salud Pública, Uruguay.

²¹² Ministerio de Salud Pública, Uruguay.

virus, this part of the plan outlines the dedication of additional state resources meant to provide sufficient protective gear to health professionals. To ensure uniform communication of the pandemic response actions, control measures, and expectations from the population, the plan also outlined a communication plan within the different organizations in government. Furthermore, the plan outlines the need to have specific institutions closed, or semi closed, once the government reaches this level of response as the state established that it was critical to minimize mobility of the population for control measures to have a significant impact at mitigating further transmission of COVID-19.

As part of the pandemic control plan, Uruguay devised the capacity to conduct rapid COVID-19 testing with materials and resources available within the state.²¹³ This action began to take place privately through scientists working under the Pasteur Institute and local Universities that wanted to learn how the virus worked around the end of February.²¹⁴ The scientist decided to conduct this research motivated by the scarcity of materials to manufacture molecular tests in the world, however their work received support and encouragement from the oncoming health minister who had visited their installations as part of his interest to develop Chile's pandemic response plan, just three days before he took charge of his new position. Development of in-house testing capacity was critical for Uruguay, since the state only had 200 PCR-based diagnostic kits by early March 2020.²¹⁵ Using scientific connections within developed states, as well as the testing kit development protocols created in Hong Kong and the United States as a starting point, the scientist began working on creating a protocol that could be manufactured with locally found materials, as

²¹³ Organización Panamericana de la Salud, "Uruguay Developed COVID-19 Testing Kits Despite Adversity"; Uruguay XXI, "Uruguay Developed COVID test"; Magdalena Martínez, "Uruguay Avanza en la Fabricación de sus Propios Test de Coronavirus [Uruguay makes Progress in the Fabrication of their Own Coronavirus Tests]," EL PAÍS, April 3, 2020, <https://elpais.com/sociedad/2020-04-03/uruguay-avanza-en-la-fabricacion-de-sus-propios-test-de-coronavirus.html>.

²¹⁴ Organización Panamericana de la Salud, "Uruguay Developed COVID-19 Testing Kits Despite Adversity."

²¹⁵ Pilar Moreno et al., "An Effective COVID-19 Response in South America: The Uruguayan Conundrum," preprint (Infectious Diseases (except HIV/AIDS), July 27, 2020), 4, <https://doi.org/10.1101/2020.07.24.20161802>.

well as the technological realities of the state.²¹⁶ Their effort paid off just in time since the testing kit development finalized as the first cases of COVID-19 were observed in the country. Through these actions the government effectively increased the testing capacity to 14 test per thousand people by the end of May, and over 160 tests per thousand people by December 2020.²¹⁷

As a result of having strong welfare state capacity that did not need much tweaking to support the most vulnerable during the COVID-19 pandemic, Uruguay concentrated on establishing additional social protections that prioritized inversion in medical infrastructure, education, and created efforts to mitigate the economic impacts generated from poverty, inequality, and low economic activity.²¹⁸ In particular, data shows the government invested USD\$520 million in medical infrastructure, allocated USD\$22 million to reinforce social welfare programs like building refuge centers and increase food subsidies to the most disadvantaged, allocated USD\$50 million for the creation of flexible low interest loan programs for support of small and medium size businesses, and incremented funding to the National Development Agency who provides subsidized lines of credit to banks with the goal of sustaining the economic sector.²¹⁹ To cover these additional expenses, the government borrowed over USD\$480 million from the World Bank and the Inter-American Development Bank, as well as created a ‘Coronavirus Fund’ designed to cover all governmental expenses in connection with the national health

²¹⁶ Organización Panamericana de la Salud, “Uruguay Developed COVID-19 Testing Kits Despite Adversity.”

²¹⁷ GlobalData, “Can Uruguay Continue Its Successful Campaign Against COVID-19 Spread?,” December 2020, <https://www.pharmaceutical-technology.com/comment/covid-19-uruguay-success/>.

²¹⁸ Lucía Pittaluga and Atilio Deana, “Evidence-Based Policies in Uruguay Are Successful for Tackling COVID-19,” *Open Journal of Political Science* 11, no. 1 (December 2, 2020): 21–33, <https://doi.org/10.4236/ojps.2021.111003>; Banco de Desarrollo de América Latina, “Empoderar De Libertad Al Ciudadano Y Fortalecer Los Multilaterales, Claves Para Superar La Pandemia.”

²¹⁹ Uruguayan Government, “Medidas del Gobierno para Atender la Emergencia Sanitaria por Coronavirus (COVID-19) en Materia de Economía [Measures Adopted by the Uruguayan Government to Take Care of the Economy due to the Coronavirus (COVID-19) Sanitary Emergency],” Uruguay Presidencia, July 13, 2021, <https://www.gub.uy/presidencia/politicas-y-gestion/medidas-del-gobierno-para-atender-emergencia-sanitaria-coronavirus-covid-19-8>.

emergency.²²⁰ This fund is drawn from a progressive tax applied to salaries of public workers who make over USD\$1,800 per month as well as removing 20 percent from the salaries of ministers and legislators.²²¹

To be able to execute this plan, the government established an honorary scientific advisory group on 16 April 2020.²²² This assesses data collected by different governmental entities and provides advice to the president, who makes final decisions on what protocols would be required to be followed by the population. Evidence show that the government had followed the recommendations from the advisory group, all the way until the end of September, when the government required people to go vote for the local municipal elections that took place on 27 September 2020.²²³ Due to Uruguayan law, all individuals were required to vote, unless they could have a medical exception that would prevent them from participating. Due to the pandemic, people felt that the state should automatically create exemptions for the most vulnerable, but the government required medical certificates before exceptions could be established, causing the virus to rapidly spread, increasing cases in the country.

B. INITIAL PANDEMIC RESPONSE

Just 13 days after the inauguration of President Luis Lacalle Pou's government, Uruguay experienced the first case of COVID-19 in country. Similarly to Chile, Uruguay saw the first cases among the elites, who contracted the virus through guests who traveled

²²⁰ Inter-American Development Bank, "IDB Supports Sustainability of Uruguay's MSMEs Impacted by COVID-19 Crisis," June 24, 2020, <https://www.iadb.org/en/news/idb-supports-sustainability-uruguays-msmes-impacted-covid-19-crisis>; "World Bank Provides \$400 Million in Response to Pandemic and for Economic Recovery in Uruguay," June 25, 2020, <https://www.worldbank.org/en/news/press-release/2020/06/25/banco-mundial-pandemia-reactivacion-economica-uruguay>.

²²¹ Ferrere, "Uruguay: COVID-19 Solidarity Fund," April 2, 2020, <https://www.ferrere.com/en/news/uruguay-covid-19-solidarity-fund/>.

²²² Organización Panamericana de la Salud, "Documentos del Grupo Asesor Científico Honorario - Uruguay [Documents the Honorary Scientific Advisory Group - Uruguay]," December 2020, <https://www.paho.org/es/documentos/documentos-grupo-asesor-cientifico-honorario-uruguay>.

²²³ Radio Uruguay, "Elecciones Departamentales: Afectados Por COVID-19 Podrán Justificarse Con Certificado Médico [Municipal Elections: People Affected by COVID-19 Could Justify Absence Through Medical Certificate]," *Radio Uruguay*, September 1, 2020, <http://radiouruguay.uy/elecciones-departamentales-afectados-por-covid-19-podran-justificarse-con-certificado-medico/>.

from Europe to attend a wedding.²²⁴ Data shows that 44 of the 500 attendees contracted the virus by participating in this event around 7 March. Once the first four cases were confirmed by the Uruguayan government on 13 March, the country quickly jumped into action and executed its recently developed pandemic control plan.²²⁵ The exceptional results in response to COVID-19 observed in Uruguay make people wonder what actions worked. Hypothesis from many authors argue that maybe it was the properly timed adoption of scientific backed decisions, the positive response of the population to advocacy actions from part of the state, solidarity in the pursue of common interests, the implementation of universal healthcare, the implementation of technological solutions to aid tracking of viral contagion areas, etc.²²⁶ In this section we will see that the prompt adoption of social distancing measures, the rapid allocation of government resources into additional welfare and healthcare spending, as well as government initiatives to secure cooperation from the population, were the factors that allowed the country to control the spread of COVID-19.

The quick government action to implement their pandemic control strategy, advocate for adoption of social distancing and mask wearing protocols, as well as the quick allocation of additional resources considerably helped the control of the pandemic. Especially considering the virus could have propagated quickly after 44 cases sparked from

²²⁴ Uki Goñi, “Half of Uruguay’s Coronavirus Cases Traced to a Single Guest at a Society Party,” *The Guardian*, March 19, 2020, sec. World news, <http://www.theguardian.com/world/2020/mar/19/uruguay-coronavirus-party-guest-argentina>.

²²⁵ Uruguayan Government, “Decreto N° 93/020 Declaración de Estado de Emergencia [Decree N° 93/020 Declaration of State of Emergency]” (Uruguayan Government, March 13, 2020), <https://www.impo.com.uy/bases/decretos/93-2020>; Ministerio de Salud Pública, “COVID-19: Medidas de Prevención y Control [COVID-19: Measures for Prevention and Control]” (Uruguayan Government, March 9, 2020), https://www.gub.uy/ministerio-salud-publica/sites/ministerio-salud-publica/files/documentos/noticias/02_MSP_COVID_19_PREVENCION_Y_CONTROL.pdf; Presidencia Uruguay, “Gobierno Declaró Emergencia Sanitaria por Coronavirus y Anunció las Primeras Medidas [Government Declares Sanitary Emergency in Response for Coronavirus and Announces First Measures],” Uruguay Presidencia, March 14, 2020, <https://www.gub.uy/presidencia/comunicacion/noticias/gobierno-declaro-emergencia-sanitaria-coronavirus-anuncio-primeras-medidas>.

²²⁶ Pittaluga and Deana, “Evidence-Based Policies in Uruguay Are Successful for Tackling COVID-19.”

the wedding celebration where the first case was reported.²²⁷ Declaring a health emergency, the same day as the first cases were reported in country, President Lacalle Pou requested the partial closure of borders, mandatory quarantines for passengers arriving in country from states considered to be at risk, prohibited the arrival of cruise ships as well, suspended public events, closed bars, churches, malls and schools, set fixed prices for highly needed items and encouraged telework in private institutions while mandating it in the public sector.²²⁸

Even though the government did not impose a stay at home mandate, the president exhorted people to remain home, seek at home medical attention if they believed they were impacted by the virus.²²⁹ Throughout his speeches, President Lacalle Pou provided confidence to the population that the government would adopt measures that would sustain people safe, while also allowing them the freedom to earn resources to feed their families if they were not already insured through existing government protection structures.²³⁰ Moreover, the government communication strategy focused on providing transparent, uniform, and unpolarized information to the public, that encouraged mask wearing, social distancing and additional hygiene measures.²³¹ The president called this strategy the use of ‘Responsible Liberty’. Evidence suggests that the transparent, prompt, communication efforts increased confidence in the population that the government had their best interest in consideration adopting risk reduction measures were adopted. As President Lacalle Pou exhorted people to remain home, he also urged from them to listen to future announcements

²²⁷ Goñi, “Half of Uruguay’s Coronavirus Cases Traced to a Single Guest at a Society Party.”

²²⁸ Presidencia Uruguay, “Uruguayan Government Declares First Measures”; Uruguayan Government, “Decreto N° 93/020 Declaración de Estado de Emergencia [Decree N° 93/020 Declaration of State of Emergency].”

²²⁹ Banco de Desarrollo de América Latina, “Empoderar De Libertad Al Ciudadano Y Fortalecer Los Multilaterales, Claves Para Superar La Pandemia”; Presidencia Uruguay, “Uruguayan Government Declares First Measures”; Luisa Horwitz, “Uruguay’s Luis Lacalle Pou and His Pandemic Honeymoon,” International Business Organization, AS/COA, June 12, 2020, <https://www.as-coa.org/articles/uruguays-luis-lacalle-pou-and-his-pandemic-honeymoon>.

²³⁰ Pittaluga and Deana, “Evidence-Based Policies in Uruguay Are Successful for Tackling COVID-19.”

²³¹ Moreno et al., “An Effective Covid-19 Response in South America.”

on the characteristics and habits of the virus so they could protect themselves and others better.²³² Through the announcements, the government was able to convince elderly populations of the higher risk of contracting the virus, using transmission examples from other nations. In a similar fashion, the government exhorted for the use of masks and hygiene measures.²³³ The impact of the government messages was so great that over 75 percent of the population decided to remain home within two days of the emergency declaration.²³⁴ To further incentivize the population over 65 to stay home, the government established a fund to provide them with economic support while requiring them to stay home, as well as advocated for special shopping hours for them so they could avoid agglomerations.²³⁵ Through this fund the state provided resources to cover expenses of over 55,000 workers in the private and public sectors. Moreover, the state implemented conscientization campaigns by using police forces to disseminate messages noting the importance of social distancing and the need to self-isolate in public places such as parks, beaches, and other areas frequented by large amounts of people.²³⁶ The decreased levels of mobility in conjunction with the social distancing and hygiene measures quickly and voluntarily adopted by the population were a few of the factors that allowed the country to sustain low transmission rates.

As Uruguay began to implement its pandemic control plan, the government rapidly deployed healthcare teams to highly impacted areas to conduct testing, ensure proper isolation of individuals found to be carriers of the virus, and rapidly trace and notify close

²³² Horwitz, “Uruguay’s President Pandemic Honeymoon”; Presidencia Uruguay, “Uruguayan Government Declares First Measures.”

²³³ Ministerio de Salud Pública, “Measures for Prevention and Control.”

²³⁴ Apple Corporation, “COVID-19 - Mobility Trends Reports,” Apple, July 18, 2021, <https://www.apple.com/covid19/mobility>.

²³⁵ El Observador, “Gobierno Subsidiará a 55.000 Mayores De 65 Años Para Evitar Que Salgan a Trabajar [Government will Subsidize 55,000 Over 65 to Prevent Them from Going Out to Work],” *El Observador*, March 24, 2020, <https://www.elobservador.com.uy/nota/gobierno-subsidiara-a-55-000-mayores-de-65-anos-para-evitar-que-salgan-a-trabajar-202032420360>.

²³⁶ P Fernández and N González, “Lacalle Pou Apela a La Policía Y Exhorta a La Población a Quedarse En Sus Domicilios [Lacalle Pou Asks Police Force to Exhort Population to Stay Home],” *El País*, March 24, 2020, <https://www.elpais.com.uy/informacion/politica/lacalle-pou-apela-policia-exhorta-poblacion-quedarse-domicilios.html>.

contacts of those individuals. However, as noted earlier, during the first days of the pandemic, Uruguay did not have the capacity to conduct large amounts of testing as they were limited to being able to conduct just over 200 tests per day.²³⁷ Knowing this limitation, the government decided to conduct pool testing which allowed capacity to test up to 1000 people per day using those 200 molecular tests.²³⁸ The use of this model of testing proved to be effective given that there was a low percentage of cases during this time. This testing modality was also needed until the state was able to increase testing capacity to over 1000 tests per day, which was obtained by the end of May 2020 through a national network created using laboratories located in public hospitals, research institutes, and universities.²³⁹ The implementation of this network further improved testing capacity cutting testing time down from several days to less than one.²⁴⁰ Moreover, the state smartly used the scarce testing resources by deploying them to targeted areas such as where new cases were sparking and to border cities where there was a higher risk of viral importation.²⁴¹ Furthermore, to prevent the virus from infiltrate through border cities, the government enforced stricter protection measures on border cities by implementing over 800 checkpoints where randomized testing would be conducted starting on mid-May 2020.²⁴² It was with these innovative testing solutions, that Uruguay was able to quickly and successfully implement the required testing capacity needed to conduct their test, trace, and isolate strategy.

Seeking to incentivize for people to stay home, as well as ensure their economic protection, the Uruguayan government expanded social and healthcare protections. With regard to healthcare, the government first created a free of charge 24-hour telephone

²³⁷ Moreno et al., “An Effective Covid-19 Response in South America,” 4.

²³⁸ Moreno et al., 9.

²³⁹ Uruguayan Government, “Economic Measures Adopted to Face COVID-19.”

²⁴⁰ Luke Taylor, “Uruguay Is Winning Against COVID-19. This Is How,” *BMJ* 370 (September 18, 2020): m3575, <https://doi.org/10.1136/bmj.m3575>.

²⁴¹ Horwitz, “Uruguay’s President Pandemic Honeymoon.”

²⁴² Horwitz; Taylor, “Uruguay Is Winning Against COVID-19. This Is How.”

service, as well as mobile medical team, that people could use to seek medical attention and prevent agglomerations in emergency rooms.²⁴³ Moreover, recognizing that there was going to be a large need for disinfecting gels, the government reactivated production plants on 15 March. To incentivize mask wearing and social distancing measures, the government partnered up with the private sector to raise over USD\$6 million to purchase and distribute over 80,000 facemasks, medical and personal protection equipment, as well as prepared 20 ambulances to be used as ambulatory intensive care units allowing the state to reach areas with less medical capacity.²⁴⁴ In addition to the small healthcare improvements, Uruguay invested in additional social protections such as the allocation of USD\$22 million to build refuge centers, extend food subsidizes for the most vulnerable, as well as funded the extension of low interest credits and subsidies to aid small- and medium-sized businesses who have lost income due to low commerce. Through the establishment of these programs, the government was able to prevent agglomerations in emergency rooms since over 87 percent of the positive COVID-19 cases were diagnosed using the dispatched primary care units and was also able to ensure the most vulnerable had enough resources to self-isolate in case they were infected by the virus.

The combined strategy to use science-based policies, a strong state capacity to execute the test, trace and isolate strategy, and strong advocacy for cooperation from the Uruguayan population, allowed the Uruguayan government to control the spread of COVID-19, unlike any other place. As a result, the country never reached an exponential growth phase from March until September 2020, the timeframe used during analysis in this thesis.²⁴⁵ During this period, there were 1669 with only 45 reported deaths. Reports further show that in this period there were only four isolate outbreaks where the number of cases reached up to 40 per day.²⁴⁶ The large number of cases in those events were due to large

²⁴³ Taylor, “Uruguay Is Winning Against COVID-19. This Is How”; Horwitz, “Uruguay’s President Pandemic Honeymoon.”

²⁴⁴ Horwitz, “Uruguay’s President Pandemic Honeymoon”; Gonzalez et al., “The Coronavirus in Latin America.”

²⁴⁵ Hale et al., “Oxford COVID-19 Government Response Tracker.”

²⁴⁶ Moreno et al., “An Effective Covid-19 Response in South America,” 8.

gatherings in social events and medical care facilities that care for the elderly and mentally ill. In addition, one of those outbreaks was attributed to border crossings between Brazil and Uruguay. However, Uruguay was able to rapidly contain the outbreaks through their successful management of resources, rapid testing, and their capacity to properly identify close contacts. Moreover, the successful containment of the virus allowed Uruguay to begin reopening schools, restaurants, hotels, bars, shopping malls, and cafes as early as 9 June 2020.²⁴⁷ To allow for this reopening, the government required people to have their temperature taken upon arrival to these businesses, and to adhere to face mask and social distancing measures while visiting those businesses.

C. LONG-TERM PANDEMIC RESPONSE

Given the successful control of the viral spread Uruguay experienced in the initial stages of the pandemic, the government concentrated their long-term efforts on ensuring the most vulnerable and small/medium size businesses were properly supported to front the hurdles of prolonged business closures and lack of employment opportunities. In addition, the initial successful control of the virus allowed the government to concentrate efforts on establishing protocols to begin reopening the economy without hindering the ongoing efforts. In this section, we will review and analyze Uruguay's long-term strategy at controlling the pandemic effects and demonstrate that pandemic control plans are successful when government officials implement policies backed by scientific evidence, and when the population is able to comply with the proposed sanitary measures because of the existence and strong social protections.

1. Economic Measures

Recognizing the strengths and capacity of its welfare system, the newly instituted government concentrated efforts to ensure there were enough resources and processes to economically support the population for the length of the pandemic, as well as establishing support activities to ensure small and mid-size businesses could continue operations after the pandemic is over. To achieve these goals, the Uruguayan government first ensured it

²⁴⁷ Gonzalez et al., "The Coronavirus in Latin America."

had enough resources to fund the already existent unemployment and social protections and created legislation to provide low interest loans to small- and mid-size businesses.²⁴⁸ To ensure there were enough resources to cover the additional unemployment benefits that arose because of the pandemic, the government quickly established a progressive tax system that collects funds from the more able, who make over USD\$1,800 per month, and reduced public officials salaries by 20 percent, as noted earlier.²⁴⁹ The creation of this fund had full political support as it was unanimously approved by the Parliament. This strategy, along with loans obtained from the international community allowed the government to provide over USD\$690 million in loans to ensure liquidity of micro-, small-, and mid-size businesses as well as provide support for existing programs to provide unemployment benefits.²⁵⁰ Reports from the Economy ministry show that these loans benefited micro-businesses the most, as 55 percent of the funds disbursed went to them, while only 30 percent of the funds were loaned to small-size and 40 percent to medium size businesses. Through these measures, and the success of the control measures, the government reopened construction efforts by mid-April, government offices in early May, and shopping malls around 9 June.

The economic actions taken by the government were needed to help alleviate forecasted economy contractions of 3.7 percent, in 2020. But more importantly, they were needed to help cover the increased costs incurred by the government to provide unemployment benefits to an additional 140 thousand people (6 percent of the population).²⁵¹ Seeking to create positions for people to be able to go back to work to, and to ensure companies remained solvent, the government also encouraged local and foreign investment to generate additional employment opportunities to compensate for

²⁴⁸ El Observador, “Government Subsidizes 55,000 Workers”; Moreno et al., “An Effective Covid-19 Response in South America”; “World Bank Provides \$400 Million in Response to Pandemic and for Economic Recovery in Uruguay”; Uruguayan Government, “Economic Measures Adopted to Face COVID-19.”

²⁴⁹ Ferrere, “Uruguay: COVID-19 Solidarity Fund.”

²⁵⁰ Uruguay Ministry of Economy (@mef_Uruguay), “Loan Disbursement for COVID-19 in 2020,” Tweet, Twitter, February 8, 2021, https://twitter.com/mef_Uruguay/status/1358785424047689730.

²⁵¹ Horwitz, “Uruguay’s President Pandemic Honeymoon.”

work lost in diverse industries. To incentivize the needed large-scale venture capital, the Uruguayan government lowered tax rates on those investments.²⁵² Moreover, to incentivize businesses to reintegrate employees, the Uruguayan government contributed USD\$114 per employee to employers who reincorporated or hired new personnel between 1 July and 30 September 2020. To further aid people who lost their employment, the government created policies that either delayed loan repayment or made loan payments more flexible, for those who could not afford them. Through these initiatives, the Uruguayan government was able to receive USD\$1.6 billion in foreign investment, sustain unemployment levels at only 16 percent, while ensuring the most vulnerable had resources to remain at home without having to worry about having enough resources to buy necessities.²⁵³

The greater access to social protections and increased social equality observed in Uruguay enabled a more robust and effective response to the pandemic. The additional strengthening of those protections not only helped people remain home, but they also allowed Uruguay to reopen their economy sooner than all countries within the region.²⁵⁴ Moreover, the adopted economic measures were well received within the population and government circles since they advocated for solidarity in support of the needed, ensured people had liberties to be able to work when needed, and increased transparency on how funds were being spent.²⁵⁵ In addition, the economic measures allowed people the ability to practice self-isolation if they were found to have the virus, and minimize risk of

²⁵² Uruguayan Government, “Economic Measures Adopted to Face COVID-19”; “World Bank Provides \$400 Million in Response to Pandemic and for Economic Recovery in Uruguay”; *Ferrere*, “Uruguay: COVID-19 Solidarity Fund.”

²⁵³ Comunicación Presidencial (@compresidencia), “Uruguay Receives USD\$1,6 billion in Foreign Investment,” Tweet, Twitter, February 8, 2021, <https://twitter.com/compresidencia/status/1358792737546461186>; Horwitz, “Uruguay’s President Pandemic Honeymoon.”

²⁵⁴ Marcelo Pérez Alfaro, “Uruguay: The First Country in Latin America to Reopen Its Educational System,” *Enfoque Educación* (blog), June 2, 2020, <https://blogs.iadb.org/educacion/en/uruguayreopening/>.

²⁵⁵ Pelin Berkmen and Natasha Che, “El Secreto Del Éxito De Uruguay Contra El COVID-19 [The Secret of Uruguay’s Success Against COVID-19],” Non Governmental Organization, International Monetary Fund Blog, August 3, 2020, <https://blog-dialogoafondo.imf.org/?p=13865>.

exposure, since the population with highest risk was able to stay home while being supported by the state.

2. Control and Reopening Plan

The significant accomplishments controlling the spread of COVID-19 in the early days of the pandemic allowed Uruguay to implement long-term control and reopening plan that was successful during the time analyzed in this thesis. However, at the time of writing, cases began to rise. In this section we will analyze the actions taken by the Uruguayan government to further control and commence reopening the economy during the analyzed time, but also will quickly review possible causes that explain the rising number of cases observed starting from October 2020.

Looking at the actions taken by the Uruguayan government as part of their long-term pandemic control and reopening plan, we appreciate that the successful implementation of their initial control measures paid long term fruits. First it was noted that the government's rapid response, innovative testing solutions, as well as their strong institutions, allowed Uruguay's control strategy to work smoothly.²⁵⁶ As part of the long-term control plan, the government would quickly deploy the pandemic control teams to areas where cases were seen, as well as enforced stricter protection measures on border cities. This strategy was needed because border cities were at a higher risk of importing new cases from countries like Brazil and Argentina who had significantly larger amounts of cases than Uruguay. To reduce contagion risk on border cities, the Uruguayan government implemented 800 checkpoints, beginning in the month of May, where people would be randomly tested for COVID-19.²⁵⁷

These campaigns were extremely successful since the government was able to sustain the number of new daily cases extremely low, and sometimes even reported no new

²⁵⁶ Horwitz, "Uruguay's President Pandemic Honeymoon."

²⁵⁷ Presidencia Uruguay, "COVID-19 en Rivera: Gobierno Presentó Medidas Especiales [COVID-19 in Rivera: Government Implemented Special Measures]," Government, Uruguay Presidencia, May 25, 2020, <https://www.gub.uy/presidencia/comunicacion/noticias/covid-19-rivera-gobierno-presento-medidas-especiales>; Berkmen and Che, "The Secret of Uruguay's Success against COVID-19"; Taylor, "Uruguay Is Winning Against COVID-19. This Is How"; Horwitz, "Uruguay's President Pandemic Honeymoon."

cases.²⁵⁸ To ensure the early success could be extended during the pandemic, the government created an advisory group, comprised of 46 experts within different areas of government, and health. This advisory team was led by the Director of Planning and Budget Isaas Alfie, who would then advise the government on exit strategies for a gradual removal of control measures. It was through the advice of this group that the Uruguayan became the first country to reopen schools through a three-phase school reopening plan that aimed at getting all students back in the classroom.²⁵⁹ The first school reopening measures were approved as early as 17 April 2020, allowing rural schools to start reopening as early as 22 April 2020. The success and lessons learned from the rural reopening allowed the government to start reopening schools in urban areas starting on 1 June 2020. The reopening of schools was phased so that the government could quickly act, and either suspend or modify school practices in the case of additional outbreaks. The data collected from the rural school reopening also allowed the government to create policy for the safe opening of some businesses, and shopping malls around 9 June 2020.²⁶⁰ The reopening of businesses was also monitored closely and as a result, areas where higher risk of contagion were observed were asked to close or remain closed during these early stages. Data showing contagion shows that the reopening strategies implemented in Uruguay were successful since incidence of new cases remained at the same low levels as it was in previous months.²⁶¹ Finally, on 29 June the government published guidelines to be able to reopen hotels, bars, restaurants, and cafes.²⁶² This guidance requested enforcement of social distancing, mask wearing, and temperature control measures which also proved effective at ensuring and sustaining low transmission rates.

²⁵⁸ Hale et al., “Oxford COVID-19 Government Response Tracker.”

²⁵⁹ Pérez Alfaro, “Uruguay”; Anahí Alarcón, Dario Fuletti, and Julia Perez, “Early Opening of Schools in Uruguay During the COVID-19 Pandemic. Overview and Lessons Learnt,” *United Nations Children’s Fund*, September 2020, 58.

²⁶⁰ Horwitz, “Uruguay’s President Pandemic Honeymoon”; Pérez Alfaro, “Uruguay.”

²⁶¹ Hale et al., “Oxford COVID-19 Government Response Tracker.”

²⁶² Horwitz, “Uruguay’s President Pandemic Honeymoon”; Hale et al., “Oxford COVID-19 Government Response Tracker.”

The success of the reopening plan was also reinforced by additional measures adopted to control viral spread and reinforce the existing healthcare system. To help control the viral spread, the government raised over USD\$6 million through diverse campaigns which allowed the purchase and dissemination of 80,000 facemasks, medical and protection equipment items that were made available to the population, as well as the establishment of 20 ambulances capable of providing intensive care so that there was reach to areas with lower medical capacity.²⁶³ Moreover, to reinforce access to care for the elderly, the Health Ministry established a cooperation agreement between state and private health providers so that people would be provided medical care, regardless of what type of health insurance they might have.²⁶⁴ Through this two additional actions, the government ensured the more disadvantaged and at higher risk were going to receive proper protective equipment and have access to adequate medical care.

The policies adopted to reopen the economy were well executed, and as a result, the government was able to either increase, change, or modify control measures based on their already established risk strategy, or with slight changes that were driven by new scientific findings. During the time analyzed, it was noted that the government changed reopening policies on two situations. One being the need to control rapid viral spread caused by parties hosted in private residences, while the second one being control of viral spread caused by increased mobility in public transportation.²⁶⁵ To control these situations, the government announced on 21 July that they would not revert the reopening policies already implemented, but rather would just ban private house parties, and increase circulation of public transportation while restricting the occupancy levels of buses. However, the restriction on transportation occupancy created a significant burden on bus

²⁶³ Horwitz, “Uruguay’s President Pandemic Honeymoon.”

²⁶⁴ Ministerio de Salud Pública, Uruguay, “Acuerdo Histórico Entre MSP, FEPREMI y ASSE Para la Atención en los Residenciales [Historic Accord Between MSP, FEPREMI, and ASSE to Provide in Residence Care],” Ministerio de Salud Pública, May 15, 2020, <https://www.gub.uy/ministerio-salud-publica/comunicacion/noticias/acuerdo-historico-entre-msp-fepremi-asse-para-atencion-residenciales>.

²⁶⁵ Uruguay Presidencia, “Lacalle Pou: Prevención, Reacción y Control Ante Brotes de COVID-19 [Lacalle Pou: Prevention, Reaction and Control due to Increase in COVID-19],” Government, Uruguay Presidencia, July 21, 2020, <https://www.gub.uy/presidencia/comunicacion/noticias/lacalle-pou-prevencion-reaccion-control-ante-brotes-covid-19>.

operators who would work at a loss due to these measures. As a result, the government implemented subsidies to this sector to compensate for those losses.²⁶⁶ Through these actions and new adopted measures, Uruguay's pandemic control plan became the example to follow, not only in Latin America, but around the world, as evidence showed the implemented plan was more effective than other successful nations such as Israel, Japan, and Sweden.²⁶⁷

However, the Uruguayan government's desire to return to more normalized activities, conduct scheduled elections, and continue reopening to global trade and tourism without wanting to increase governmental imposed restrictions caused cases to begin to rise around September 2020. Evidence shows that as the government continued opening the economy, it began to adopt policies that opposed advised from the scientific community who were advocating for continuation of the already implemented control measures. Two of those cases were the conducting of municipal elections, and the removal of travel restrictions to European states.²⁶⁸

In the case of the municipal elections, people were mandated to vote, unless they could demonstrate through a doctor's note that they should not be present at the precincts because of either having COVID, or by having a medical condition that would prevent their participation.²⁶⁹ The mandatory requirement to vote on this election jeopardized people as they were not able to remain home, as previously requested. The conglomerations in

²⁶⁶ Agustín Fernández, "Medidas De La Intendencia Que Minimizaron Posibilidades De Contagios De COVID-19 En Ómnibus [Government Measures that Minimized Possibility of COVID-19 Contagion on Busses]," Government, Intendencia de Montevideo., June 25, 2021, <https://montevideo.gub.uy/noticias/movilidad-y-transporte/medidas-de-la-intendencia-que-minimizaron-posibilidades-de-contagios-de-covid-19-en-omnibus>.

²⁶⁷ Bob Spire, "How Other Countries Reopened Schools During the Pandemic – and What the U.S. Can Learn from Them," *The Conversation*, June 22, 2020, <http://theconversation.com/how-other-countries-reopened-schools-during-the-pandemic-and-what-the-us-can-learn-from-them-142706>.

²⁶⁸ Radio Uruguay, "Elecciones Departamentales"; GlobalData, "Can Uruguay Continue Successful Campaign Against COVID?"

²⁶⁹ Uruguay Presidencia, "Prevention, Reaction and Control of COVID-19."

electoral rescinds caused a small spark in COVID cases, as attributed by the scientific community.²⁷⁰

In addition to this isolated event, Uruguay registered an increase of COVID cases because of the re-opening of borders to European tourism. Due to the low number of cases seen in Uruguay, people from low-risk countries were allowed to enter Uruguay as early as 16 July 2020, as long as they were able to prove through a negative COVID test that they were not infected.²⁷¹ The low number of cases sustained until early October gave the government the impression that they could open their economy to European tourism claiming that they should grant reciprocity to those states since they allow Uruguayans to travel there. However, the ministry of tourism's advocacy for this policy, that began in August, failed to acknowledge that during this time, COVID cases in Europe were in the rise, thus the risk of importation increased.²⁷² As cases increased in Uruguay, the government began to ask travelers who would stay in the country for longer than four days to take a second COVID-19 test upon arrival, thus providing an small decrease on risk to the population.²⁷³ Despite the precautions, COVID cases began to rise significantly towards the end of October and beginning of November 2020. Some reports attribute this increase in COVID cases to the relaxing of border restrictions, as well as the increased mobility observed within the country that was created by people taking summer vacations.²⁷⁴ As a result of the rise in COVID cases, the Uruguayan government decided to reinforce existing health protocols by adding a mandatory seven-day isolation period for incoming international travelers, closing government offices, and deploying inspectors to

²⁷⁰ Silvia Viñas et al., "Uruguay: La Trampa De La 'Libertad Responsable' [Uruguay: The 'Responsible Liberty' Trap]," Podcast, *El Hilo* (blog), May 21, 2021, <https://elhilo.audio/podcast/uruguay-covid/>.

²⁷¹ Horwitz, "Uruguay's President Pandemic Honeymoon."

²⁷² Horwitz.

²⁷³ Gonzalez et al., "The Coronavirus in Latin America."

²⁷⁴ Viñas et al., "The 'Responsible Liberty' Trap."

monitor compliance with existing health guidance in businesses such as restaurants, supermarkets, offices, and shopping centers.²⁷⁵

Despite the additional actions being taken, cases continued to rise during the month of November and December 2020. Authors attribute the increase to the government deciding to keep bars, churches and other large venues open while only suspending classes, closing public offices, and prohibiting social parties at home.²⁷⁶ These authors believe that the government's refusal to mandate quarantines, or implement measures that would reduce social mobility, were to blame for the increase of cases as they believe higher governmental intervention was needed. However, the government continued to advocate for people to follow 'responsible liberty' measures, and lost control of the pandemic as the government was not able to scale up their strategy to conduct testing and contact tracing. The government's inability to scale up its control strategy is attributed to the lack of capacity to quickly train additional personnel in the established processes, as well as the rapid propagation of the virus caused by the high mobility of the population observed during the summer months.²⁷⁷ It was reported that the inability to scale up was caused mainly by the scarcity of personnel, and resources that the state did not have, even though Uruguay is catalogues as a strong, wealthy, country.

D. CONCLUSION

In this chapter we observed many factors that contributed to Uruguay's successful containment of COVID-19 during the months of March to October 2020, and slightly touched on issues observed with their strategy, which caused the country to experience an increase in the number of daily cases as mobility of the population increased. In particular, we noticed that factors which helped Uruguay to control the pandemic were the quick action of the newly elected government officials, who immediately put in practice a test

²⁷⁵ Gonzalez et al., "The Coronavirus in Latin America."

²⁷⁶ Viñas et al., "The 'Responsible Liberty' Trap"; Quique Kirszenbaum and Peter Beaumont, "Uruguay Accused of Squandering Early Covid Success Amid Deadly Surge," *The Guardian*, June 24, 2021, sec. World news, <http://www.theguardian.com/world/2021/jun/24/uruguay-covid-coronavirus-surge>.

²⁷⁷ Viñas et al., "The 'Responsible Liberty' Trap."

trace, and isolate strategy that was devised in cooperation with scientist of diverse universities and research centers as soon as the first case of COVID-19 was observed in country, just a few days after their inauguration. The capacity to rapidly implement this science-based strategy, allowed the state to ensure the emergence of new cases were quickly controlled. However, Uruguay's strategy would not had been possible to implement if the state would not had developed the capacity to conduct testing with locally sourced materials, or if the state would not have had a robust welfare system that allowed its population to adhere to the government established policies. Through these actions, the government effectively controlled the rapid spread of COVID-19 among its population.

The effectiveness of Uruguay's pandemic control plan was aided by the rapid adoption of social distancing, hygiene, and mask wearing policies that were encouraged to be followed by the public, rather than being mandated; as well as the adoption of innovative testing strategies that allowed the state to work around the scarce testing capacity experienced during the first days of the pandemic.

The combined strategy to use scientific evidence, public advocacy asking for citizenry cooperation, and the strong welfare protections that allowed citizens the ability to follow the implemented control policies, were critical to effectively control the advancement of COVID-19 in Uruguay. To ensure the public would follow pandemic control policies, the government resorted to exhort confidence in their plan by delivering prompt, unified, and transparent information about the risks and measures that should be adopted to ensure public safety. Moreover, the government increased funding to existing social protections, which further encouraged people and industry to voluntarily adopt the enacted sanitary measures. This strategy proved to be effective and granted significant benefits as people were eager to follow government guidance to wear masks, decrease mobility, and increase hand washing and disinfecting practices. The impacts of these actions were significant since reports showed that 70 percent of the population decided to remain home within two days of the government declaring a state of emergency and requesting people to stay home. All this was done voluntarily, without the need to use police or military forces to control movement.

The ability for the population to adhere to the implemented measures was bolstered by the robust social and healthcare protections that had been implemented in Uruguay throughout the last ten years. In particular, we noted that contrary to Chile, Uruguay did not have to develop new social protections to safeguard its citizens since formal and informal workers already had access to unemployment benefits and medical care, regardless of their economic status. Rather, in response to COVID-19, the government reinforced existing protections with additional funding destined to sustain the most vulnerable during an extended amount of time. The additional funding injected into existing social protections ensured the most vulnerable were able to self-isolate without having to worry about having resources to feed their families as they lost income.

However, to ensure the virus was contained, collaboration of the public alone was not sufficient, as the government needed to ensure they could rapidly and accurately test large percentages of the population to minimize spread of known viral cases. Since the Uruguayan government did not have the capacity to conduct the expected number of testing that they thought would be required to control the pandemic, the government resorted to conduct pool testing. The implementation of this testing strategy proved to be effective as Uruguay was able to sustain low transmission rates until the government was able to increase capacity to test through the development of their own testing kits. As a result of the innovative increased testing capacity the government was able to proactively determine higher risk areas, and rapidly allocated the necessary resources and medical teams to successfully control the viral spread.

Needing to reinforce its social welfare system, the Uruguayan government borrowed funds from international banks as well as raised funds through increased taxation on public officials and high-income earners, actions that was well received within the population and political sectors as there was consensus achieved through transparency and the adoption of science-based policies. The collected funds not only helped cover the existing programs, but also allowed the government the ability to extend low interest loans to critical economic sectors, such as micro, small, and mid-size businesses. Through these actions, the government reinforced the economic apparatus, minimizing the economic impact caused by the pandemic on these sectors, as well as incentivized businesses to retain

or rehire employees as the economy re-opened. The adoption of these measures allowed Uruguay to begin reopening, while most economic activities were restricted around the world, demonstrating the implemented social protections aided in controlling the spread of COVID-19. However, the adoption of these economic and protection measures was only viable because government officials, and the population supported these actions, and without that support, Uruguay might have had a different fate.

The success of Uruguay's pandemic response allowed government officials to concentrate efforts on creating a robust reopening plan that allowed kids to go back to school, and the economy to start reopening, while other countries were still using lockdowns to control the pandemic. In efforts to determine procedures to reopen schools in more populated areas and decrease issues of rural students not being able to attend school due to their lack of technological access, the government began their efforts to reopen schools in rural areas. This decision was primarily driven by the low risk of viral transmission seen in rural areas where people live further apart from one another. Through this process, the Uruguayan government devised a phased approach that allowed the reopening of schools by the end of May 2020, making Uruguay one of the very few countries in the world that was able to successfully reopen schools. The lessons learned through the school re-openings provided the government with adequate knowledge to reactivate the economy. Through this plan, Uruguay slowly reactivated shopping centers and areas of high congregation, while requesting people to follow social distancing, hygiene, and mask wearing protocols established at the beginning of the pandemic. The effectiveness of the reopening plan was also aided by the voluntary adoption of the recommended temperature control, mask wearing, and social distancing protocols, by both the population and businesses. Measures that proved effective at slowing down the spread of COVID-19. However, the large improvements on reopening the economy were opaqued by the government desire to increase economic activity, which unfortunately increased population mobility and the ability for the virus to enter the country due to the relaxation of travel protocols. As a result of the increased mobility, the Uruguayan government lost the successful control of the pandemic as cases began to rise significantly around November 2020, marking the end of the success experienced in the previous months.

IV. ANALYSIS AND CONCLUSION

The emergence of the coronavirus disease in 2019 changed everyone's lives, as the virus quickly spread all over the world. When the virus arrived in Latin America, it spread at a more rapid rate than in other regions; despite governments implementing very restrictive control measures. As a result, Latin America became the epicenter of the pandemic in just three short months. Why did Latin American states fail to control the rapid spread of COVID-19?

This thesis sought to understand the underlying causes of the rapid viral spread across the region. Seeking to address this question, I hypothesized that potential causes to the rapid viral spread of COVID-19 in the region could be attributed to a lack of government preparedness, use of inappropriate control policies that were either backed by science or political interests, slow reaction speed of governments, a lack of state capacity to employ control policies, or the strength of the state's welfare system and the population's ability to access it.

To determine the cause of the rapid spread of COVID-19, I chose to analyze the responses of Uruguay and Chile, two countries that despite having similar economies, government policies, quality of medical care, and state capacity, faced different fates with their response plans. Through their selection, I sought to isolate for perceived differences in government capacity between diverse states in Latin America.

To determine how the diverse measures adopted by each state positively or negatively affected their COVID-19 response I studied and analyzed their pandemic control and response plans, as well as reviewed and evaluated their welfare state and medical response capacity, welfare spending, inequalities within the population, and last, I reviewed the effectiveness of the measures adopted in efforts to control the spread of COVID-19. These analyses were conducted with the objective of establishing the role of leadership, welfare state capacity, and inequality in shaping the outcomes of each state's response.

Through my analysis, I found that a critical factor that allowed Uruguay to be successful at controlling the spread of COVID-19 during the initial months of the pandemic, was the strength and accessibility of their social welfare system. Uruguay's strong welfare system allowed people to remain home and isolate without having to worry about their ability to feed and shelter their families. My research also showed that Chile was not able to contain the spread of the pandemic during this same time frame due to the inability of the Chilean government to employ measures that could control population movement into and out of quarantined areas. The inability of the Chilean government to control population movement is attributed to two factors. The first one being the lack of government programs that would have allowed the large number of informal workers to remain home. The second one being the disconnection of Chilean government officials from the economic and healthcare realities of Chile.

As a result, I conclude that states with strong and egalitarian healthcare and economic support systems (welfare systems) have a higher success rate at controlling the initial onsets of a pandemic such as the one caused by COVID-19. On the other hand, states with strong welfare systems, and significant levels of unequal access to the welfare system, are more vulnerable to the effects of pandemics. Moreover, states with weak welfare systems are not capable of controlling the spread of COVID-19, regardless of how equal access to those welfare systems is. As a result, the ineffectiveness of Latin American governments to control the spread of COVID-19 could be attributed to the low economic capacity to tend to the financial and health needs of the population in a region where high informal employment is the norm. The population in highly informal communities ignored social distancing and stay home requirements as people took to the streets to make a living.

The analysis of the adopted policies used to combat COVID-19 in Latin America help us identify areas of improvement and limitations in governance, policy, and state capacity. The understanding of these limitations provides us with the opportunity to improve future responses, as well as the ability to shape development of future United States' policies and programs that affect regional humanitarian assistance, national security, and economic postures.

A. CONTROL AND RESPONSE ANALYSIS AND FINDINGS

Reviewing and analyzing the control and response plans and actions of both states, we observed that both Chile and Uruguay followed WHO's guidelines and adopted a strategy that sought to find active cases through *testing*, *tracing* of close contacts to those active cases, and *isolating* those active and potential cases with the goal of preventing further spread of COVID-19.

Through my research, I identified significant gaps in Chile's plan that prevented the state from being prepared to implement their proposed strategy. These gaps were 1) the inability of government officials to properly identify and allocate resources and manpower needed to combat and contain the spread of COVID-19, 2) improperly funded and executed contracts to acquire medical supplies and ventilators needed for critical care of patients, 3) lack of COVID-19 testing capacity required to implement an ambitious control plan and 4) the creation of a plan that lacked considerations for the economic and inequality realities of the country. The flaws observed within Chile's plan were primarily attributed to the health minister's over-reliance on a perceived strong welfare and medical system, and his unawareness of the economic realities of the population, combined with unawareness of how unequal medical access is in the country.

On the other hand, it was observed that Uruguay was successful because of its ability to overcome pandemic generated challenges, and because of their robust, more equal, healthcare and welfare system that enabled people to follow the pandemic control guidelines established by the government. While Uruguay had low testing capacity during the initial months of the pandemic, it was the creative thinking of key leaders that facilitated their ability to test larger amounts of the population. Through this creative thinking, Uruguay conducted pool testing in low-risk areas, significantly expanding the capacity to test large pockets of the population. Moreover, Uruguay developed their own testing kits, further expanding their capacity to respond when the world experienced challenges accessing testing kits. And lastly, leaders decided to conduct more testing in areas that were perceived to be critical (like at border crossings), and through these actions decrease the risk that the virus would quickly spread into large, populated areas.

My research also showed that each state took different approaches to controlling the pandemic during the initial stages of the outburst. On one hand, the Chilean government favored the use of policies that sought to sustain the economy open, by allowing the people to remain somewhat mobile, as long as they did not live in an area required to quarantine. This desire to sustain the economy open, combined with the large informal sector needs to work, made people remain on the streets, transmitting the virus all over the country. It was not until Chile implemented very restrictive measures that required the use of law enforcement to impose fines, or even arrest violators of mandatory quarantine measures that the government was able to curve the increase of COVID-19 cases. This is something that was not seen in Uruguay, where people were observed to voluntarily follow government directions because the social protections existent in the country allowed for both formal and informal workers to remain home without having to worry about losing income.

As a result of the observations conducted in the thesis, we can conclude that Uruguay had a better pandemic control plan since it considered scientific data to maximize the use of the small number of resources the country had available during the initial stages of the pandemic. The effectiveness of Uruguay's plan was also aided by the existence of a robust welfare system that enabled the population to adhere to the restriction of movement measures implemented by the government; something that Chile could not implement due to the limitations of their social welfare system that does not provide protections to informal workers and because it has unequal access to medical care for low-income workers. The combination of strong welfare policies and the increase of social protections were key in controlling the spread of COVID-19 in Uruguay since they enabled people to self-isolate and prevent increased transmission of COVID-19.

My research also revealed that the effectiveness of the control plans in both states was positively impacted by the use of scientific data to establish control, mitigation, and reopening policies; the establishment or increase of social protections to help support the population during loss of work; and the early implementation and enforcement of self-isolation, social distancing, mask wearing and increased hygiene protocols.

B. WELFARE AND MEDICAL RESPONSE CAPACITY ANALYSIS AND FINDINGS

Comparing the welfare and medical capacity of Chile and Uruguay it was found that, theoretically speaking, both states have strong medical and welfare capacity that would enable them to provide medical care and economic protections to almost the entirety of their populations. However, I found that Chile's medical care system is plagued with inequalities that limit access to the most vulnerable who either have low-income or live in rural areas. Moreover, Chile's informal workers are not able to access unemployment benefits because legislation prevents contribution to Chile's social protection systems, forcing them to sustain employment to make a living, during these challenging times.

Reviewing the case of Chile, a significant contradiction between Chile's significant capacity to provide healthcare and economic support for its most vulnerable was noticed. In particular, it was observed that while virtually all the Chilean population has access to medical care, the current system segregates large portions of the population who are characterized by being low-income earners that predominantly work in the informal sector. As a result, these people had limited or significantly delayed access to medical care, critical care, and life support equipment, especially during national emergencies. Delays in medical care were also experienced in Chile because of inadequate access to care in rural areas. People who lived in these areas and became critically ill had to be evacuated to other regions to receive care. The limited access to medical care of these population caused these groups to have the highest mortality rate from COVID-19 in Chile.

Informal workers in Chile not only do not have access to medical care, but they also are not eligible to receive unemployment benefits from the government as current statutes prevent them from contributing to social insurance policies. Reports and surveys accessed during my research showed that over 60 percent of Chile's population receives an income lower than the average national salary of \$573,964 pesos (USD\$811.60), and that 50 percent have income just barely over the minimum salary of \$320,500 pesos (USD\$453.32), showing that most people in Chile do not have the economic security to weather down prolonged times of unemployment. These results demonstrated that the socio-economic inequalities seen in Chile increased the risk of viral contagion among the

most vulnerable populations. Their suffering was increased by their inability to gain a reasonable income, have access to web-based schools, and the high mortality rate experienced within these groups.

The economic measures adopted by the Chilean government to alleviate the economic impact of the pandemic were not enough or impactful because they did not provide benefits that would have allowed the population to follow the governments' strict guidelines. To alleviate the challenges from the inadequate welfare system in Chile, the government designated USD\$12B to help the most vulnerable cope with the economic difficulties. These funds were primarily used to sustain liquidity of the private sector while only being able to provide a onetime cash bonus of USD\$60 to 2 million informal workers. My research showed this program was a failure as it did not grant people the ability to remain home and follow government issued isolation guidelines. The low amounts of funding received by Chileans—sometimes as low as USD\$34 per month—forced people to avoid getting tested just so they could continue working and feeding their families. As a result, it was shown that over 65 percent of Chile's population did not have enough resources to cover their basic needs during the pandemic. It is forecasted that the economic impacts would continue to increase as tourism, retail, trade, construction, and transportation industries continue to be impacted by restrictive measures.

In the case of Uruguay, I showed that the government was successful at containing the spread of COVID-19 from March until October 2020 due to the use of science-based, innovative approaches, that were successful due to the strength of Uruguay's welfare and medical systems. Uruguay's already established institutions were the ones that allowed the state to be able to control the pandemic. This was because people were able to access healthcare and unemployment insurance through a prolonged amount of time thanks to the solidarity of the population who supported increasing government taxation. The increased government taxes were levied on public officials and high-income earners as a method to offset the additional costs incurred from pandemic spending to pay for loans and long amounts of time of unemployment benefits. Uruguay's plan, however also benefited by the state's ability to sustain access to employment opportunities due to their ability to promote remote work. Moreover, the additional investment from the country in additional social

welfare programs allowed workers over 65 years of age to isolate since they were not required to work, allowing the country to decrease risk among one of the most vulnerable populations.

C. FINDINGS

My research demonstrated that in Latin America, states that have a higher probability at containing the spread of an upper respiratory pandemic, such as the one caused by COVID-19, are states who have equalitarian, healthcare, and economic support systems (welfare systems). This is because these systems enable the population to decrease mobility as well as follow social distancing and increased hygiene measures during the pandemic, steps that are critical to controlling rapid spreads of viruses during initial onsets. On the other hand, states with strong welfare systems and significant levels of unequal access to the welfare system are more vulnerable to the effects of pandemics. This is because the unequal access to social protections and medical care forces people to seek alternatives to subsist. Moreover, states with weak welfare systems are not capable of controlling the spread of COVID-19, regardless of how equal access to those welfare systems is. As a result, the ineffectiveness of Latin American governments to control the spread of COVID-19 could be attributed to the low economic capacity to tend to the financial and health needs of the population in a region where high informal employment is the norm.

The population in highly informal communities ignored social distancing and stay-home requirements as people took to the streets to make a living. Having a strong welfare/healthcare system that is universal in access helps control the spread of the virus since people are less concerned about being able to pay for treatments or food. The Uruguayan government created capacity to get doctors to visit potential sick COVID cases at home, thus decreasing exposure to people traveling in public transportation.

During the length of the COVID-19 pandemic, it was observed that decrease on mobility, enforcement of mask wearing, and social distancing measures were critical to contain the spread of COVID-19. It was also observed that patterns of inequalities within the countries' welfare states impacted their response effectiveness and, in particular, the

active number of COVID-19 cases, as well as the number of fatalities. In addition, to preventing economic collapses, governments benefited from establishing additional subsidies for industry, small businesses, and transportation sectors to prevent collapse due to their low utilization. These actions also expedited economic recovery.

In this research we also showed that pandemics would hit Latin American states hard because of the region's weak welfare and medical capacity systems that do not reach the most vulnerable. While Chile was forced to create new programs to help cover the inequalities in the country, Uruguay just strengthened existing social welfare programs by increasing funding. Thus, this research further demonstrates that the employment of universalistic and inclusive models improves survivability of low-income groups and decreases vulnerabilities of informal sectors.

D. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

This paper is limited by the reliability of information being reported by each state on the number of COVID-19 infections, as well as deaths related to the same. The reliability of data could be impacted by the diverse methods states use to account for active cases, and deaths attributed to COVID-19. Some countries might attribute all deaths to COVID-19, while others might only count deaths that return a positive test result for COVID-19.

Considering that this research focused on isolating state capacity as a control variable, it is recommended to further research the measures adopted by states with low state capacity to determine alternative methods to limit the impacts of COVID-19 in challenged societies. This research would be of importance as it enables the U.S. government to better prepare relief policies and humanitarian aid packages that would enhance its regional posture, and prevent societal challenges that force population migration to the U.S.

Future research should also address the economic challenges that the pandemic has generated and propose innovative solutions that could improve economic recovery in the impoverished countries within the region, thus decreasing desires to migrate to the U.S..

E. KEY POLICY IMPLICATIONS

The analysis of the adopted policies used to combat COVID-19 in Latin America help us identify areas of improvement and limitations in areas such as governance, policy, and state capacity. The understanding of these limitations provides us with the opportunity to improve future responses, as well as the ability to shape development of future United States' policies and programs that affect regional humanitarian assistance, national security, and economic postures.

Reports on the degree of preparedness of Latin America showed that gaps remained in the “organization of health care services’ response; planning and maintenance of essential services; and the provision of containment measures such as the stockpiling of medical supplies.”²⁷⁸ This was a problem for Chile since they did not have medical supplies or ventilators readily available to be able to help people in the ICUs as the virus spread too quickly. The country continuously increased capacity, in desperation, throughout the months of April through June, to be able to cover the expected demand of ventilators. As Chile was able to figure out how many cases they were going to expect, and rather were not able to increase their capacity on time, nor did the minister of health recognize the economic disparities and lack of infrastructure, shows that Chile was not prepared politically (through leadership), or with the proper capacity to face the pandemic. If a strong state like Chile was not able to prepare, it leads us to believe that the U.S. government should invest in institutional capacity building programs that would enable the development of novel, low cost, and more synchronized response plans that would enable multilateral cooperation among Latin American states.

The economic and political actions each state has taken to combat the spread of COVID-19 will have an impact on economic, employment, and migratory trends within the region. The United Nations has forecasted that the regional unemployment rate will reach 13.5%, while the poverty and extreme poverty rates are expected to increase to 37.2% and 15.5% respectively.²⁷⁹ This means that there will be an additional 28 million people

²⁷⁸ Mensua, Mounier-Jack, and Coker, “Pandemic Influenza Preparedness in Latin America.”

²⁷⁹ United Nations Sustainable Development Group, “Impact of COVID-19 on Latin America,” 12.

living in extreme poverty in the region.²⁸⁰ As the economy contractions in the region surpassed 6 percent, in 2020, it is expected that the U.S. will start to see large amounts of migrants showing up to the Southern Border as travel restrictions ease.²⁸¹

Historically, moments of economic decline in Latin America have generated conditions for significant political instability and driven migration flows. The current pandemic is poised to affect these countries' economic and social conditions for years to come and may trigger significant social and political transformations. Understanding the conditions at the root of these different responses is of interest to the U.S. government as it seeks to promote stability across the region, sustain its influence, and prevent increased dependence of Latin American countries on outside forces. To alleviate the economic and supply challenges observed in the region, as well as address the root causes of migration, it is recommended that the U.S. continues working initiatives that address corruption and foment investment in the region. Latin American governments are lacking necessary foreign investment needed to overcome the economic challenges created by the pandemic.

Prior to COVID-19, Latin America already faced numerous security challenges due to drug violence and a refugee crisis originated from Venezuela's economic downturn. The actions taken by some states to decrease the spread of COVID-19 have further challenged their state readiness to be able to effectively enforce the rule of law while simultaneously continue respecting human and privacy rights in the region. Understanding the actions taken by governments in the region help understand security deficiencies generated from the additional stress on security institution's manpower that was required to enforce lockdowns and the effect the re-organization of manpower had on combating organized crime. Understanding these trends offers an opportunity for the U.S. to re-evaluate security cooperation investments in the region, which in turn would improve U.S.' capacity to respond to security threats.

²⁸⁰ United Nations Sustainable Development Group, 12.

²⁸¹ World Bank, "The World Bank in Latin America and the Caribbean," World Bank, March 31, 2021, <https://www.worldbank.org/en/region/lac/overview>.

APPENDIX. CHILE VERSUS URUGUAY COVID-19 DATA COMPARISONS

Images below show a 7-day rolling average comparing new confirmed COVID-19 cases, number of deaths, case fatality rates, number of tests administered, positivity rate, and stringency index measurements for Uruguay and Chile. Data from in the charts was obtained from John Hopkins University Center for Systems Science and Engineering and displayed through the website “Our World in Data.”²⁸²

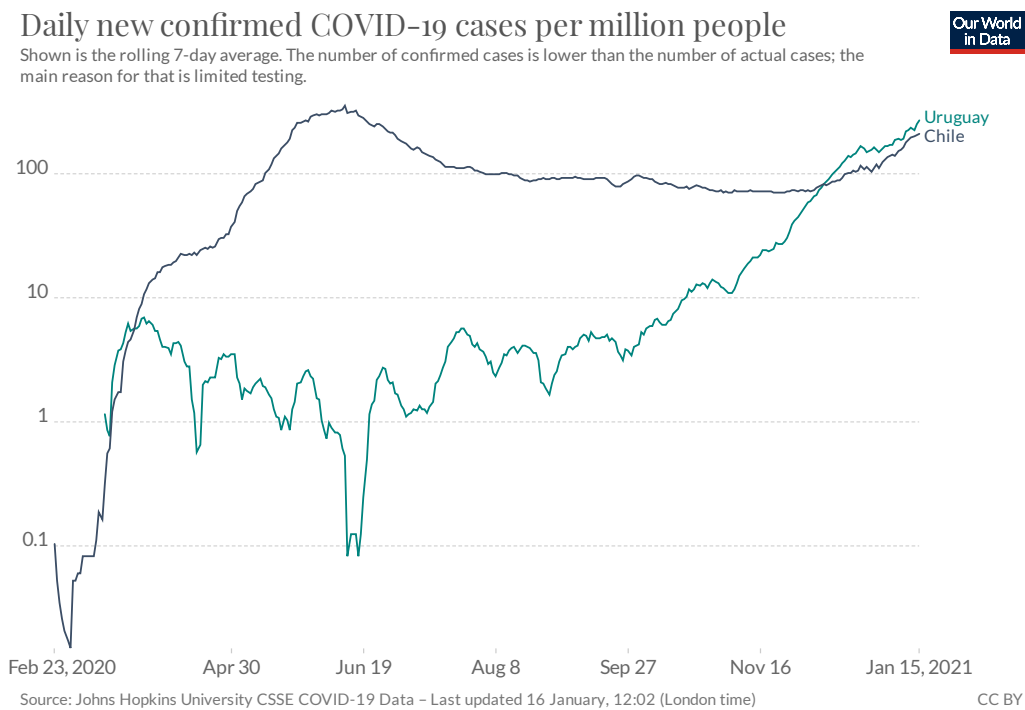


Image shows the 7-day rolling average of new confirmed COVID-19 in a logarithmic scale. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 9. Daily new confirmed COVID-19 cases per million people.²⁸³

²⁸² Source: “Coronavirus Pandemic Data Explorer.”

²⁸³ Source: “Coronavirus Pandemic Data Explorer.”

Daily new confirmed COVID-19 deaths per million people

Shown is the rolling 7-day average. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

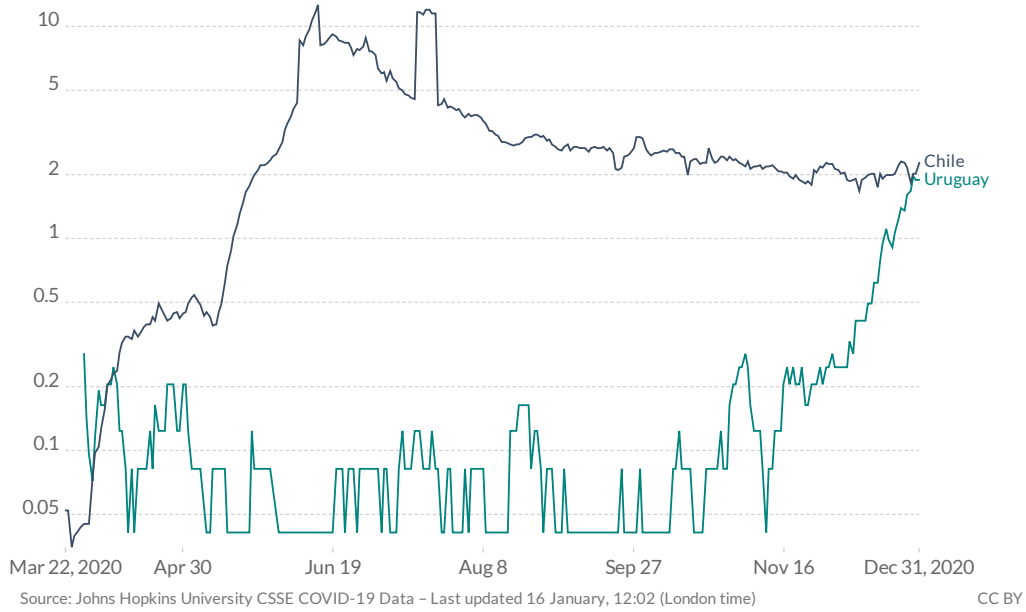


Image shows the 7-day rolling average of new confirmed COVID-19 deaths in Chile and Uruguay, in a logarithmic scale. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 10. Daily COVID-19 deaths per million people.²⁸⁴

²⁸⁴ Source: "Coronavirus Pandemic Data Explorer."

Case fatality rate of the ongoing COVID-19 pandemic



The Case Fatality Rate (CFR) is the ratio between confirmed deaths and confirmed cases. During an outbreak of a pandemic the CFR is a poor measure of the mortality risk of the disease. We explain this in detail at OurWorldInData.org/Coronavirus

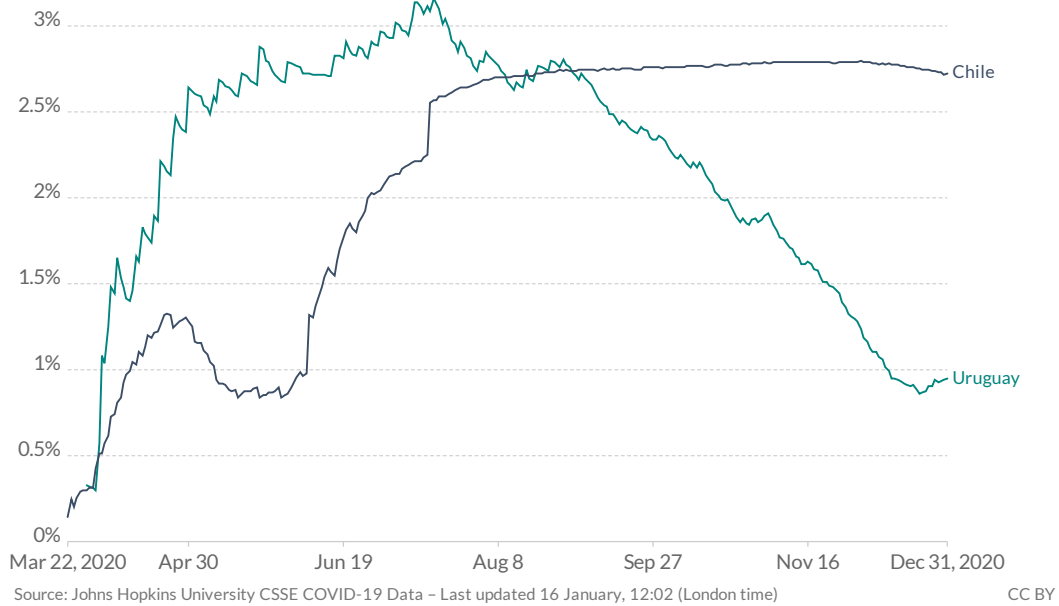


Image shows the 7-day rolling average of Chile and Uruguay's case fatality rate related to COVID-19. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 11. Daily COVID-19 fatality rate.²⁸⁵

²⁸⁵ Source: "Coronavirus Pandemic Data Explorer."

Daily new COVID-19 tests per 1,000 people

Shown is the rolling 7-day average.



Source: Official data collated by Our World in Data - Last updated 15 January, 12:50 (London time) CC BY
Note: For testing figures, there are substantial differences across countries in terms of the units, whether or not all labs are included, the extent to which negative and pending tests are included and other aspects. Details for each country can be found on ourworldindata.org/covid-testing.

Image shows the 7-day rolling average of COVID-19 tests conducted in Chile and Uruguay. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 12. Daily COVID-19 tests per thousand people in Uruguay and Chile.²⁸⁶

²⁸⁶ Source: "Coronavirus Pandemic Data Explorer."

The share of daily COVID-19 tests that are positive

Shown is the rolling 7-day average. The number of confirmed cases divided by the number of tests, expressed as a percentage. Tests may refer to the number of tests performed or the number of people tested – depending on which is reported by the particular country.

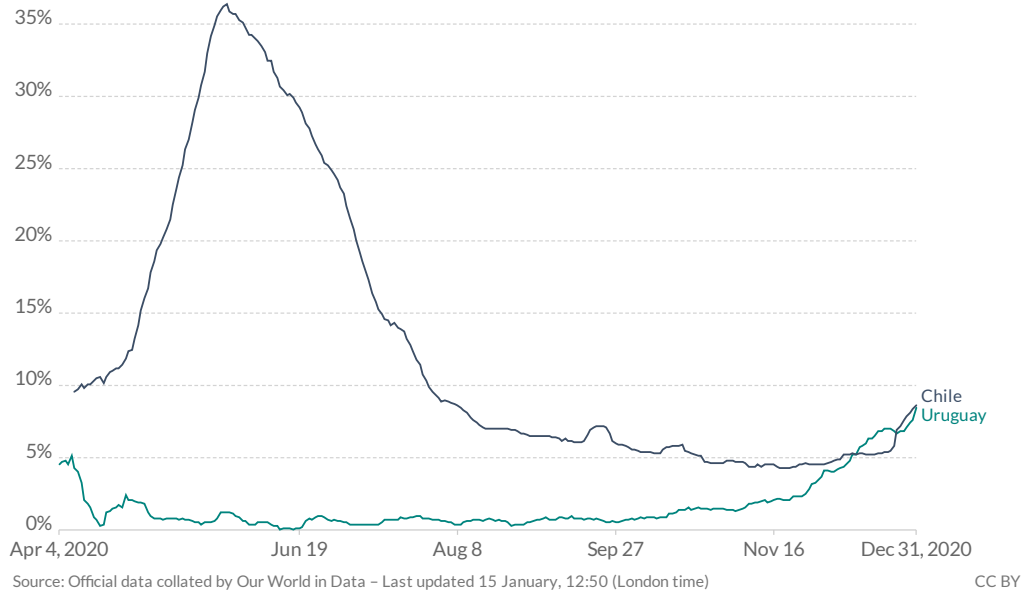


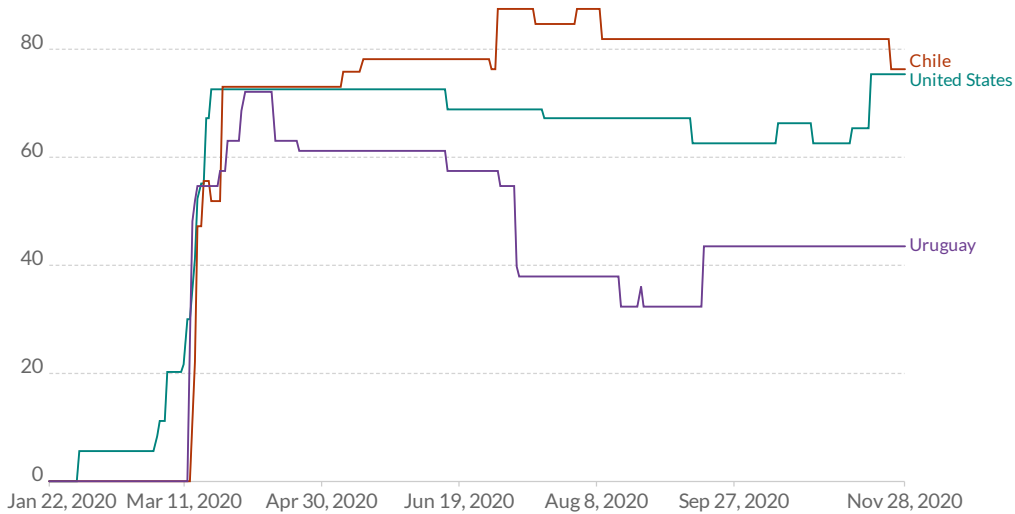
Image shows the 7-day rolling average of the percentage of positive COVID-19 tests. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 13. Percentage of Positive COVID-19 tests.²⁸⁷

²⁸⁷ Source: “Coronavirus Pandemic Data Explorer.”

COVID-19: Stringency Index

This is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.



Source: Hale, Angrist, Goldszmidt, Kira, Petherick, Phillips, Webster, Cameron-Blake, Hallas, Majumdar, and Tatlow (2021). "A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker)." *Nature Human Behaviour*. - Last updated 12 June, 05:00 (London time)
OurWorldInData.org/coronavirus • CC BY

Image shows the stringency index of the policies adopted by the United States, Chile and Uruguay in response to the COVID-19 Pandemic. Data from John Hopkins University Center for Systems Science and Engineering.

Figure 14. Stringency index for U.S., Chile and Uruguay.²⁸⁸

²⁸⁸ Source: "Coronavirus Pandemic Data Explorer."

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