



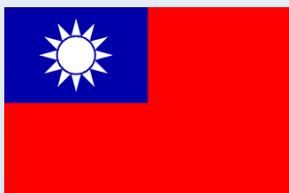
CENTER ON NATIONAL SECURITY AT FORDHAM LAW

Project on Biosecurity

REPORT #2

COVID-19 Early Responses:
Taiwan, Sweden, Italy, Brazil

March – November 2020



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Executive Summary

This report, the second installment in a series on governance and COVID-19, examines the experiences of four nations in confronting the COVID-19 pandemic: Taiwan, Sweden, Italy, and Brazil. We selected these four nations because they represent a diverse set of governance systems, cultures, and approaches to COVID-19.¹ They all became well-known case studies in mainstream media and academic discourse – Taiwan as an early success and model for the world; Sweden for its controversial, so-called “herd immunity” approach; Italy as the epicenter of the European outbreak; and Brazil for its leader’s dismissal of the virus as a threat to public health.

Our research on Taiwan, Sweden, Italy, and Brazil strengthened our confidence in the findings of our first report, in which we made the following assessments. First, governance structure – whether a country is democratic or authoritarian, federal or centralized – does not have a significant impact on the effectiveness of an early pandemic response. Second, no single factor leads to a successful response to COVID-19. Four governance factors, in combination, can help prepare a government to best counter the pandemic: 1) strong central leadership and interagency coordination; 2) an adaptable, pre-existing pandemic strategy and implementation plan; 3) regard for societal and cultural factors that can help or hinder the national response; and 4) the implementation of a strict lockdown and/or effective data-driven measures.

This report recognizes two quantifiable variables as metrics of a country’s success in responding to COVID-19: a country’s total number of deaths per 100,000 people and the daily share of COVID-19 tests that are positive.² The total number of deaths on a population basis reflects a country’s overall performance in stemming the spread of the virus and managing the treatment of COVID-19 patients, while the daily share of positive COVID-19 tests demonstrates how well a country is currently assessing the spread of COVID-19.³ These measures result in the following rank order for success, from most successful to least successful initial response: Taiwan, Sweden, Italy, and Brazil.⁴ It is worth noting that Taiwan significantly outpaces Sweden, Italy, and Brazil on both measures. **As of November 2020, Taiwan was widely recognized as one of the most**

¹ COVID-19 is a novel respiratory illness that is believed to have originated in Wuhan, China, in December 2019. It spread rapidly across the globe and, as of this writing, has infected more than 53.5 million people and killed over 1.3 million.

² “Mortality Analyses,” Johns Hopkins University. November 15, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>; “The share of COVID-19 tests that are positive,” Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..latest&country=SWE~ITA~TWN>.

³ According to Johns Hopkins University, a low percent positive rate (< 5%) indicates that a country is testing adequately; a high percent positive rate (>5%) indicates that a country is likely not testing enough people and therefore missing infections. The World Health Organization articulated in March that 12% or below is indicative of an adequate testing regime. For more information, see: “COVID-19 Testing: Understanding the ‘Percent Positive,’” Johns Hopkins Bloomberg School of Public Health. August 10, 2020. Available from <https://www.jhsph.edu/covid-19/articles/covid-19-testing-understanding-the-percent-positive.html>; “COVID-19 - virtual press conference - 30 March 2020,” World Health Organization. March 30, 2020. Available from https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-30mar2020.pdf?sfvrsn=6b68bc4a_2.

⁴ The number of deaths per 100,000 and the percent positive daily tests for each country as of November 15, respectively, are as follows: 1) Taiwan, 0.03 deaths and 1.00%; 2) Sweden, 60.53 deaths and 10.00%; Italy, 73.04 deaths and 15.90%; and Brazil, 78.64 deaths and unknown percent positive. We lack data on Brazil’s percent positive, but we presume that it is relatively very high, based on statements by the humanitarian organization Médecins Sans Frontières and Brazil’s Ministry of Health. See: “Brazil’s COVID-19 nightmare is far from under control,” Médecins Sans Frontières. June 17, 2020. Available from <https://www.msf.org/coronavirus-covid-19-nightmare-continues-brazil>; “Brazil uses less than a third of available coronavirus tests, newspaper says,” *Reuters*. September 4, 2020. Available from <https://www.reuters.com/article/us-health-coronavirus-brazil/brazil-uses-less-than-a-third-of-available-coronavirus-tests-newspaper-says-idUSKBN25V1OY>.

successful nations in responding to COVID-19, with only seven deaths from COVID-19 in a population of more than 23 million people. The governments of Sweden, Italy, and Brazil have struggled much more by comparison.

This report employs the same methodology as our first report, with a few notable changes. In our first report, we utilized the *total* share of positive COVID-19 tests, rather than the *daily* share of positive tests. As more data became available on the daily share of positive tests, we determined that the daily share would be a more accurate measure of how adequately a country is currently testing for COVID-19. At the time of writing, more than a year and a half since initial cases were detected in Wuhan, many countries have changed their approaches and improved testing. In addition, in this report we employ a variable called the “Government Stringency Index,” which was developed by researchers at Oxford University to “record the strictness of ‘lockdown style’ policies that primarily restrict people’s behavior.”⁵ With this index, we are able to better test our hypothesis that either a strict lockdown or effective data-driven measures are necessary for success. The other factors included above – leadership, strategy, regard for culture, and use of technology – are less readily quantified, so we instead demonstrate through the use of timelines and case studies the degree to which they are present in each country’s response.

⁵ “Coronavirus Government Response Tracker,” University of Oxford Blavatnik School of Government. Available from <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>; “COVID-19: Government Response Stringency Index,” Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/covid-stringency-index?tab=chart&time=2020-01-22..latest&country=SWE~ITA~TWN~BRA>.

Note on Sources

This project relies primarily on university research data and government sources, including government websites and state-run media outlets, for information about each country's response to COVID-19.

To measure a country's number of deaths per 100,000 people, we utilize data from the Johns Hopkins University Coronavirus Resource Center.⁶ Our data on the number of positive cases per daily number of tests comes from Our World in Data, a collaboration between researchers at the University of Oxford and the Global Change Data lab.⁷ The "Government Stringency Index" variable was created by the University of Oxford, and is described as "a simple additive score of nine indicators measured on an ordinal scale, rescaled to vary from 0 to 100."⁸ The nine indicators are: 1) school closures; 2) workplace closures; 3) cancellation of public events; 4) restrictions on gatherings; 5) closing of public transport; 6) orders to "shelter in place," or otherwise stay at home; 7) restrictions on internal movement; 8) international travel controls; and 9) public information campaigns.

It is important to note at the outset that reporting on the number of deaths, cases, and tests is more reliable for certain countries than for others. This data may be unreliable due to underreporting, different methods of reporting data on a country-by-country basis, and a variety of other factors. Furthermore, there is likely varying degrees of underreporting deaths in nearly all countries. This has occurred for a variety of reasons, including suppressing the number of deaths by pressuring healthcare providers, as well as different standards on what is counted as a COVID-19 death, which can result in a higher number of deaths reported for diseases with similar symptoms, such as pneumonia.⁹ Nonetheless, the data cited in this report is seen as the most reliable at this time and is widely cited across academia, government, and the news media.

⁶ "Mortality Analyses," Johns Hopkins University. November 15, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>.

⁷ "The share of COVID-19 tests that are positive" Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..latest&country=SWE~ITA~TWN>.

⁸ "Codebook for the Oxford Covid-19 Government Response Tracker," Oxford University. November 4, 2020. Available from <https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/codebook.md>; "Methodology for calculating indices," Oxford University. November 4, 2020. Available from https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/index_methodology.md#legacy-stringency-index; Thomas Hale, Noam Angrist, Emily Cameron-Blake, et al., "Variation in Government Responses to COVID-19," University of Oxford Blavatnik School of Government. October 2020. Available from <https://www.bsg.ox.ac.uk/sites/default/files/2020-10/BSG-WP-2020-032-v8.pdf>.

⁹ "Technical Notes: Provisional Death Counts for Coronavirus Disease (COVID-19)," Centers for Disease Control and Prevention. May 13, 2020. Available from https://www.cdc.gov/nchs/nvss/vsrr/COVID19/tech_notes.htm#:~:text=Deaths%20due%20to%20COVID%2D,19%2Drelated%20mortality; Chris Buckley and Paul Mozer, "A New Martyr Puts a Face on China's Deepening Coronavirus Crisis," The New York Times. February 7, 2020. Available from <https://www.nytimes.com/2020/02/07/world/asia/china-coronavirus-doctor-death.html>.

Taiwan

Summary

On New Year's Eve 2019, officials at the Taiwan Centers for Disease Control wrote a concise, now-famous email to the World Health Organization requesting information about seven cases of atypical pneumonia reported that morning in Wuhan, China. Ignored by the WHO and Chinese health officials, Taiwan began health screenings for all travelers arriving from Wuhan that same evening. This four sentence email — cited by U.S. President Donald Trump, among others, as evidence of the WHO's early efforts to hide the severity of the outbreak — is representative of Taiwan's world-renowned approach to COVID-19: immediate, efficient, coordinated, and scientifically-driven.

With a population of 23.6 million, Taiwan had recorded a mere 602 confirmed cases and seven deaths from COVID-19 as of November 15, 2020 — its mortality rate is the lowest in the world at 0.03 deaths per 100,000 people.¹⁰ Only one percent of people tested in Taiwan have been found positive for COVID-19, in contrast to the United States, where 11.7 percent of those tested are found positive.¹¹ Taiwan's handling of the SARS epidemic in 2003 empowered the island nation to test its influenza strategy, perfect its interagency coordination mechanisms, and improve its hospital system well in advance of the COVID-19 pandemic. Despite its proximity to mainland China, Taiwan had largely overcome COVID-19 through a combination of highly competent, scientifically credentialed leadership; a well-tested influenza pandemic strategy; a society that respects mitigation measures; and an aggressive use of data and artificial intelligence.

A lesser known, but important, leader in the story of Taiwan's success is former Vice President Chen Chien-jen. A Johns Hopkins-trained epidemiologist, Chen led Taiwan through the SARS epidemic in his role as health minister from 2003 until 2005. Having overseen many of the changes implemented in response to SARS, Chen was well-positioned to lead the nation through COVID-19, particularly in partnership with President Tsai Ing-wen. Tsai is known for her fearlessness in standing up to an increasingly confrontational Beijing, and the President's and Vice-President's combined scientific and political prowess made them ideal partners in the critical early stages of the pandemic. Taiwan's National Health Command Center (NHCC) — created in 2004 following SARS — serves as the nation's centralized disaster management center.¹² The NHCC has successfully coordinated efforts across Taiwan's various government ministries over the course of the COVID-19 pandemic, in accordance with Taiwan's pandemic influenza strategy.

Taiwan's Executive Yuan approved the nation's first pandemic influenza strategic plan in 2007, and it was most recently revised in 2012.¹³ Importantly, the 2012 edition updates previous guidance by establishing no domestic pandemic phase structure separate from that of the WHO,

¹⁰ Source: "Mortality Analyses," Johns Hopkins University. November 15, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>.

¹¹ "The share of COVID-19 tests that are positive," Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..2020-11-11&country=TWN~USA>.

¹² "NHCC," Taiwan Centers for Disease Control and Prevention. Accessed November 15, 2020. Available from <https://www.cdc.gov.tw/En/Category/MPage/gL7-bARtHyNdrDq882pJ9Q>.

¹³ "Influenza Pandemic Strategic Plan - Third Edition," Taiwan Centers for Disease Control and Prevention. July 2012. Available from <https://www.cdc.gov.tw/En/File/Get/w-5LDPRCt-nm3BacVaOWA>.

despite Taiwan's historically strained relationship with the international body. The plan outlines four strategies that are intended to be scheduled according to the pandemic phase identified by the WHO: 1) surveillance and assessment, 2) interruption of transmission, 3) antivirals, and 4) influenza vaccine. The strategic plan describes Taiwan's plan for personal protective equipment preparedness, healthcare preparedness, and risk communication, and details how the nation will address each component based on the pandemic phase. The document also incorporates five lines of defense against pandemic influenza: 1) containment abroad, particularly "aggressive participation in international cooperation"; 2) border control; 3) community epidemic control; 4) maintenance of medical system functions, with an emphasis on nosocomial¹⁴ infection control; and 5) individual and family protection.

The third and fifth lines of defense — community epidemic control and individual and family protection — highlight the role of Taiwanese society in countering infectious disease outbreaks. Unlike many Western nations, Taiwan has not imposed a lockdown, and instead relies on citizens to wear masks, follow social distancing guidance, participate in voluntary tracking mechanisms, and abide by national and local laws and regulations.¹⁵ Taiwan has facilitated citizen cooperation by delivering groceries and other essential consumer goods to people's homes, and partnering with hotels nationwide to provide housing for those who are unable to properly quarantine at home. The government has readily anticipated and provided for the needs of its people, leading to high levels of trust in government and respect for the government approach over the course of the pandemic.

Taiwan's success without a government-imposed lockdown might not have been possible, however, without the aggressive use of data and artificial intelligence to track cases, enforce quarantine and isolation orders, and inform the public of crisis developments. One noteworthy program is Taiwan's so-called electronic fence system, which uses mobile phone data to monitor those who are on quarantine orders at home. The system notifies local government and law enforcement officials when a person under quarantine shuts off their mobile device or leaves the home, and within 15 minutes the person will be contacted or visited by the authorities. Unlike many Western governments — which sought to enforce lockdowns on all citizens regardless of whether they were COVID-19 positive — Taiwan instead utilized data-driven measures to immediately track down and isolate potential cases before they could replicate in the community. Though many programs were indeed voluntary, citizen trust in the government and acceptance of a privacy-invasive approach led to widespread participation, which ultimately enabled the government to succeed in this technologically-driven approach.

¹⁴ The World Health Organization defines nosocomial infection as "an infection occurring in a patient during the process of care in a hospital or other health care facility which was not present or incubating at the time of admission." For more information, see: "The burden of health care-associated infection worldwide," World Health Organization. Available from https://www.who.int/infection-prevention/publications/burden_hcai/en/#:~:text=associated%20infection%20worldwide-WHO.at%20the%20time%20of%20admission.

¹⁵ Cheryl Lin, Wendy E. Braund, John Auerbach, Jih-Haw Chou, Ju-Hsiu Teng, Pikuei Tu, and Jewel Mullen, "Policy Decisions and Use of Information Technology to Fight COVID-19, Taiwan," *Emerging Infectious Diseases*. 26(7), 1506-1512. Available from https://wwwnc.cdc.gov/eid/article/26/7/20-0574_article.

Taiwan - Timeline

1989

Taiwan establishes a physician-based surveillance system for infectious diseases that is operated by the Ministry of Health.

Source: [U.S. National Library of Medicine](#)

1998

Taiwan establishes a yearly seasonal mass influenza vaccination campaign that is directed and coordinated by the Taiwan CDC. It prioritizes at risk communities first, with the highest priority groups including individuals 65+ or those who are in long-term care facilities. These yearly campaigns also function as exercises for distributing vaccines during a larger-scale pandemic. This program also functions to maintain relationships among health officials, government agencies, the private sector, and individuals.

Source: [America Public Health Association](#)

June 4: 55 infants and young children die of an Enterovirus outbreak. The Department of Health forms a task force to monitor the epidemic.

Source: [WHO](#)

1999

July 1: To adapt to the shifting nature of communicable disease patterns, the Taiwanese government merges the Division of Disease Control, the National Institute of Preventive Medicine, and the National Quarantine Service in order to establish the Centers for Disease Control.

Source: [Taiwan CDC](#)

2003

February 21: The first probable SARS patient arrives in Taiwan after travelling to Guangdong Province, China.

Source: [Emerging Infectious Diseases](#)

March 14: The first case of SARS is confirmed in Taiwan.

Source: [CDC](#)

March/April: The Taiwan Department of Health (DOH) forms a SARS advisory committee; implements infection control training, contact tracing, and quarantine protocols; and enforces strict airport and border surveillance. As a result of these measures, Taiwan controls the spread of SARS and the WHO changes Taiwan's designation from "affected area" to "area with limited local transmission" in early April.

Source: [CDC](#)

April 22: Department of Health officials are notified about seven cases of SARS among healthcare workers in Taipei.

Source: [CDC](#)

April 28: Taiwan implements widespread quarantine measures, which improves the onset-to-diagnosis time of all SARS patients.

Source: [Emerging Infectious Diseases](#)

April 28: Executive Yuan forms a SARS Prevention and Relief Committee to assemble the Cabinet and prepare for the fight against SARS.

Source: [Taiwan CDC](#)

Month?: The Communicable Disease Control Medical Network is established in response to the need for isolation and treatment of patients infected with SARS.

Source: [Taiwan CDC](#)

May 2: The “Provisional Regulations Governing the Prevention and Relief of SARS” is announced.

Source: [Taiwan CDC](#)

May 21: Taiwan is included in the WHO’s travel advisory list. The WHO’s criteria for removal are: a significantly lower epidemic curve; fewer than five daily cases; no exported SARS case; each case having a confirmed source of transmission; and fewer than 60 SARS patients receiving treatment in a hospital.

Source: [Taiwan CDC](#)

June 17: The WHO removes Taiwan from its travel advisory list, citing case detection, infection control, and contact tracing developments that caused a steep drop in daily cases of SARS.

Source: [World Health Organization](#)

July 5: The WHO removes Taiwan from its list of areas with recent local transmission of SARS. Taiwan has recorded a total of 346 cases of SARS and 37 deaths.

Source: [World Health Organization](#)

August 19: SARS is redefined as a Type-1 notifiable disease.

Source: [Taiwan CDC](#)

2004

The National Health Command Center is created to respond to public health emergencies and provide disaster information to decision-makers. It is a unified central command system which includes the Central Epidemic Command Center, the Biological Pathogen Disaster Command Center, the Counter-Bioterrorism Command Center, and the Central Medical Emergency Operations Center. Officials are dispatched to observe the U.S. health commanding center.

Source: [Taiwan CDC](#)

January 20: The Communicable Disease Control Act is amended. Several new notifiable diseases are added in accordance with the WHO's International Health Regulations.

Source: [Ministry of Health and Welfare](#)

2005

May 24: The Executive Yuan approves the National Influenza Preparedness Plan, which becomes the core plan for the prevention and control of influenza outbreaks.

Source: [Ministry of Health and Welfare](#)

2008

June 11: There is an outbreak of enterovirus 71. The Department of Health calls a conference to establish the Enterovirus National Health Command Center. At the conference, the Minister of the Department of Health affirms that the Command Center will focus on prevention work since the enterovirus has no vaccine and that the Bureau of National Health Insurance will fund medical fees linked to the enterovirus. The virus peaks in mid-June and then declines quickly. There are 373 cases and 14 deaths.

Source: [Taiwan CDC](#)

2009

April 28: The WHO raises the influenza pandemic phase to phase 4 due to global outbreaks of H1N1. Taiwan establishes the Central Epidemic Command Center (CECC). The center imposes on-flight quarantines for all flights from the Americas and other border prevention methods. Taiwan CDC releases a diagnostic test for H1N1.

Source: [Taiwan CDC](#) [Taiwan CDC](#)

May 20: Enhanced screening revealed the first imported case of H1N1 in Taiwan after a traveler returned from the US. The patient was isolated in the hospital and treated with oseltamivir which allowed him to fully recover.

Source: [Taiwan CDC](#)

May 24: First domestic case of H1N1 was discovered through screening and contact tracing.

Source: [Taiwan CDC](#)

June 1: CECC begins to procure vaccines as well as produce rapid diagnostic tests.

Source: [Taiwan CDC](#)

June 19: H1N1 is removed from the list of Category I Notifiable Infectious Disease and is reclassified as Category IV.

Source: [Taiwan CDC](#)

August 17: Taiwan CDC publishes its "Clinical Treatment Guideline for Influenza A" which provides regulations for diagnosis, treatments, and prevention methods. This Clinical Treatment

Guideline reinforced protection protocol for medical personnel which proved vital in limiting the spread of both H1N1 and COVID-19 across health-care workers.

Source: [Taiwan CDC](#)

August 26: Taiwan CDC releases a vaccine priority list for the upcoming distribution of an H1N1 vaccine.

Source: [Taipei Times](#) [Taiwan CDC](#)

August 29: The CECC procures treatments for the pandemic, releasing the medication to the public for free under the National Health Insurance system, as instructed by the president.

Source: [Taiwan CDC](#)

September 1: Classes are suspended for students as transmission of H1N1 is suspected in Taipei City.

Source: [Emerging Infectious Diseases](#)

October 14: CDC announces a second wave of H1N1 in Taiwan when the CECC states the total cases to have reached 355. Classes around the country remain suspended.

Source: [Focus Taiwan](#)

November 2: H1N1 vaccination begins with front-line healthcare workers, in accordance with the CDC vaccine priority list. Over the next few weeks infants, pregnant women, students, and persons with major illness or injuries are vaccinated. Immunization is free and voluntary.

Source: [CDC](#)

November 27: The CECC states that 1.6 million people have received the H1N1 vaccine.

Source: [Taiwan CDC](#)

December 12: The H1N1 vaccine is made available to the general public of Taiwan.

Source: [Taiwan CDC](#)

2010

February 23: The second wave of H1N1 virus in Taiwan ends.

Source: [Taiwan CDC](#)

August 10: WHO declares Taiwan has reached a post-pandemic period for H1N1 pandemic. Taiwan continues to offer free H1N1 vaccination. The mortality of H1N1 in Taiwan was 1.8 per million, one-fifth that of the United States.

Source: [Taiwan CDC](#), [U.S. National Institutes of Health](#)

2011

The Taiwan CDC issues an update to its three-tier personal protective equipment stockpiling framework to keep up with the surge of PPE needed in the early stages of a pandemic. This

framework focuses on optimizing the PPE stockpiling efficiency, ensuring a minimal stockpile, using the government's funds most effectively, and achieving the goal of sustained management.

Source: [Europe PMC](#)

2012

July: The third edition of the Influenza Pandemic Strategic Plan is published. The four main national goals are sustained surveillance, infection control, harm reduction, and recovery. With this edition, the focal point of the plan is switched to “influenza pandemic” from “h5n1 avian influenza.”

Source: [Taiwan CDC](#)

2013

April 4: First case of H7N9 confirmed in Taiwan. The CECC met to impose quarantine protocols and other preventative measures to quell the spread of H7N9. Borders are regulated and travelers from mainland China are screened.

Source: [Ministry of Health and Welfare](#)

2014

May: Taiwan CDC and MHW publish Guidelines for Dengue / Chikungunya Control. It specifies how contagious these diseases can be, and that all sections of government, health, environmental protection, civil affairs, and education need to work together to effectively prevent and control them. Local leaders must convene all government units to participate.

Source: [Taiwan CDC](#)

July 17: After the WHO declares Ebola a PHEIC, Taiwan CDC prepares surveillance and quarantine measures to preemptively reduce the risk of an Ebola outbreak in Taiwan.

Source: [Taiwan CDC](#)

August 1: Taiwan imposes a travel health notice for Guinea, Sierra Leone, and Liberia in response to the Ebola virus outbreak. It also modernizes its Nationwide Disease Prevention protocols to explore stricter lockdown measures.

Source: [Ministry of Health and Welfare](#)

August 8: The Taiwan CDC consults with regional and deputy commanders to establish an emergency response task force and strengthen four key areas: health education, quarantine control, hospital preparedness, and international cooperation. The Taiwan CDC holds conference calls covering 1) the emergency response plan for managing a patient with Ebola and other response efforts with medical directors in regional responding hospitals; 2) public health measures with local health bureaus; and 3) issues of healthcare personnel safety with relevant medical associations.

Source: [U.S. National Institutes of Health](#)

December 2: Taiwan sends \$1 million to the U.S. Centers for Disease Control efforts to treat and prevent Ebola in West Africa. Taiwan's ability to send its own doctors and supplies is limited by China; however, it contributes donations through the American CDC.

Source: [Taiwan CDC](#), [The Diplomat](#)

2015

May 27: The Taiwan CDC invites commanders from the six regions of the Communicable Disease Control Medical Network to discuss the MERS-CoV cases in South Korea and Taiwan's current preparedness and response measures. The commanders agree that the spread of the disease remains limited in South Korea, and decide that it would be inappropriate to raise the travel notice level at this time.

Source: [Taiwan CDC](#)

June: Taiwan and the United States establish the Global Cooperation and Training Framework to improve cooperation among different countries when addressing humanitarian assistance and public health.

Source: [Focus Taiwan](#)

October: Taiwan suffers one of the worst outbreaks of dengue fever with more than 43,000 dengue cases and 228 deaths.

Source: [Taiwan CDC](#)

2016

February 2: The CECC is activated in response to the Zika virus pandemic.

Source: [The News Lens](#)

March 23: Taiwan strengthens its yearly dengue prevention and control efforts by implementing four strategies, one of which involves funding and supervising local governments and their implementation of preparedness efforts earlier than usual, and giving local governments revised guidelines for diagnosis, treatment, prevention, and control. Dengue NS1 rapid test restrictions are loosened to facilitate early diagnoses. The Taiwanese government also establishes a national level research institute for vector-borne illnesses to assist local governments in implementing prevention efforts.

Source: [Taiwan CDC](#)

2019

September 24: The Taiwan Epidemiology Bulletin publishes Overview of the Pandemic Influenza Vaccine Stockpiling Strategies. The strategy switches from an emphasis on stockpiling pre-pandemic vaccines to the use of APA-advanced purchasing agreements.

Source: [Taiwan CDC](#) (English abstract), [Taiwan CDC](#) (Chinese full text)

December 31: The Taiwan CDC learns from online sources that there had been at least 7 cases of atypical pneumonia in Wuhan, China. Taiwanese officials write an email to the International

Health Regulations contact person of the World Health Organization to inquire into the epidemic situation. The CECC holds a press conference on the recent developments and urges citizens to refrain from sharing unsubstantiated information. Health screenings begin for passengers arriving in Taiwan from Wuhan.

Source: [Taiwan Ministry of Health and Welfare](#), [Taiwan Ministry of Health and Welfare](#), [Focus Taiwan](#), [TIME](#)

2020

January 12: A Taiwanese laboratory team introduces an upgraded four-hour testing kit for the novel coronavirus, shortened from the initial 24-hour test, just one day after China released the virus's full genomic sequence.

Source: [Taiwan CDC](#)

January 13: Taiwan sends Commander Chuang Yin-ching, leader of Taiwan's Communicable Disease Control Medical Network, and medical officer Hung Min-nan from the Taiwan Centers for Disease Control to visit Wuhan to obtain more comprehensive information of the outbreak.

Source: [Taiwan CDC](#), [Washington Post](#)

January 14: Taiwan's Ministry of Health and Welfare completes a comprehensive nation-wide assessment in accordance with the WHO's "National Capacities Review Tool for a Novel Coronavirus."

Source: [Taiwan Ministry of Health and Welfare](#)

January 20: Taiwan announces the activation of the CECC to address the novel coronavirus as cases rise in neighboring countries. The Taiwan CDC Director-General Chou Chih-haw is responsible for integrating resources across government agencies and further protecting the health of the Taiwanese public. A cross-agency command center meeting and an expert consultation are held, with Executive Yuan Vice Premier Chen Chi-mai in attendance at the former. A health education booklet titled "Travel Epidemic Alert Active Health Reporting" is distributed on all arriving flights from China, Hong Kong, and Macau. Taiwan CDC also confirmed the inspection capabilities and assisted healthcare institutions in making an inventory of isolation rooms.

Source: [Focus Taiwan](#), [Taiwan CDC](#), Taiwan Ministry of Health and Welfare

January 21: Taiwan confirms the first case of COVID-19, a Taiwanese woman who had recently returned from Wuhan. CECC continues to integrate resources across government agencies and reinforce quarantine measures at international airports and ports. The government continues raising public awareness about the disease in order to reduce public panic.

Source: [Focus Taiwan](#), [Taiwan CDC](#)

January 22: The Taiwan CDC begins distributing surgical masks for purchase in convenience stores. One million surgical masks are released for sale on January 22 and January 23 respectively. An additional one million surgical masks will be released every week for seven weeks beginning January 30. The Customs Administration activates fast-track customs clearance for epidemic control supplies.

Source: [Taiwan CDC](#), [Ministry of Health and Welfare](#)

January 23: The CECC begins to hold daily public briefings. It escalates the outbreak level for the novel coronavirus to Level 2 and announces that Minister of Health and Welfare Chen Shih-Chung will act as the “Commander” of response efforts. Executive Yuan Premier Su Tseng-chang and Vice Premier Chen Chi-mai attend the command center meeting and instruct that the prevention work for the epidemic shall be considered combat missions and handled rigorously with thorough preparation. All levels of government agencies and professional academic associations are tasked to inform and supervise respective medical institutions in the implementation of outpatient and emergency patient diversion mechanisms.

Source: [Taiwan CDC](#), [Taiwan Ministry of Health and Welfare](#)

January 24: The criteria for reporting a case of the novel coronavirus are loosened and changed to “fever or acute respiratory tract infections.” All travelers returning to Taiwan from Wuhan - regardless of whether they have symptoms - are advised to stay home and to use a surgical mask if it is necessary to leave. All arrivals, including citizens, are required to complete a COVID-19 health declaration card.

Source: [Taiwan CDC](#), [Taiwan Ministry of Health and Welfare](#)

January 25: A system created in three days provides access to Wuhan-related travel history through the NHI-Medi-Cloud System.

Source: [YouTube](#)

January 26: Taiwan restricts the entry of Chinese tourists. The CECC urges people to cooperate and abide by prevention measures implemented if they are identified as contacts of an infected person by health authorities. CECC will enforce the measures, which include maintaining an activity log for a 14-day health monitoring period, by placing violators in isolation and requesting the Ministry of Justice and National Police Agency to handle the matter.

Source: [Focus Taiwan](#), [Taiwan CDC](#)

January 27: The National Health Insurance Administration begins providing the information of patients with Hubei travel history to all of healthcare providers through the NHI MediCloud System, tasked by the CECC.

Source: [Taiwan Ministry of Health and Welfare](#)

January 29: Executive Yuan Premier Su Tseng-chang and Vice Premier Chen Chi-mai attend a CECC meeting. The CECC issues guidance for public transportation, public gatherings, schools, and educational institutions and groups, and provides advice on prevention measures to reduce the risk of infection.

Source: [Taiwan CDC](#)

January 29: Government agencies begin delivering food and other necessities to those isolated or in quarantine. A digital fencing tracking system keeps track of those isolated and quarantined at all times.

Source: [YouTube](#)

February 2: The CECC determines that all primary and secondary schools in Taiwan will postpone the start of the spring semester for 2 weeks.

Source: [Taiwan CDC](#)

February 4: Name-based mask rationing begins in Taiwan. The private sector voluntarily develops a mask map mobile app.

Source: [Focus Taiwan](#), [Taiwan CDC](#), [YouTube](#)

February 6: All major television and radio broadcast channels are required by the government to broadcast major epidemic prevention information at least twice per hour.

Source: [Taiwan Ministry of Health and Welfare](#)

February 11: Health authorities expand travel advisories to warn against travel to Hong Kong, Macau, Singapore, and Thailand. The CECC states that there have been no community-acquired cases COVID-19 in Taiwan. Taiwan's current 18 confirmed cases are all imported or close contact cases.

Source: [Focus Taiwan](#), [Taiwan CDC](#)

February 12: The Taiwan CDC conducts retrospective COVID-19 screening after widening its testing criteria due to the discovery that the virus could be transmitted by those who have mild or no symptoms, travel history, or definitive exposure to a confirmed case. The effort identifies 113 suspected patients who had tested negative in the previous 14 days, one of whom later tests positive on February 15. Close contacts of this patient - case 19 - are required to undergo a 14 day quarantine, and hundreds more possible contacts of the patient are placed under self-monitoring for 14 days.

Source: [U.S. Centers for Disease Control and Prevention](#)

February 14: Taiwan announces the launch of the Passenger Health Declaration and Home Quarantine Information System (Entry Quarantine System), developed jointly by the Department of Cyber Security, Executive Yuan, and the Ministry of Health and Welfare. Travelers with mobile phone numbers provided by telecom operators in Taiwan can use the Entry Quarantine System by scanning the QR Code and signing a health declaration form while waiting to check-in for their flights. The health declaration pass will be sent to travelers' phones via SMS upon arrival in Taiwan. Travelers will get faster immigration clearance by showing the health declaration pass.

Source: [Taiwan CDC](#), [Taiwan Ministry of Health and Welfare](#)

February 15: Home quarantine is required for travelers who have a history of travel to endemic areas and meet the criteria for home-based quarantine after entry. [Taiwan CDC](#)

February 16: Taiwan records its first death from COVID-19. CECC expands mandatory COVID-19 testing for the following categories: 1) Any individuals with foreign travel history in the past 14 days, or any individuals who have had contact with foreign travelers with a fever or respiratory symptoms in the past 14 days; 2) Clusters of cases of fever/respiratory symptoms; and 3) pneumonia cases whose symptoms haven't improved after three days of antibiotic therapy for unknown cause or clusters of pneumonia cases or healthcare workers having pneumonia. Face

masks are available for purchase at 303 local health centers and pharmacies using the name-based system.

Source: [Focus Taiwan](#), [Taiwan CDC](#)

February 25: Taiwan's legislature passes a relief bill called the Special Act for Prevention, Relief and Revitalization Measures for Severe Pneumonia with Novel Pathogens.

Source: [Focus Taiwan](#)

February 26: Primary and secondary schools reopen with temperature checks, mask requirements, and social distancing protocols in effect, after a two week postponement of the start of the spring semester following the winter break.

Source: [Focus Taiwan](#)

February 27: The CECC is upgraded to become a Level 1 facility. Daily mask production in Taiwan exceeds 12 million.

Source: [YouTube](#), [Taiwan Ministry of Health and Welfare](#)

March 1: The CECC invites local governments to discuss the command structure, frontline health workers' lateral communication, division of labor, and consultation and integration of dedicated lines. Taiwan's 22 counties and cities jointly initiated "Local government care and support service project for home quarantine and isolation."

Source: [Taiwan Ministry of Health and Welfare](#)

March 2: Universities reopen with mitigative measures in place.

Source: [Focus Taiwan](#)

March 3: The CECC issues [guidelines](#) for large-scale public gatherings. It recommends that organizers of gatherings conduct risk assessments based on the following six indicators: 1) ability to gain information on participants beforehand; 2) air ventilation and replacement; 3) distance between participants; 4) whether participants are in a fixed position; 5) event duration; and 6) hand hygiene and surgical masks. If an assessment of the nature of the gathering finds a high degree of risk, the CECC recommends that the gathering be postponed or cancelled, or held in a different manner.

Source: [Taiwan CDC](#)

March 12: The second version of the name-based mask rationing plan is introduced. Masks can be ordered online and sent to designated convenience stores and supermarkets nationwide.

Source: [YouTube](#)

March 18: The government combines the Entry Quarantine System with the Digital Fencing Tracking System, which uses mobile phone positioning to determine if a person has broken quarantine orders. It sends an alert message to the individual, civil affairs departments, health departments, and local police to ensure full compliance with quarantine rules.

Source: [Taiwan Ministry of Health and Welfare](#)

March 19: Travel bans are enforced on all foreign visitors, with limited exceptions, as the nation reaches 100 cases and one death from COVID-19. All arrivals must comply with mandatory 14-day self-isolation. All transit passengers are banned days later.

Source: [Focus Taiwan](#), [Focus Taiwan](#), [Taiwan Ministry of Health and Welfare](#)

March 25: Taiwan prohibits public gatherings of more than 100 people indoors and more than 500 people outdoors. The government provides an evaluation procedure for smaller public events to determine whether the events are safe or should be cancelled or postponed.

Source: [Taiwan Ministry of Health and Welfare](#)

April 1: President Tsai Ing-wen addresses the nation, pledging assistance to foreign nations and expansion of domestic relief. Masks become mandatory on public transit. All high speed rail stations, train stations, post offices, airports, ports, highway rest areas, and bus transfer stations are requested to monitor body temperature. Individuals with fevers are not permitted to use public transportation. Taiwan's Tourism Bureau and the ministries of Transportation and Communications propose "Quarantine hotels" and formulate a subsidy program.

Source: [Focus Taiwan](#), [Focus Taiwan](#), [Taiwan Ministry of Health and Welfare](#), [Taiwan Ministry of Health and Welfare](#)

April 4: The CECC issues a nationwide alert reminding citizens to follow social distancing protocols during the Tomb Sweeping Festival. Two text messages are sent to alert citizens and tourists of the risks near popular tourist attractions.

Source: [Focus Taiwan](#)

April 10: Tighter domestic restrictions are enforced as clubs and ballrooms are shut down and markets require masks and social distancing.

Source: [Focus Taiwan](#)

April 18: Citizens returning from America and Europe are requested to report their travel history to authorities. Those who live with elderly relatives, chronic disease patients, or underage children are requested to stay in designated epidemic prevention hotels.

Source: [Ministry of Health and Welfare](#)

April 20: The CECC issues an alert to about 200,00 people whose mobile phone data showed that they had been in the same location as 24 military personnel who tested positive for COVID-19 from the period of April 15-18. The alert instructs people to monitor for symptoms and practice "self-health management."

Source: [Focus Taiwan](#)

May 1: Taiwan does not record any new cases for six consecutive days. Taiwan bans the export of hand sanitizers and disinfectants, a few days after introducing a mask donation platform for citizens to donate extra masks to countries with mask shortages.

Source: [Focus Taiwan](#), [Focus Taiwan](#)

May 4: Citizens returning from abroad are requested to report their travel history to authorities. Those who live with underage children, chronic disease patients, or elderly relatives are requested to stay in designated epidemic prevention hotels.

Source: [Taiwan Ministry of Health and Welfare](#)

May 21: Taiwan records its first new case in two weeks as restrictions begin to be eased.

Source: [Focus Taiwan](#)

May 29: Taiwan announces that anyone in the country can obtain a self-pay test for COVID-19, now that the country has adequate testing capacity. The number of designated hospitals which accept a request for COVID-19 testing at the applicant's expense has increased from 18 to 37. The CECC further eases restrictions on COVID-19 testing, to include: 1) those under home isolation or quarantine who need to attend a funeral of a deceased relative; 2) those who need to visit other countries/regions for an emergency involving relatives overseas; 3) those requesting testing for work; 4) those requesting testing for studying abroad; 5) foreign nationals, mainland Chinese, Hong Kong or Macao residents requesting testing for departure; 6) family members of those listed above; and 7) members of the public requiring testing for other reasons.

Source: [Focus Taiwan](#), [Taiwan CDC](#)

June 7: The CECC eases restrictions, including social distancing rules and limits on mass gatherings, after 56 days with no new domestically transmitted infections. The government begins encouraging domestic travel to revitalize the economy. Taiwan's ban on the entry of foreign nationals will remain in place, with some exceptions. The mandatory 14-day isolation for all incoming travelers, including citizens, remains in place, as does the mandatory 14-day quarantine at a government facility for those with symptoms.

Source: [Focus Taiwan](#)

June 22-29: Taiwan eases travel restrictions to allow foreign business travelers for the first time since mid-March, when border controls were first introduced. International air passengers are permitted to transit through Taiwan's airport and foreign nationals can apply to enter the country for reasons other than tourism and social visits.

Source: [Focus Taiwan](#)

June 24: The United States, Australia, Japan, and Taiwan co-organize the Virtual Global Cooperation and Training Framework Workshop on COVID-19: Preparing for the Second Wave.

Source: [Taiwan CDC](#)

August 19: The CECC launches an investigation and conducts contact tracing after Laos, Vietnam, and Shanghai report travelers who tested positive after leaving Taiwan.

Source: [Taiwan CDC](#)

August 26: The CECC reminds the public that mask-wearing is mandatory in healthcare facilities, public transportation, markets, learning spaces, sports and exhibition venues, religious places, entertainment venues, and at large-scale events. Local governments and the competent authority of relevant enterprises may formulate and impose penalties on individuals who violate the measure, in accordance with the Communicable Disease Control Act.

Source: [Taiwan CDC](#)

Taiwan - Legislation

Communicable Disease Control Act (1944; amended in 2004): This act establishes regulations on the control and management of communicable diseases; providing protocols for the prevention and treatment of communicable diseases; and ensuring collaboration and communication among the proper authorities during outbreaks.

Source: [Laws and Regulations Database of the Republic of China](#)

National Health Research Institutes Establishment Act (1995): This act establishes the National Health Research Institutes (NHRI), which advance medical and health research in the public interest.

Source: [Laws and Regulations Database of the Republic of China](#)

Pharmaceutical Affairs Act (2017): This act provides the framework for pharmaceutical regulation in Taiwan. It authorizes the central competent health authority to more efficiently approve the manufacture and import of specific drugs in responding to public health emergencies.

Source: [Law and Regulations Database of the Republic of China](#)

Medical Care Act (2018): This act aims to advance the comprehensive development of the medical care industry, reasonably distribute medical care resources, improve the quality of medical care, protect the rights of the patient, and promote national health.

Source: [Law and Regulations Database of the Republic of China](#)

Special Act for Prevention, Relief and Revitalization Measures for Severe Pneumonia with Novel Pathogens (2020): This act is intended to prevent and control severe pneumonia with novel pathogens (such as COVID-19), protect the health of the people, and mitigate the impact of the disease on the domestic economy and society.

Source: [Laws and Regulations Database of the Republic of China](#)

Sweden

Summary

The Swedish response is known globally as one of the more controversial approaches to the COVID-19 pandemic. Unlike many European Union member states, Sweden has avoided a compulsory nationwide lockdown. At the time of writing, Sweden's mortality rate is one of the highest in the world at 58 deaths per 100,000 people, which is more than seven times the average COVID-19 mortality rate of its Nordic neighbors.¹⁶ Notably, nearly one-half of all deaths in Sweden had occurred in nursing homes and care facilities as of mid-September.¹⁷ The most recent data from November 2020 shows that about 10.5 percent of COVID-19 tests are found positive in Sweden, compared to an average of 1.4 percent in the other Nordic countries, as of November 15.¹⁸ However, Sweden's percent positive is currently lower than that of 14 of the 26 other EU member states plus Switzerland.¹⁹

Over the course of the pandemic, Sweden has temporarily closed secondary schools and universities, limited gathering sizes, and restricted entry from non-European countries. The government has issued guidelines encouraging people to work from home and limit movement—but the choice is ultimately left to the individual. This laissez-faire, non-compulsory approach has garnered much criticism, particularly in April 2020, when COVID-19-related deaths in Sweden soared as the rest of Europe was shutting down. Critics often refer to it as a “herd immunity” strategy, though the Swedish government denies that this was ever its approach. Sweden's response, unlike others in our dataset, appears to be driven by the country's culture, which is built on a high level of mutual trust between the government and its citizens.²⁰ This national culture of trust is a prominent feature of Sweden's strategy for COVID-19, and domestic crisis management more broadly.

¹⁶ Sweden's mortality rate is 58.26 deaths per 100,000 people, whereas Denmark's is 12.07 deaths per 100,000, Finland's is 6.40 deaths per 100,000, and Norway's is 5.25 deaths per 100,000, as of November 15. Source: “Mortality Analyses,” Johns Hopkins University. November 15, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>.

¹⁷ “‘They sacrificed the elderly’: How Covid-19 spread in Sweden's care homes,” *France 24*. September 16, 2020. Available from <https://www.france24.com/en/20200916-they-sacrificed-the-elderly-how-covid-19-spread-in-sweden-s-care-homes>.

¹⁸ As of November 8, Sweden's percent positive was 10.50%, whereas Denmark's was 1.70%, Finland's was 1.40%, and Norway's was 2.30%. More recent data on all four countries is not yet available. Source: “The share of COVID-19 tests that are positive,” Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..2020-11-11&country=SWE~NOR~DNK~FIN>.

¹⁹ As of November 8, Sweden's percent positive was 10.5%, which was lower than 14 other EU member countries, plus Switzerland: Poland (34.60%), Czech Republic (31.10%), Bulgaria (30.30%), Romania (28.60%), Slovenia (28.40%), Switzerland (27.70%), Croatia (27.00%), Hungary (24.30%), Belgium (21.30%), Austria (20.30%), France (17.90%), Slovakia (17.20%), Italy (15.90%), Portugal (13.00%), and Lithuania (10.80%). Data on the Netherlands, Greece, and Malta was not available. Source: “The share of COVID-19 tests that are positive,” Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=2020-04-10..2020-11-11&country=SWE~CHE~GBR~CYP~CZE~DNK~EST~FIN~FRA~DEU~HUN~IRL~ITA~LVA~LTU~LUX~MLT~NLD~POL~PRT~ROU~SVK~SVN~ESP~AUT~BEL~BGR~HRV>.

²⁰ Ryan Health, “Swedish leader defends coronavirus approach, shrugs off far-right embrace,” *Politico*. April 29, 2020. Available from <https://www.politico.com/news/2020/04/29/sweden-brushes-off-far-right-support-221193>; “Why Swedes are not yet locked down,” *The Economist*. April 4, 2020. Available from <https://www.economist.com/europe/2020/04/04/why-swedes-are-not-yet-locked-down>; Maddy Savage, “Could the Swedish lifestyle help fight coronavirus?,” *BBC News*. March 28, 2020. Available from <https://www.bbc.com/worklife/article/20200328-how-to-self-isolate-what-we-can-learn-from-sweden>; Emma Beswick, “Sweden's coronavirus strategy: has ‘culture of conformity’ saved the country from COVID fatigue?,” *Euronews*. October 19, 2020. Available from <https://www.euronews.com/2020/10/19/has-sweden-s-coronavirus-strategy-helped-it-avoid-pandemic-fatigue>.

Under the Swedish constitution, the country's Public Health Agency is granted significant autonomy from the central government.²¹ Government ministers are expected to follow the recommendations of the agency, which epidemiologist Anders Tegnell has led since 2013. Given his position, Tegnell carries far more weight in decision-making during the pandemic than Prime Minister Stefan Löfven. Tegnell decided to keep the country open in the early stages of the pandemic. All government ministries were therefore expected to implement this decision. While this chain of command reflects Swedish tradition – ministers follow the decisions of independent public agencies – it leaves very little room for dissent. Sweden does have a centralized National Pandemic Group consisting of multiple independent agencies, but evidence suggests that these other agencies are more involved in implementation of the Public Health Agency's strategy than in the actual strategic planning process.²²

In a sense, Sweden therefore has what many countries lack – a clear chain of command stemming from a central authority, recognized by all of government and the public. Had the government imposed more stringent measures, it is likely that Sweden would have had a more effective initial response to the COVID-19 pandemic. The question then is, what led Tegnell to steer Sweden away from the compulsory restrictions favored by other European nations?

Sweden's approach to civil emergency planning centers around three organizational principles: responsibility, similarity, and subsidiarity.²³ The responsibility principle, which the government describes as “the party responsible for a particular activity under normal circumstances is also responsible for that activity in a crisis situation,” is evident in the Public Health Agency's authority over the response to COVID-19, despite the fact that the epidemic has severe impacts on other sectors of government.²⁴ The principle of similarity, however, is key to understanding Sweden's approach, and is defined by one scholar as a circumstance in which “the organization of any function in crisis situations should remain as similar as possible to its normal status.”²⁵ As the report states, “The principle of subsidiarity holds that crises be managed at the most local possible level.”

²¹ Lars Jonung, “Sweden's constitution decides its exceptional Covid-19 policy,” Center for Economic Policy Research. June 18, 2020. Available from <https://voxeu.org/article/sweden-s-constitution-decides-its-exceptional-covid-19-policy>; Catherine Edwards, “Who's actually responsible for Sweden's coronavirus strategy?,” *The Local*. March 30, 2020. Available from <https://www.thelocal.se/20200330/whos-actually-in-charge-of-swedens-coronavirus-strategy>; “Sweden: Legal Responses to Health Emergencies,” Library of Congress. July 24, 2020. Available from <https://www.loc.gov/law/help/health-emergencies/sweden.php>.

²² The National Pandemic Group is chaired by the National Board of Health and Welfare and consists of the Infection Control Institute, the Swedish Work Environment Authority, the Medical Products Agency, the Swedish Civil Contingencies Agency, and Sweden's Municipalities and County Councils. For more information, see: “Nationell plan för pandemisk influensa - med underlag för regional och lokal planering,” Socialstyrelsen. May 2009. Available from <https://sverigesradio.se/diverse/appdata/isidor/files/406/6991.pdf>.

²³ The government incorporated these principles into its emergency planning in 1995, when it adjusted its crisis management strategy due to a lack of traditional military and external threats. Source: Joel Bergenfalk, “Coronavirus, Risk, and Responsibility: A Governmental Analysis of Swedish Crisis Management During the Covid-19 Pandemic,” Lunds Universitet. Spring 2020. Available from <https://lup.lub.lu.se/luur/download?func=downloadFile&recordId=9021925&fileId=9021931>.

²⁴ “Strategy in response to the COVID-19 pandemic,” Government Offices of Sweden. April 20, 2020. Available from <https://www.government.se/articles/2020/04/strategy-in-response-to-the-covid-19-pandemic/#:~:text=The%20responsibility%20principle,activity%20in%20a%20crisis%20situation>

²⁵ Joel Bergenfalk, “Coronavirus, Risk, and Responsibility: A Governmental Analysis of Swedish Crisis Management During the Covid-19 Pandemic,” Lunds Universitet. Spring 2020. Available from <https://lup.lub.lu.se/luur/download?func=downloadFile&recordId=9021925&fileId=9021931>.

Crisis scenarios by their very nature require a certain degree of reorganization of government and society, as the source of disorder interrupts daily life and government functions. Tegnell's early decision to keep Sweden open upon the initial entry of the virus reflects this prioritization of normality in Sweden's crisis management strategy, and the likelihood that there were no dissenting voices with the necessary authority. In early June 2020, Tegnell stated in an interview that, in retrospect, he would have adopted a different model for Sweden to contain the virus at its onset.²⁶

²⁶ Rafaela Lindeberg and Niclas Rolander, "Swedish Faith in Covid Strategy Plunges After Errors Revealed," *Bloomberg*. June 4, 2020. Available from <https://www.bloomberg.com/news/articles/2020-06-03/sweden-won-t-abandon-covid-strategy-despite-admitting-to-errors>.

Sweden Timeline

2000

April: The Third Baltic Sea States Summit in Kolding, Denmark, establishes a Task Force on Communicable Disease Control in the Baltic Sea Region, with special representatives from each of the eleven prime ministers and the President of the European Commission. Its mission is to reduce the risk and burden of communicable diseases in the region.

Source: [The Norwegian Medical Society](#)

2001

January: The Task Force on Communicable Disease Control in the Baltic Sea Region is extended for three years. It focuses on five programmatic areas: surveillance, early warning and vaccinations, Tuberculosis, HIV and STI (Sexually Transmitted Infections), Antibiotic Resistance and Hospital Infection Control, and Primary Health Care Services. The surveillance program received the least funding out of all programmatic areas.

Source: [The Norwegian Medical Society](#)

2002

June 14: The Nordic Public Health Preparedness Agreement is signed, which allows for treatment of patients in other Nordic countries if national resources are strained in times of crisis. The agreement supplements the 1989 Nordic Rescue Service Agreement.

Source: [Library of Congress](#)

2003

April: The SARS-CoV-1 outbreak leads to five recorded cases in Sweden. No deaths are reported and the disease is not recorded to have spread beyond the listed cases.

Source: [World Health Organization](#)

2004

April 7: The Swedish Parliament enacts the Infection Control Act, or Communicable Diseases Act, which establishes a mandate to report and address infectious diseases, as well as providing measures on how to appropriately monitor and control the health threat. The law lists notable diseases that must be reported, as they pose the greatest risk of outbreak.

Source: [Riksdag](#)

2006

December 21: The Swedish Parliament implements the World Health Organization's International Health Regulations adopted in Geneva on May 23, 2005. The act establishes the responsibilities of the municipalities and county councils to provide and regulate equipment, disseminate

information, monitor travel and transportation, and communicate with experts all regarding any international threat to human health.

Source: [Riksdag](#)

2009

January 1: The Swedish Civil Contingencies Agencies is created. It is responsible for “matters relating to protection against accidents, crisis preparedness and civil defense, to the extent that no other authority is responsible.” It engages in preparatory and preventive work; coordination and support during crises, or heightened periods of preparedness; evaluation; information security; and research and development.

Source: [Riksdag](#)

May: The National Board of Health and Welfare of Sweden releases a National Plan for Pandemic Influenza. The plan designates responsibilities among local and national organizations, emphasizing the importance of communication and cooperation. The plan evaluates both medical and non-medical responses to a potential pandemic.

Source: [National Board of Health and Welfare](#)

May 6: Sweden’s public health officials report the country’s first case of A(H1N1), or swine flu.

Source: [Reuters](#)

September 1: Swedish health authorities hold a press conference to inform the public that it is time to initiate a mass-vaccination with the influenza vaccine Pandemrix, following the first fatality from H1N1. Vaccines are offered to Swedes free of charge. 60 percent of Swedes participate in the vaccination program.

Source: [National Center for Biotechnology Information](#)

2010

August 18: The Swedish Medical Products Agency and the Finnish National Institute for Health and Welfare launch investigations into more than 200 cases of narcolepsy in children and young adults as an unexpected side effect of the Pandemrix mass vaccine.

Source: [Swedish Medical Products Agency](#), [National Institutes of Health](#)

2011

March 28: The Swedish Medical Products Agency issues a preliminary report following an investigation into the risk of narcolepsy as a side effect of the Pandemrix vaccine, using data drawn from regional vaccination registries of four Swedish counties. The Agency reported that the relative risk of narcolepsy was four times higher in vaccinated children and adolescents (born from 1990) compared to unvaccinated individuals, using data drawn from October 2009 to December 2010.

Source: [World Health Organization](#)

March 3: The National Board of Health and Welfare and the Swedish Contingency Agency issue a report evaluating the country's response to A(H1N1), or swine flu. The report noted several problems: coordinating the response between national and local authorities; following the transmission of the disease, despite mandatory reporting mechanisms in place; meeting the demands of patients, particularly in smaller counties; determining vaccine distribution priorities and public communication about the vaccine; and communicating with certain portions of the population due to language barriers.

Source: [Library of Congress](#), [Swedish Civil Contingencies Agency](#)

2014

January 1: The Public Health Agency of Sweden is created through a merger of the Swedish Institute for Infectious Disease Control and the National Institute of Public Health. It has overall responsibility for the country's communicable disease control, collection and analysis of data, microbiological laboratory analysis, preparedness and outbreak support, and international cooperation.

Source: [Public Health Agency of Sweden](#), [Public Health Agency of Sweden](#)

March 28: The Swedish Civil Contingencies Agency releases a national risk and capabilities assessment, which reports that there is a high probability that a pandemic with “catastrophic consequences for human life and health” will occur within the next 50-100 years.

Source: [Risker och förmågor 2013](#)

July: The National Board of Health and Welfare publishes the “National Plan of Action to Prevent the Spread of Measles and Rubella” as the country's contribution to WHO's objective of eliminating these two diseases. It promotes wider and faster implementation of health screenings, providing and spreading information to the public through various methods, and a further understanding of the MMR vaccine and how to implement it.

Source: [National Board of Health and Welfare](#)

October 23: The Swedish government adds Ebola to the list of “diseases dangerous to society” as part of the Communicable Diseases Act. As part of the list, it is considered disruptive to societal functions and therefore held as the basis for “extraordinary measures” taken by all national, local, and municipal governments. Sweden aids other countries by contributing personnel, financial resources, and health and medical care.

Source: [Ministry of Foreign Affairs Sweden](#)

2015

July 1: The Public Health Agency of Sweden assumes coordinating responsibility for infection control, which was previously handled by the National Board of Health and Welfare. It is the national contact point for international threats to human health, with the following priority target groups: the Riksdag and the government; state authorities; regions and county councils; municipalities; county administrative boards; and interest groups.

Source: [Public Health Agency of Sweden](#)

2017

October 23: The Prime Minister's office publishes the "National Security Strategy," which broadens the concept of "security issues" and gives a greater emphasis on protection against epidemics and infectious diseases. It discusses the importance of interagency and international cooperation and coordination, as well as having a sufficient number of tests and medicines in reserve for any sudden crises.

Source: [Government Offices of Sweden](#)

2018

November 1: Sweden publishes "Sweden's Work on Global Health - Implementing the 2030 Agenda." The main goals are to focus on creating societal conditions for good and equitable health, maintaining sustainable and effective health systems, and improving preparedness in detecting and managing outbreaks of diseases.

Source: [Government Offices of Sweden](#)

2019

December 19: Sweden's Public Health Agency publishes three official documents on pandemic preparedness, titled: "How We Prepare," "How We Communicate," and "Access to and Use of Medicines."

Source: [Public Health Agency of Sweden](#)

2020

January 16: COVID-19 is first mentioned on the website of the Swedish Public Health Agency. Swedish authorities consider the risk of the virus spreading to Sweden as very low. Citizens who have been to Wuhan can be tested, but it is voluntary.

Source: [Göteborgs-Posten](#)

January 29: The Swedish Public Health Agency announces that it is now following the novel coronavirus closely, and encourages people who have been to Wuhan and developed a fever and/or cough to contact a healthcare provider.

Source: [Göteborgs-Posten](#)

January 31: The first case of COVID-19 in Sweden is detected in Jönköping.

Source: [Public Health Agency of Sweden](#)

February 1: The Swedish government classifies COVID-19 as a "disease dangerous to society," opening the possibility of extraordinary communicable disease control measures.

Source: [Swedish Government](#)

February 5: The government advises a group of Swedes who have been evacuated from Wuhan to voluntarily quarantine at home.

Source: [Göteborgs-Posten](#)

February 13: Sweden increases testing, with eight laboratories nationwide to have the capacity to test for COVID-19. The risk of transmission throughout Sweden is still considered very low.

Source: [Göteborgs-Posten](#)

February 26: Sweden records its second case of COVID-19, nearly one month after its first case on January 31. The person had been infected with the coronavirus in Italy. The government increases the risk assessment of the general spread of the infection from “very low” to “low.”

Source: [Public Health Agency of Sweden](#), [Göteborgs-Posten](#)

February 27: Five additional cases of COVID-19 are confirmed, for a total of seven confirmed cases nationwide. Swedish public health authorities state that all of the cases have connections to travel or close contact with an infected person, and that there is not yet evidence of community transmission in Sweden.

Source: [Public Health Agency of Sweden](#)

March 2: Sweden halts flights from Iran. The Swedish Public Health Agency now assesses the risk of discovering new cases as “very high” - the highest level. The risk of general spread is assessed as moderate. 14 people have tested positive in Sweden.

Source: [Göteborgs-Posten](#)

March 6: The Swedish Public Health Agency recommends that the Ministry of Foreign Affairs advise Swedish citizens not to travel to northern Italy, where community transmission is high. The same advice applies to travel to parts of South Korea, Iran, and China.

Source: [Göteborgs-Posten](#)

March 10: Sweden raises the risk level of community transmission of COVID-19 to the highest level, indicating that there is a “very high risk,” in response to outbreaks in the Stockholm and Västra Götaland regions.

Source: [Public Health Agency of Sweden](#)

March 11: Sweden records its first death from COVID-19.

Source: [SVT Nyheter](#)

March 12: The Swedish government issues an ordinance prohibiting public gatherings and events with more than 500 participants nationwide, in accordance with the Public Order Act, Chapter 2, Section 15.

Source: [Swedish Government](#)

March 13: The government announces a change in strategy as transmission of the coronavirus enters a new phase in Sweden. The Swedish Public Health Agency assesses that the existing strategy of detecting all cases – by testing people who get symptoms after traveling in certain areas abroad and conducting contact-tracing – is no longer the most effective. It advises everyone who is ill with a cold or flu-like symptoms to stay home. The focus is on protecting the elderly and most vulnerable members of society. The agency now recommends sampling of people in need of inpatient hospital care who have had an acute illness with fever or respiratory symptoms for no

known reason. Anders Ferbe is appointed as the coordinator in response to the impact of COVID-19 on the business sector.

Source: [Swedish Public Health Agency](#), [Swedish Government](#), [Göteborgs-Posten](#)

March 14: The Ministry for Foreign Affairs advises against non-essential travel to all countries.

Source: [Swedish Government](#)

March 16: People over the age of 70 are recommended to avoid social contact. Employers are advised to give employees the option to work remotely.

Source: [Göteborgs-Posten](#)

March 17: The Swedish government bans non-essential travel to Sweden from all countries except those in the European Economic Area (EEA) and Switzerland, effective March 19. The EEA consists of the 27 European Union member states, along with Iceland, Liechtenstein, and Norway. The ban does not include citizens; those who have temporary or permanent residence in Sweden, another EEA state, or Switzerland; or those who have a national visa in Sweden. Others engaged in essential travel are also permitted entry.

Source: [Swedish Government](#)

March 17: Swedish secondary schools, universities, vocational schools, and adult education are now conducted remotely. Primary schools remain open for in-person education.

Source: [Swedish Government](#)

March 24: The Public Health Agency implements additional measures to reduce the spread of the virus in restaurants, bars, cafes, school dining halls, and other places serving food and drinks.

Source: [Swedish Government](#)

March 27: The Swedish Armed Forces provide 20 intensive care units and 50 hospital beds to Östra Hospital in Gothenburg.

Source: [Swedish Armed Forces](#)

March 29: The government prohibits public gatherings, indoors or outdoors, of more than 50 people.

Source: [Swedish Government](#)

March 30: The government tasks the Swedish Public Health Agency with developing a national strategy to rapidly increase COVID-19 testing. It tasks the National Board of Health and Welfare to support the 21 regions in coordinating available ICU beds, and to assist with increasing the number of ICU beds nationwide.

Source: [Swedish Public Health Agency](#), [Government of Sweden](#)

April 1: The government advises the general public to practice social distancing and take hygienic measures to prevent the spread of COVID-19. The government bans pharmacies from dispensing more medications than patients need for a three-month period. It also implements a ban on visits to care homes for elderly people.

Source: [Göteborgs-Posten](#), [Swedish Government](#)

April 2: Swedish health authorities clarify that sports and recreational activities are acceptable, as long as people keep their distance and that no more than 50 people are present.

Source: [Göteborgs-Posten](#)

April 3: The Ministry for Foreign Affairs extends travel advisory until June 15, recommending that Swedes avoid all non-essential travel to all countries.

Source: [Swedish Government](#)

April 3: The Swedish Armed Forces provide 30 intensive care units and 40 hospital beds at the Stockholm Fair in Älvsjö.

Source: [Swedish Armed Forces](#)

April 7: The government decides on a bill proposing that new powers be introduced into the Communicable Diseases Act. It would be a temporary amendment applicable from April 18 to June 30, 2020.

Source: [Swedish Government](#)

April 8: Swedish Minister of Defense Peter Hultqvist participates in an EU video conference of defense ministers to discuss COVID-19. Separately, Sweden begins using mobile data from Telia, a telecommunications company, to better understand how movement around the country has changed in response to COVID-19.

Source: [Swedish Government](#), [Göteborgs-Posten](#)

April 9: The government adopts a legislative amendment making it possible for the National Veterinary Institute to conduct COVID-19 diagnostic tests in people.

Source: [Swedish Government](#)

April 15: Sweden's Public Health Agency announces that 1,203 people have died from COVID-19 in Sweden, a rate of 118 per million inhabitants compared to 55 in Denmark and 13 in Finland, both of which imposed strict measures earlier in the pandemic than Sweden.

Source: [The Guardian](#)

April 16: The government extends until May 15 the temporary travel ban to Sweden from all countries except those members of the EEA and Switzerland. Separately, Swedish health authorities adjust guidance on sporting activities. Now, only children and young people born in 2002 or later are permitted to play sporting matches, regardless of whether it is training or a competition.

Source: [Swedish Government](#), [Göteborgs-Posten](#)

April 16: The Swedish Public Health Agency states that about one third of the total of 1,333 deaths from COVID-19 in Sweden were people who lived in nursing homes. In Stockholm, half of all deaths are from nursing homes.

Source: [SVT Nyheter](#)

April 17: The Swedish Public Health Agency presents the first version of a national strategy for increased sampling of COVID-19. To achieve the target picture, the analysis capacity would need to be increased to a total of 150,000 samples per week.

Source: [Swedish Public Health Agency](#)

April 21: Sweden's R-number – the so-called reproductive number – decreases to below 1.0, indicating that the spread of infection is decreasing. The R-number was 1.4 in early April and lowered to around 1.0 from April 10-20. From April 21-25, the R-number has been around 0.85, according to the Swedish Public Health Agency.

Source: [SVT Nyheter](#)

April 22: The National Public Health Agency of Sweden conducts a nationwide investigation of the occurrence of COVID-19 in the population, following a regional assessment conducted in Stockholm two weeks earlier. The Swedish Armed Forces assist in test collection. Overall, the investigation collects tests and questionnaire responses from 2,700 volunteers.

Source: [Swedish Armed Forces](#)

April 30: The Swedish city of Lund dumps one ton of chicken manure in its central park to deter its 30,000 residents from gathering there during holiday festivities for Walpurgis Night. At this time, Sweden has banned planned gatherings of more than 50 people; however, the festivities are classified as “spontaneous” and cannot be legally regulated by authorities.

Source: [The Guardian](#)

May 5: The government [updates](#) the national strategy to increase testing to clarify that the strategy describes support primarily during the pandemic phase of the COVID-19, when a large number of cases are being reported.

Source: [Swedish Public Health Agency](#)

May 13: The government extends until July 15 the temporary travel ban to Sweden from all countries except those members of the EEA and Switzerland.

Source: [Swedish Government](#)

June 2: The government advises regions that are entering a phase with fewer COVID-19 patients to return to the previous strategy of stopping the infection through testing everyone with symptoms and revamping contact tracing initiatives.

Source: [Västerbottens-Kuriren](#)

June 5: The government instructs the Swedish Public Health Agency to urgently ensure adequate supplies and deliveries of large-scale serological testing and PCR testing for COVID-19 throughout the country, in consultation with the county administrative boards and the regions.

Source: [Swedish Public Health Agency](#)

June 15: The government announces that secondary schools can return to regular, in-person instruction on school premises.

Source: [Swedish Government](#)

June 17: Act (2020: 526) on temporary infection control measures at places of service is issued.

Source: [Riksdagen](#)

June 18: Data shows that more than 80 percent of Swedish citizens are practicing social distancing, with more than 60 percent taking part in social activities to a lesser extent than they would under normal circumstances. Travel in the Stockholm capital region decreased by 40 percent following government advice against non-essential domestic travel in late March. Nationwide, domestic travel decreased by about 20 percent, before rising again following loosening of government recommendations on May 13.

Source: [Swedish Government](#)

June 24: The infection control doctor in the Dalarna region states that the novel coronavirus may have already existed in Sweden in December 2019. Several people sought care for respiratory symptoms at a health center in the region, all of whom had had contact with a person who came from Wuhan. Some of those people received positive antibody test results despite not having had symptoms of COVID-19 since December.

Source: [Läkartidningen](#)

June 30: The government appoints a committee of inquiry to evaluate the measures taken to limit the spread of COVID-19. The inquiry will evaluate how the crisis management organizations of the Government Offices, relevant administrative authorities, regions, and municipalities have functioned during the pandemic; evaluate how the responsibility principle and geographical area responsibility have functioned during the crisis; and present policy proposals. Interim reports are due on November 30, 2020, and October 31, 2021. The inquiry will submit its final report on February 28, 2022.

Source: [Swedish Government](#)

July 8: The government tasks the Public Health Agency of Sweden, the National Board of Health and Welfare, the Medical Products Agency, the Swedish Civil Contingencies Agency, and the county administrative boards to produce a plan for the event of new outbreaks of COVID-19 by September 1.

Source: [Swedish Government](#)

September 4: The Swedish Public Health Agency publishes the results of a survey on COVID-19 antibody incidence undertaken with Smittskydd Stockholm (Infection Control Stockholm) from June 22-24, which shows that 18.7 percent of the inhabitants of a district in Stockholm had detectable levels of antibodies.

Source: [Swedish Public Health Agency](#)

September 29: Norway's prime minister denies opening the borders up to neighbor Sweden because of their rising infections, and mentions that their cases are often coming from the Norway-Sweden border.

Source: [The Local](#)

October 1: The ban on visiting elderly care homes is lifted.

Source: [The Local](#)

October 13: The Swedish Public Health Agency decides that if an outbreak takes place in a specific region or part of one, local general councils may come into force.

Source: [Folkhälsomyndigheten](#)

October 16: Sweden confirms its first case of reinfection.

Source: [The Local](#)

October 19: Sweden's regional health authorities have been given increased powers to ask for stricter recommendations in response to local outbreaks. They are able to work with the Public Health Agency to issue general recommendations for specific regions. Previously, this was only possible at the national level.

Source: [The Local](#)

October 19: The Swedish Public Health Agency publishes amendments to the regulations on the individual's responsibility to prevent the spread of COVID-19. Regulations include actions such as hand-washing, avoiding direct contact with people, and staying at home when possible.

Source: [Folkhälsomyndigheten](#)

October 20: The Swedish Public Health Agency decides to give stricter general advice to Uppsala County, which is seeing a rapid increase in cases. Citizens are encouraged, but not required, to avoid any public transportation and avoid contact with anyone outside of their households. Businesses are advised to reduce the number of people in the office to one-half and encourage people to work from home when possible.

Source: [Folkhälsomyndigheten](#)

October 21: Sweden enforces a ban on gatherings of more than 50 people and special restrictions for places of service.

Sources: [Riksdagen](#), [The Local](#)

Legislation

Communicable Diseases Act and Communicable Diseases Ordinance (2004): The Communicable Diseases Act provides regulations on infection control measures for humans. It contains sections on preventative measures and notification of cases; investigation for disease cases; infection control measures; insulation; infection control doctors; and national vaccination programs, among others. The Communicable Diseases Ordinance provides supplementary regulations on notifiable diseases; registration; compilation and presentation of notification; and diseases subject to traceability, among others.

Source: [Riksdag](#), [Riksdag](#)

December - Act on Protection Against International Threats to Human Health (2006): This act contains provisions for the implementation of the World Health Organization's International Health Regulations adopted in Geneva on 23 May 2005 (the Health Regulations). An international threat to human health refers to a risk that infectious substances or other substances that constitute or may constitute a serious threat to human health are brought into the country or spread to other countries.

Source: [Riksdag](#)

Ordinance on the Distribution of Healthcare Materials as a Result of the Spread of the Disease COVID-19 (2020): This ordinance may be applied if necessary to prevent the spread of COVID-19 and to achieve a good working environment for staff in healthcare, social services, and other related activities, on the basis of Section 6 of the Communicable Diseases Act (2004).

Source: [Riksdag](#)

Ordinance on a Temporary Ban on Visits to Special Forms of Housing for the Elderly in Order to Prevent the Spread of the Disease COVID-19 (2020): This ordinance contains provisions aimed at preventing the spread of COVID-19 to persons staying in certain homes for the elderly, on the basis of Section 10 of the Social Services Act (2001). It prohibits visits to those who live in such housing, excluding those under the age of 18 if the operator of the home assesses that the risk of spreading COVID-19 in the home is low.

Source: [Riksdag](#)

Ordinance on State Subsidies to Regions and Municipalities to Financially Support Activities in Health Care and Social Services as a Result of the Disease COVID-19 (2020): This ordinance contains provisions on state subsidies to regions and municipalities to financially support their activities for additional costs as a result of COVID-19 within the health and medical care activities, and social services activities with regard to care for the elderly and people with disabilities.

Source: [Riksdag](#)

Temporary Authorizations in the Communicable Diseases Act Due to the Virus That Causes COVID-19 (2020): This [amendment](#) allows the government the right to issue regulations on special temporary measures effective April 18, 2020, to July 1, 2020. The regulations allow the government to temporarily limit public gatherings; close shopping malls and other shopping areas; close social and cultural meeting places; close or introduce limitations on transportation or

transportation infrastructure; and enable internal trade or the redistribution of medicine or protective materials and other medical equipment between private healthcare providers and other private actors, as well as other temporary measures.

Source: [Library of Congress](#), [Riksdag](#)

Italy

Summary

As the heart of the outbreak in Europe, Italy suffered heavy losses early in the course of the pandemic. In mid-February 2020, a 38-year-old man unknowingly spread the virus widely in the Lodi province of Lombardy, infecting hundreds, including healthcare workers, in the hospitals he visited. The healthcare system in Lombardy, a region with a rapidly aging population, quickly became overwhelmed and served as a warning to the rest of Europe.

Italy's overall mortality rate at the time of writing—59 deaths per 100,000 people—is relatively high when compared to other countries globally; within Europe, Belgium and Spain are the only countries to have higher mortality rate than Italy.²⁷ However, in the month of October 2020, Italy outperformed a number of its European neighbors on a different metric: the percentage of daily tests that are found to be positive for COVID-19. Amid a spike in cases in Europe, Italy's percent positive was actually lower than that of many European Union member states, including wealthy countries such as Austria and France. This percentage steadily decreased in Italy starting in mid-April 2020 – which is also when the country's weekly growth rate in confirmed deaths turned negative – suggesting that the country's response improved over time.²⁸ However, Italy's percent positive was still at a relatively high 16.10 percent as of November 15th, 2020, indicating that the government has yet to determine an effective approach.

Italy's failure to contain the virus and reduce mortality can largely be attributed to a breakdown in the chain of command between the central and regional governments, as well as poor inter-regional coordination and accountability. Italy's healthcare legislation, political tensions, and influenza pandemic strategy likely contributed to, or exacerbated, these issues.

Poor coordination between the central and regional governments emerges as a key factor in Italy's chaotic and ineffective initial response to COVID-19. Prime Minister Giuseppe Conte's government frequently blamed the regional governments for not imposing restrictive measures earlier, while regional authorities blamed Conte for delaying the implementation of a nationwide lockdown. This breakdown in coordination reflects both Italian law and political tension between Conte's government and those of certain regions where his party is not in power. Italian law dictates that the state determines general principles concerning health protection, while the regions have the authority to adopt detailed regulations.²⁹ The medical journal *The Lancet* notes that the pandemic “revealed problems inherent to Italy's decentralized health-care system.”³⁰ It continues,

²⁷ “Mortality Analyses,” Johns Hopkins University. November 15, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>.

²⁸ “Week by week change of confirmed COVID-19 deaths,” Our World in Data. November 15, 2020. Available from <https://ourworldindata.org/coronavirus-data-explorer?zoomToSelection=true&country=~ITA®ion=World&deathsMetric=true&interval=weeklyChange&smoothing=0&pickerMetric=location&pickerSort=asc>.

²⁹ Arianna Vidaschi, “Italy and COVID-19: A Call for an ‘Italian Emergency Constitution’?,” *Just Security*. May 12, 2020. Available from <https://www.justsecurity.org/70081/italy-and-covid-19-a-call-for-an-italian-emergency-constitution/>; Chiara De Cui, “How Italy Is Handling the Coronavirus,” *Lawfare*. March 6, 2020. Available from <https://www.lawfareblog.com/how-italy-handling-coronavirus>.

³⁰ Michele Usielli, “The Lombardy region of Italy launches the first investigative COVID-19 commission,” *The Lancet*. October 15, 2020. Available from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)32154-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32154-1/fulltext).

“Because different political parties represent the national government and the regional government of Lombardy, initial cooperation shifted quickly towards reciprocal blaming as the pandemic led to increased panic.” Regional guidelines sometimes deviated significantly from national guidelines, particularly in Lombardy, where COVID-19 deaths have accounted for half the national total and for one-third of the national total, despite the region representing only one-sixth of the country’s population.

Coordination between regions also proved to be a challenge in Italy, suggesting ineffective central leadership under Conte and the absence of a pre-determined system of regional cooperation. Varying policies and degrees of enforcement across regions certainly contributed to Italy’s failure to contain the virus in the north at the early stages of the country’s epidemic. When several northern Italian provinces announced an imminent lockdown, many people fled south, carrying the virus with them to regions where cases had been occurring in relatively isolated incidents. This failure to contain the virus from spreading between regions, combined with certain ill-advised regional decisions regarding patient management, contributed to the significant death toll in Italy.³¹ In addition, Italy’s national plan for responding to pandemic influenza fails to specify how discrepancies between national and regional regulations should be adjudicated, and how inter-regional variance should be resolved. The importance of streamlined national and regional strategies cannot be understated.

Another significant oversight in Italy’s pandemic strategy is that it did not articulate quarantine procedures or border control measures, either to prevent entry of a virus into, nor export of a virus out of, Italy. For comparison, the words “quarantine” and “isolation” appear only eight and nine times, respectively, in Italy’s strategy, compared to fifty-one and forty-two times, respectively, in Taiwan’s strategy.³² The word “border” appears just three times in Italy’s strategy and twenty times in Taiwan’s strategy. Italy’s strategic plan does not mention any border control procedures beyond the establishment of health checks at borders, while Taiwan’s plan discusses a number of components associated with border control, including the dissemination of health information to travelers; travel restrictions and border closures; arrival screening and quarantine; the management of incoming cases and their contacts; and departure control, among others. The exclusion of departure control from Italy’s national strategy is particularly notable; Italy served as an exporter of the coronavirus to several European neighbors.

We find in this report and our first report of the Biosecurity Project on COVID-19 that either a strict lockdown or the effective use of technology is necessary for a country to succeed in its response to COVID-19. While Italy eventually implemented a strict nationwide lockdown, the late timing of the lockdown in relation to the initial outbreak and the inconsistent enforcement of the

³¹ For instance, Lombardy’s regional government passed a decree in March allowing elderly COVID-19 patients to recover in nursing homes in order to free up hospital beds, which contributed to the high number of infections and deaths among the elderly in the region. For more information, see: Silvia Logar, “Care home facilities as new COVID-19 hotspots: Lombardy Region (Italy) case study,” *Archives of Gerontology and Geriatrics*, Vol. 89, 104087. Available from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7189837/>.

³² For Taiwan’s strategy, see: “Influenza Pandemic Strategic Plan - Third Edition,” Taiwan Centers for Disease Control and Prevention. July 2012. Available from <https://www.cdc.gov.tw/En/File/Get/w-5LDPRCt-nm3BacVaOWA>; For Italy’s complete strategy in Italian, see: “PIANO NAZIONALE DI PREPARAZIONE E RISPOSTA AD UNA PANDEMIA INFLUENZALE,” Government of Italy. 2005. Available from http://www.salute.gov.it/imgs/C_17_pubblicazioni_501_allegato.pdf; For Italy’s abridged strategy in English, see: “NATIONAL PLAN FOR PREPAREDNESS AND RESPONSE TO AN INFLUENZA PANDEMIC,” Government of Italy. 2005. Available from http://www.salute.gov.it/imgs/C_17_pubblicazioni_511_allegato.pdf.

lockdown decreased its effectiveness in reducing overall mortality and mitigating the spread of the virus. With regard to technology, the Italian government began using IMMUNI, a Bluetooth-based mobile app, in four pilot regions on June 8, 2020.³³ The app, which met strict European data privacy standards, was voluntary for citizens and used Bluetooth technology to notify users if they had come into contact with a person who tested positive for COVID-19. Though Italy and other European countries have rolled out similar voluntary initiatives, the culture in Europe favors data privacy and many have expressed a reluctance to participate in such initiatives – in contrast to the citizens of several Asian nations, who overwhelmingly participated in voluntary tracking initiatives.³⁴

³³ “Italy launches COVID-19 contact-tracing app amid privacy concerns,” *Reuters*. June 1, 2020. Available from <https://www.reuters.com/article/us-health-coronavirus-italy-app/italy-launches-covid-19-contact-tracing-app-amid-privacy-concerns-idUSKBN2383EW>.

³⁴ “Regulating Electronic Means to Fight the Spread of COVID-19: Italy,” Library of Congress. July 24, 2020. Available from <https://www.loc.gov/law/help/coronavirus-apps/italy.php>.

Italy - Timeline

1992

The Presidency of the Council of Ministers establishes the Italian National Committee for Biosafety, Biotechnology and Sciences of Life to direct science-based guidelines and policies governing the production of biologically active agents and ensuring public safety. The National Agency for Regional Health Services is also established. It supports national and regional health planning, compares the costs and efficiency of health care services, detects problems in managing health resources, and disseminates innovative approaches.

Source: [Italian National Committee for Biosafety and Biotechnology](#), [National Institutes of Health](#)

February 24: The National Civil Protection Service is established. It is devoted to foreseeing, preventing, and managing events or crises that may pose a safety risk to citizens. The Italian Civil Protection Service was not specifically created to investigate bioterrorism but contains resources for an integrated response.

Source: [Springer](#), [Library of Congress](#)

2004

The National Centre for Disease Prevention and Control (CCM) is established as a liaison between the Ministry of Health and regional governments. The CCM executes surveillance, prevention, and health emergency response activities. It primarily focuses on risk assessment and management while continuously monitoring infectious and contagious diseases and possible bioterrorism.

Source: [National Center for Biotechnology Information](#)

2005

Italy creates a pandemic preparedness [plan](#) modeled after the World Health Organization's 2005 plan, and in response to the h5N1 influenza virus. The plan mandates a central, coordinated plan for all regions. At the central government level, Italy is focused on the purchase of vaccines and antivirals.

Source: [Springer](#)

2009

April: The World Health Organization announces the first pandemic influenza alert for Influenza A(H1N1). The Italian government establishes a National Crisis Management Committee, headed by the Minister of Health, in charge of coordinating pandemic preparedness, response, and communication. Containment measures are implemented, including social distancing and the distribution of antiviral drugs to the regions. A transmission model is developed and monitored by the Committee.

Source: [Eurosurveillance](#)

April 24: The first imported case of H1N1 is detected in Italy.

Source: [Eurosurveillance](#)

June 11: The WHO Director-General raises the pandemic level to level 6.

Source: [Eurosurveillance](#)

July: The Ministry of Health changes the reporting requirements for H1N1 in accordance with WHO guidance. Pre-existing surveillance systems are expanded. By the end of July, approximately 250 imported cases and 2,000 suspected cases have been detected.

Source: [Eurosurveillance](#)

July 22: The Ministry of Health recommends the use of antiviral drugs only for severe cases of pandemic influenza and for symptomatic patients with underlying medical conditions.

Source: [Eurosurveillance](#)

September: A web-based data collection form for the surveillance of severe confirmed hospitalized cases and deaths is created in response to H1N1. Regional and local authorities completed the forms and delivered data to the national government, where it was analyzed by the Istituto Superiore di Sanità and the Ministry of Health. The Ministry of Health also creates a hotline and starts a health education campaign to inform the general population of non-pharmaceutical intervention measures.

Source: [Eurosurveillance](#)

September 30: The Ministry of Health identifies the priority categories of vaccine recipients before the vaccine became available and in accordance with Italy's National Pandemic and Preparedness Response Plan.

Source: [Eurosurveillance](#)

October: Another web-based data collection form is developed with details of the number of vaccine doses administered weekly to the target population by age, risk conditions, and region. Local authorities complete the form and aggregated at the national government for analysis.

Source: [Eurosurveillance](#)

October 31: A total of 1,286 cases have been included in the online surveillance database established in April, with reported symptom onset dates from the first imported case on April 24 to October 31.

Source: [Eurosurveillance](#)

2012

The Ministry of Health issues the National Immunization Prevention Plan 2012-2014 to harmonize vaccine strategies across the country as well as ensuring equal access for everyone. It defines the immunization standard in Italy.

Source: [National Library of Medicine](#)

2013

National Agency for Regional Health Services begins coordinating the Italian Network for Evidence-Based Prevention. This network, funded by the Ministry of Health, collects, synthesizes, and shares scientific evidence on the effectiveness of preventive interventions.

Source: [National Institutes of Health](#)

2014

April 4: The Italian Ministry of Health issues a Circular in response to the Ebola outbreak in West Africa recommending that surveillance actions be taken for incoming travelers, specifically from Guinea and nearby countries.

Source: [Library of Congress](#)

May 14: The Italian Chamber of Deputies hosts a parliamentary debate reviewing the country's handling of Ebola and its healthcare preparedness capabilities. Following the debate, the Health Ministry requires immigrants arriving in Italy to submit to clinical evaluations to assess their exposure to Ebola.

Source: [Library of Congress](#)

October 14: Italy's National Institute for Infectious Disease updates its "Operational Procedures for the Management of Suspected, Probable, or Confirmed Cases" and "Contacts of the Ebola Virus Disease in Western Africa." Changes include: 1) describing the Ebola virus disease; 2) regulating the treatment of Ebola patients; and 3) outlining treatment levels for those infected, ranging from sanitation to surveillance.

Source: [Library of Congress](#)

2015

March 15: The Ministry of Health publishes the National Prevention Plan 2014-2018. It has six overarching statements; affirm the crucial role of healthcare in the public's eyes, ensure the public health approach ensures equity and addresses inequality, put the public and the individual at the center of attention, base interventions for prevention, promotion, and health protection on the best available evidence, maintain cost effectiveness, and promote a culture that is accepting of learning new skills to allow for all resources to be used effectively.

Source: [Ministry of Health](#)

December 3: The Ministry of Health renews Italy's commitment to the 2010 WHO National Plan for the Prevention from Viral Hepatitis from Viruses B and C. The updated plan has five focal points: epidemiology, prevention awareness, information training, treatment accessibility, and social impact. The management model has three steps: identification of priority areas of intervention, full adherence to the WHO guidelines, and centralized coordination and monitoring of the plan implementation and effectiveness.

Source: [Ministry of Health](#)

2017

January 23: The Ministry of Health publishes the National Plan for Vaccine Prevention 2017-2019, which builds off the prior 2012-2014 plan. It expands the amount of vaccines it offers, enlarges the target population, and introduces a “lifetime immunization schedule” which is aimed at lowering costs both organizationally as well as for the individual.

Source: [Ministry of Health](#)

June 8: The Ministry of Health issues the “vaccine prevention decree” which officially makes ten vaccinations mandatory for minors ages 0-16. It includes diphtheria, tetanus, whooping cough, poliomyelitis, hepatitis B, measles, rubella, mumps, meningococcus, and the chickenpox.

Source: [Ministry of Health](#)

July 24: The Ministry of Health and the Higher Institute of Health publish “recommendations for congenital ZIKA virus syndrome”. The main objective of this is to provide guidance for surveillance, clinical management, and follow up on children with congenital ZIKA virus syndrome.

Source: [Ministry of Health](#)

October 31: The Ministry of Health publishes the National HIV and AIDS Prevention Plan. The primary objectives are to ensure care for all, make access to tests easy, promote the maintenance of diagnosed and treated patients, protect the social and labor rights of those infected, promote the fight against stigma, and promote empowerment and active involvement of populations impacted.

Source: [Ministry of Health](#)

2019

April 18: The Ministry of Health publishes the National Plan for Preparation and Response to a Polio Outbreak, requested by the WHO due to the rising number of cases in Central Asia and Africa. The purpose of the plan is to define, plan, and coordinate the actions to be taken in case of a Polio outbreak.

Source: [Ministry of Health](#)

2020

January 22: A coronavirus task force is established at the Italian Ministry of Health.

Source: [Italian Government](#)

January 25: The Ministry of Health issues preventative measures.

Source: [Italian Government](#)

January 27: Italy bans incoming flights from China at domestic airports.

Source: [Italian Government](#)

January 30: The World Health Organization declares an “international public health emergency.”

Source: [Italian Government](#)

January 31: The first two cases of COVID-19 in Italy are confirmed in Rome. Conte chairs a meeting of the Civil Protection Operating Committee to coordinate interventions to protect the health of citizens. He declares a national emergency for six months and suspends flights to China. The Council of Ministers appoints Angelo Borrelli, the Head of Civil Protection, as Special Commissioner for the COVID-19 emergency.

Source: [Italian Government](#)

February 1: The Civil Protection Operational Committee meets to evaluate all of the operational scenarios associated with the current spread of the virus and to prepare short-term measures for adoption, specifically policies related to air and sea traffic. Present at the meeting were the leaders of the Ministry of Health, all the components and operational structures of the national civil protection service, local authorities and representatives of the Italian civil aviation authority, and the main management companies of the country's airport hubs.

Source: [Protezione Civile](#)

February 2: Italian scientists isolate the genetic sequence of the novel coronavirus.

Source: [EuroNews](#)

February 3: Angelo Borrelli, head of the Civil Protection Department, signs an ordinance for the first urgent interventions intended to mitigate the risk of the novel coronavirus. It entrusts Borrelli with coordinating the interventions necessary to handle the national emergency, strengthening airport and port controls, organizing activities for the return of Italians present in at-risk countries and the repatriation of foreign citizens to their countries of origin.

Source: [Italian Government](#)

February 4: The COVID-19 task force within the Ministry of Health decides, together with the Civil Protection Department, to strengthen controls and increase doctors and medical personnel in airports and ports. "Health terminals" and thermal scanners are activated on all arrivals to Rome Fiumicino airport.

Source: [Ministry of Health](#)

February 6: Conte chairs a meeting of the Civil Protection Operational Committee. By this point, the Civil Protection force volunteers have "monitored and controlled" over 62,000 passengers and 521 international flights.

Source: [Italian Government](#)

February 10: An interagency meeting is held - chaired by Conte - and attended by the Head of the Civil Protection Department and the Undersecretaries of the Interior and Economic Development, along with the Ministers of Health; Foreign Affairs and International Collaboration; Economy and Finance; Cultural Heritage, Activities, and Tourism; and Defense.

Source: [Italian Government](#)

February 20: A man in Lombardy tests positive in the first case of community spread in Italy. He is believed to have spread the disease widely before developing severe symptoms.

Source: [Axios](#), [New York Times](#)

February 21: The Ministry of Health issues new mandatory quarantine measures and active surveillance for those who have been in at-risk areas within the last 14 days.

Source: [Italian Government](#)

February 22: Conte calls a meeting of the Council of Ministers at the Civil Protection. They adopt Decree Law No. 6., which established immediate measures to contain the virus.

Source: [Italian Government](#)

February 23: 11 small towns in the regions of Lombardy and Veneto - about 50,000 people - hit by the outbreak are placed under quarantine with military and police checkpoints.

Source: [Axios](#), [New York Times](#), [Italian Government](#)

February 24: Prime Minister Giuseppe Conte attributed the high number of infections to aggressive testing in the Lombardy and Veneto regions, saying that they had diverged from global guidelines by testing people without symptoms.

Source: [New York Times](#)

February 25: Conte chairs a meeting with regional presidents at the operational headquarters of the Civil Protection Department.

Source: [Italian Government](#)

February 28: The Council of Ministers approves legislation to provide urgent support for families and workers impacted by the health emergency.

Source: [Italian Government](#)

March 1: The Council of Ministers divides Italy into three zones: a red zone, in which the populations are placed under quarantine; a yellow zone, in which certain social and sporting activities are suspended and schools remain closed; and the rest of the national territory, where sanitary measures are taken to mitigate the virus spread.

Source: [La Repubblica](#), [Italian Government](#)

March 2: The Italian National Institute of Health recommends that two towns in the Bergamo province of Lombardy - Alzano and Nembro - be sealed off, but the political authorities do not implement the recommendation. The virus continues to spread until the entire region of Lombardy is placed under lockdown by the national government on March 7. When asked why he did not quarantine Bergamo earlier, Conte stated that the regional government could have done so. Lombardy governor Attilio Fontana responded that any mistake “was made by both. I don’t think that there was blame in this situation.”

Source: [Associated Press](#)

March 3: Conte and other government ministers meet with leaders of the majority and opposition group parties. In attendance are the Ministers of Foreign Affairs; Parliamentary Relations; Justice; Agriculture; Cultural Heritage and Tourism; and Undersecretary of the Council of Ministers.

Source: [Italian Government](#)

March 4: All schools and universities are closed from March 5 to March 15, following a meeting between Conte and the Minister of Education. Conte's government also meets with local representatives regarding the management of COVID-19.

Source: [Italian Government](#)

March 5: The Council of Ministers approves the "Report to Parliament for 2020," which includes a package of measures providing for an increase in the resources allocated to the public health system, the civil protection system, and the police. It also allocates financial assistance to address social and economic hardships.

Source: [Italian Government](#)

March 7: Several northern provinces - about one quarter of Italy's population - are placed under lockdown. Northern Italians flee south in large numbers. Some regional governments require those coming from the lockdown regions to quarantine upon arrival, while others do not. Giulio Gallera, Lombardy's top healthcare official, said that the Conte's decree had fostered "doubts" among citizens. At this point, 7,375 people have tested positive for COVID-19 and 366 have died in Italy.

Source: [Axios](#), [New York Times](#), [New York Times](#)

March 8: Lombardy's regional government issues a decision allowing recovering COVID-19 patients to be placed in nursing homes to free hospital beds.

Source: [Associated Press](#)

March 9: Italy becomes the first European nation to announce a nationwide lockdown. The Interior Ministry publishes "auto-certification" forms that anyone traveling to or from locked-down areas must fill out and present when asked by authorities. Riots break out in 27 prisons, with guards held hostage and several inmates dying, in part because the lockdown decree banned jail visits and day-release programs.

Source: [New York Times](#), [Associated Press](#)

March 10: Conte meets representatives from the opposition parties.

Source: [Italian Government](#)

March 11: All restaurants and bars are closed. Most commercial and retail activity is suspended, aside from supermarkets and pharmacies.

Source: [Axios](#), [Washington Post](#)

March 19: Italy surpasses China as the nation with the most COVID-19-related deaths. The Presidency of the Council of Ministers, along with the Civil Protection Department and the Ministry of Regional Affairs, creates a voluntary task force of 300 doctors from around the country to be sent to the most affected areas.

Source: [Italian Government](#)

March 20: The Minister of Health signs an ordinance prohibiting public access to outdoor common areas, such as parks or other recreational areas. People are not permitted to go to homes other than their own, including to their second homes. Italy records its highest daily increase in the

number of deaths attributed to COVID-19, with 627 deaths in 24 hours. The total now stands at 4,032.

Source: [Italian Government](#), [Associated Press](#)

March 22: Factories are closed and all nonessential production is halted.

Source: [Axios](#)

March 24: Conte announces a new government decree which prescribes steep fines for those who break quarantine restrictions. The penalty for being outdoors in a public space without a legitimate reason increases from 206 euros to 400-3,000 euros. The Italian police are permitted to confiscate cars and other vehicles.

Source: [The Local](#)

March 30: Lombardy's regional government issues a decree instructing nursing homes not to hospitalize residents over the age of 75 for COVID-19, in an effort to ease pressure on the region's limited number of ICUs.

Source: [Associated Press](#)

March 31: Lombardy's governor - a member of the opposition right-wing League Party - unveils a 21 million euro (\$23 million) 200-bed field hospital on the grounds of Milan's convention center intended to ease pressure on regional ICUs. The national Civil Protection Department opposed the plan, preferring smaller field units set up outside of hospitals. The hospital is underutilized, only treating a few dozen patients.

Source: [Associated Press](#)

April 1: Italy extends lockdown until April 13, while recording its lowest death toll in more than one week.

Source: [The Guardian](#), [Gazzetta Ufficiale](#)

April 7: The region of Lombardy accounts for 55 percent of Italy's 16,500 COVID-19 deaths and 39 percent of its 132,547 confirmed cases.

Source: [Reuters](#)

April 10: Conte sets up a committee of experts in economic and social matters with the task of developing proposals to guide government decision-making as it restarts the production system. This committee of experts works in concert with the Technical-Scientific Committee. He also announces that the restrictive measures adopted thus far to combat COVID-19 will be further extended until May 3.

Source: [Italian Government](#)

April 19: The Civil Protection has distributed to the various regions approximately 3,900 ventilators, 105,000 endotracheal tubes, and 117 million masks of various types.

Source: [Italian Government](#)

April 26: Conte announces an easing of restrictions starting on May 4. People are permitted to move within their regions, but not between regions. Schools will not restart until September, but

some social, sporting, and commercial activities resume with restrictions to mitigate the spread of the coronavirus. The government caps the price of face masks to £0.44 (\$0.54).

Source: [BBC News](#), [Italian Government](#)

April 27-28: Conte travels to meet with health sector representatives in Milan, Bergamo, Brescia, Lodi, Piacenza, and Cremona.

Source: [Italian Government](#)

May 13: The Council of Ministers approves legislation to strengthen and support hospitals nationwide. A fund is set up by the Ministry of the Interior with an endowment of 3.5 billion euros to be divided between the municipalities, provinces, and metropolitan cities. A fund of 12 billion euros is established in the Ministry of Finance for debt payments in the regions and autonomous provinces.

Source: [Italian Government](#)

May 15: The Council of Ministers approves legislation outlining a national regulatory framework effective from May 18 to 31 July 2020, with specific ordinances governing the movement of people and conduct of economic activities at the regional and municipal levels.

Source: [Italian Government](#)

June 3: Interregional travel resumes.

Source: [Italian Government](#)

June 9: The committee of economic and social experts presents a [report](#), titled, “Initiatives for Relaunch ‘Italy 2020-2022,’” to Conte.

Source: [Italian Government](#)

June 15: A variety of social activities resume with precautionary measures.

Source: [Italian Government](#)

July 14: Conte extends measures of the decree passed on June 11 to July 31.

Source: [Italian Government](#)

July 30: The Council of Ministers approves legislation extending decree laws 19 and 33 from July 31 to October 15, 2020.

Source: [Italian Government](#)

August 7: Italy records 552 confirmed cases of COVID-19, surpassing the 500 mark for the first time since late May. The country has maintained an average daily number of new cases around 200 for several weeks. The northeastern region of Veneto recorded about one third of the new cases, which the governor attributed to residents who had recently returned from vacation in Spain, Peru, Malta, Croatia, and Greece.

Source: [Associated Press](#)

August 7: The President of the Council of Ministers extends the decree of March 25 regarding general safety guidelines, with added planning for the possibility of slightly opening up. Minimum precautionary measures are extended to September 7.

Source: [Italian Government](#)

August 27: Commissioner Arcuri signed ordinance no. 19, “further provisions on the importation of goods to deal with the covid-19 emergency.

Source: [Italian Government](#)

September 3: The Council of Ministers approve a law to tend to non-postponable needs. These include a smooth start to the school year, reshape the public transportation methods and rules to limit the spread, and putting in financial support measures for the suffering municipalities of Lampedusa and Linosa.

Source: [Italian Government](#)

September 4: The Director General for Prevention of the Ministry of Health, Giovanni Rezza, restates the importance of following guidelines such as social distancing and using masks, because cases are on the rise, mostly due to returning tourists.

Source: [la Repubblica](#)

September 4: The national transmission index calculates that there has been a rise in symptomatic cases versus asymptomatic diagnosed within the country, but only a slight increase in the number of those admitted to healthcare facilities or intensive care.

Source: [la Repubblica](#)

September 10: The Council of Ministers approve laws regarding multiple concerns. Adding urgent measures to guarantee safety at polling locations is the top priority.

Source: [Italian Government](#)

October 7: The Council of Ministers extends the state of emergency to January 31, 2021, and approved new measures regarding masks; they now need to be worn indoors and outdoors, unless it is within a private residence. Regions may introduce more restrictive measures.

Source: [Italian Government](#)

October 14: “The Ordinance of the Extraordinary Commissioner for the implementation and coordination of the containment and contrast measures of the epidemiological emergency COVID-19” is published.

Source: [Italian Government](#)

October 17: The Council of Ministers approve a decree that extends the pause on the Debt Collection Agency: due to the extenuating circumstances people will not currently be receiving new notifications of debt, nor held to their current payments. This is extended until December 31.

Source: [Official Gazette of the Italian Republic](#)

October 18: The Prime Minister and the Health Minister, Roberto Speranza, signed a decree putting in place new limits, due to the rising number of cases in the recent weeks. These include

the mayor having the ability to enforce a curfew, schools may stay open with added safety measures, all conference and congress meetings are postponed unless they're scheduled virtually, except if there is a special circumstance. There are many other restrictions put in place for the public as well, ranging from sports to hairdressing.

Source: [la Repubblica](#), [la Repubblica \(Italian decree\)](#)

October 19: Within recent weeks, the virus has begun circulating around the country. All regions except one have new cases. There is an increase in the number of new cases outside of known transmission chains. There has also been an increase of hospitalizations.

Source: [Italian Government](#)

October 24: The new Prime Ministers Decree regarding urgent actions against COVID-19 will be enforced from October 26 to November 24. The closure of public places is set at 6pm, schools continue to move online, travel between regions remains open, and all people are urged to not use public transport except for work, school, or health reasons.

Source: [Corriere Della Sera](#)

October 26-November 1: The Ministry of Health announces the situation overall and widely very serious throughout the national territory with critical issues now evident in numerous Italian Regions /PA. Transmission speeds have reached scenario 4, the Higher Health Institute's (ISS) highest tier of response to the virus when lockdowns at a local or national level are considered.

Source: [Ministry of Health](#)

November 10-11: Roberto Speranza, the Minister of Health, issues the "Further urgent measures regarding the containment and management of the epidemiological emergency from COVID-19 (20A06211)" ordinance. The ordinance places the region's into three color-coded zones indicating the severity of infection and transmission. Yellow is medium risk, orange is higher risk and triggers level 3; red is the highest risk and triggers level 4). Campania, Emilia Romagna, Friuli Venezia Giulia, Lazio, Marche, Molise, Autonomous Province of Trento, Sardinia, and Veneto in yellow areas; Abruzzo, Basilicata, Liguria, Puglia, Sicily, Tuscany, Umbria in orange areas; Calabria, Lombardy, Piedmont, Valle d'Aosta, Autonomous Province of Bolzano in red areas. The ordinance goes into the effect on November 11.

Source: [Ministry of Health](#)

Italy - Legislation

Establishment of the National Health Service (1978): This law established Italy's National Health Service (NHS) under the Ministry of Health, based on the model of the British NHS. Italy's NHS is responsible for ensuring the sanitary and epidemiological well-being of the population. Central and local governments are jointly responsible for implementation of the NHS. This law assures the coordination of all activities and interventions of agencies, institutions, and services that perform any duty concerning individual and collective health.

Source: [Library of Congress](#), [Normattiva](#), [Springer](#)

Law 225 (1992): This law created the National Service of Civil Protection, with the job of "protecting the integrity of life, the heritage, the settlements and the environment from damage or from the danger of damage deriving from natural calamities, from catastrophes and other calamitous events." The Civil Protection structure is reorganized as a coordinated system of competences provided by the administrations of the State, the Regions, the Provinces, the Municipalities, and other local public and private authorities. It follows the so-called "Augustus method," which formalizes the steps to be taken by the various authorities.

Source: [Protezione Civile](#), [Springer](#)

Conferral of Functions and Administrative Tasks of the State to the Regions and Local Authorities (1998): This law allows the regional and local authorities urgent interventions in cases of health emergencies can be made by regional and local authorities. The intervention of the central government authorities takes precedence according to the relevance and the magnitude of the emergency.

Council of Ministers Resolution (2020): Italy's Council of Ministers declared a six month state of emergency on national territory related to the health risk from diseases spreadable through "transmissible viral agents."

Source: [Governo Italiano](#)

Lombardy Ordinance (2020): This was the first ordinance in Italy issued towards "at risk" towns. It suspended public gatherings (including religious gatherings), commercial activities, sporting events, schools, public transportation, and work activities except for essential services.

Source: [Lawfare](#)

Decree-Law No. 6, containing Urgent Measures to Contain and Manage the Epidemiological Emergency Caused by COVID-19 (2020): The President of Lombardy extended the February 21 ordinance. This legislation listed measures aimed at containing the nascent spread of COVID-19, which included prohibition of removal and entry of persons into affected areas; suspension of all public events of any type; application of quarantine measures; and the suspension of commercial and work activities, except those that are deemed essential or able to be performed from home. The decree appropriated 20 million Euros to finance the measures.

Source: [Library of Congress](#), [Gazzetta Ufficiale](#)

Decree of the President of the Council of Ministers, on Further Provisions Implementing Decree-Law No. 6 of February 23, 2020: This decree enumerates urgent measures to contain

COVID-19 in the region of Lombardy and 14 provinces, along with the entire national territory. It enumerates measures concerning information and prevention, including the requirement that health officials follow guidelines concerning pandemics established by the World Health Organization and the Italian Health Ministry.

Source: [Library of Congress](#), [Gazzetta Ufficiale](#)

Decree of the President of the Council of Ministers (2020): This decree approved measures to contain the spread of the novel coronavirus throughout the country, including a prohibition on any form of public gatherings and the suspension of sporting events, aside from international sporting events or training which was required to be held in non-public settings and under strict health and safety regulations.

Source: [Italian Ministry of Foreign Affairs](#)

Ministry of Interior Directive on “Checks in the Reinforced Containment Areas” (2020): This directive was addressed to the administrators of Italy’s provinces and metropolitan cities throughout the national territory. It issued an immediate call to the Provincial Committees to establish public order and safety, and provided specific instructions for controlling the movement of persons into and out of containment areas. It also provided guidance on Schengen and non-Schengen flight departures and arrivals.

Source: [Library of Congress](#), [Italian Ministry of the Interior](#)

Decree-Law No. 19 (2020): This decree raised fines for violations of the lockdown measures applicable to the entire country, including a five year maximum incarceration penalty to those who violate quarantines after testing positive for COVID-19. The decree also allowed presidents of the regions to impose even more restrictive measures in their territories, to be validated within seven days by decree of the President of the Council of Ministers.

Source: [Library of Congress](#), [Gazzetta Ufficiale](#)

Decree-Law No. 22 (2020): This decree puts in place urgent measures for a smooth end to the current school year and a smooth beginning to the next, as well as putting measures in place to guarantee that all students’ needs are being met in an equal way. It also discusses how to safely conduct state exams.

Source: [normattiva: il Portale Delle Legge Vigente](#)

Decree of the President of the Councils of Ministers (2020): The Committee of experts in economic and social matters is established. They are tasked with relaying information and proposing new measures to deal with COVID-19, as well as the gradual recovery in the social and economic sphere.

Source: [Italian Government](#)

Decree-Law No. 28 (2020): Measures regarding the penitentiary system are both extended and added to, in order to ensure the safety of people while still maintaining the law. Measures are also put in place to further advance and regulate wire-tapping and other methods of communication. Lastly measures are put in place regarding how to introduce the COVID-19 alert system.

Source: [Normattiva: il Portale Delle Legge Vigente](#)

For a complete list of legislation in Italy related to COVID-19, see:
<https://www.gazzettaufficiale.it/attiAssociati/1/?areaNode=12>

Brazil

Summary

There is widespread consensus among the medical, academic, and political communities that Brazil has struggled to find success in its response to the COVID-19 pandemic. By early November 2020, Brazil had registered more than five and a half million confirmed infections and over 160,000 deaths due to COVID-19. Brazil has one of the highest mortality rates in the world, with about 76 deaths per 100,000 people. In addition, its health sector has been heavily impacted – more nurses have died from COVID-19 in Brazil than in any other country.³⁵ Despite the country's universal healthcare system and community-based primary care model, Brazilians have struggled with access to care.³⁶ And yet, Brazil had an effective start to mitigating the spread of COVID-19.

From early January through about mid-March 2020, Brazil's Ministry of Health was actively and effectively responding to the developing pandemic. On January 10, it activated an events monitoring committee and an emergency operations committee. The Ministry convened an inter-ministerial executive group with representatives from across the federal government, as well as an intergovernmental group to connect with state and regional governors. It submitted a quarantine bill to Congress, which President Jair Bolsonaro signed into law. All of this took place prior to Brazil's first confirmed case of COVID-19 on February 26, 2020, after which the Ministry launched a public prevention campaign, expanded testing requirements for COVID-19, and introduced measures to strengthen hospitals.

But in mid-March, power reportedly shifted from the Ministry of Health to Casa Civil – the office of Bolsonaro's chief of staff – within 24 hours after the Ministry had released new guidance for combatting COVID-19.³⁷ Sources suggest that Casa Civil, led by Army general Walter Souza Braga Netto, intervened and that the Ministry watered down its guidance. Casa Civil then reportedly set up a separate interministerial group to supersede the group established by the Ministry of Health.

Ministry of Health officials began resigning; some were fired by Bolsonaro. Military generals without experience in public health ascended to positions of power.³⁸ Bolsonaro took a posture of denying the seriousness of the virus, and began holding political rallies where he flouted social distancing guidelines set by his own administration. Even when he tested positive for COVID-19 in early July 2020, he nonetheless downplayed its significance.

³⁵ Christina Farr, "Brazil turned the coronavirus into a political football, with devastating results," *CNBC*. July 22, 2020. Available from <https://www.cnn.com/2020/07/22/brazil-politics-mixed-messages-hurt-response.html>.

³⁶ Lorena G. Barberia and Eduardo J. Gomez, "Political and institutional perils of Brazil's COVID-19 crisis," *The Lancet*. July 30, 2020. Available from [https://www.thelancet.com/article/S0140-6736\(20\)31681-0/fulltext](https://www.thelancet.com/article/S0140-6736(20)31681-0/fulltext).

³⁷ Stephen Eisenhammer and Gabriel Stargardter, "Special Report: Bolsonaro brought in his generals to fight coronavirus. Brazil is losing the battle," *Reuters*. May 26, 2020. Available from <https://www.reuters.com/article/us-health-coronavirus-brazil-response-sp/special-report-bolsonaro-brought-in-his-generals-to-fight-coronavirus-brazil-is-losing-the-battle-idUSKBN2321DU>.

³⁸ Ernesto Londoño, "Another Health Minister in Brazil Exits Amid Chaotic Coronavirus Response," *New York Times*. May 15, 2020. Available from <https://www.nytimes.com/2020/05/15/world/americas/brazil-health-minister-bolsonaro.html>.

Throughout the initial response to the pandemic, Bolsonaro has downplayed his responsibility for the welfare of his people.³⁹ State governors and local community leaders, oftentimes without adequate resources, particularly in impoverished, rural communities were at a loss to respond in effective ways.

While an up-to-date version of Brazil's pandemic influenza plan is not publicly available, a draft version of a 2005 strategic document produced by the Ministry of Health demonstrates that Brazil likely had a pre-existing strategy before the COVID-19 pandemic.⁴⁰ This 2005 strategy incorporated the World Health Organization's pandemic strategy and adapted them to the Brazilian context. It contains chapters on Brazil's health surveillance structure; the four phases of a pandemic and associated plans for human surveillance, laboratories, health services/hospitals, and immunization; and the government's plan for the publication and application of legislation related to the pandemic. Brazil's strategic document focused heavily on the public health system response, but lacked more comprehensive guidance on topics like entry and exit from the country, or how to control the spread of influenza for those cases that are not so severe as to require hospitalization. In addition, this strategy notably did not incorporate the role of the Brazilian people in countering the pandemic, which proved to be key components of Taiwan's strategy.

Due in large part to Bolsonaro's prioritization of the economy over public health, Brazil did not implement a nationwide lockdown nor did the government introduce advanced technological mechanisms for monitoring the spread of COVID-19. The mayors of some major cities in Brazil enforced lockdowns and other restrictive measures, but their effectiveness has been diminished by the absence of a national response.⁴¹ Despite the demonstrated need for a more stringent approach, Bolsonaro declared in late October 2020 that he did not agree with other countries' decisions to impose mandatory lockdowns in order to prevent second waves of COVID-19. At the time of writing, Brazil has yet to flatten the curve.

Brazil Timeline

1975

October 30: The Ministry of Health creates the National System for Epidemiologic Surveillance (Sistema Nacional de Vigilância Epidemiológica, SNVE).

Source: [Library of Congress](#)

1977

The Ministry of Health creates the first [Epidemiological Surveillance Manual](#), which consists of technical norms for infectious disease surveillance. The manual was last updated in 2009.

Source: [Library of Congress](#)

³⁹ Tom Phillips, "So what?": Bolsonaro shrugs off Brazil's rising coronavirus death toll," *The Guardian*. Available from <https://www.theguardian.com/world/2020/apr/29/so-what-bolsonaro-shrugs-off-brazil-rising-coronavirus-death-toll>.

⁴⁰ "Brazil's Contingency Plan to Confront an Influenza Pandemic - Preliminary Version," Pan American Health Organization. September 2005. Available from https://www.paho.org/hq/dmdocuments/2010/Nipp_brasill_english.pdf.

⁴¹ David Biller and Mauricio Savarese, "Brazil cities lurch to lockdowns amid virus crisis red flags," *The Associated Press*. May 12, 2020. Available from <https://apnews.com/article/51e0ad7ee7d1ce702bdf887df466d047>.

1990

April 12: The National Health Foundation, or FUNASA, is created as a subset of the Ministry of Health. It focuses on promoting sanitation practices and disease prevention. FUNASA also supports the programs of the National Sub-System of Environmental Health Surveillance.

Source: [Library of Congress](#)

August 31: The National Health Foundation creates the Rapid Response Center for Epidemiologic Emergencies (Núcleo de Resposta Rápida em Emergências Epidemiológicas, NUREP) to act in the following cases: epidemics that go beyond the limits of a state; epidemics of emerging diseases; introduction into the country of an infectious agent that had been eradicated or did not previously exist; and epidemics of diseases that are part of the International Sanitary Regulation.

Source: [Library of Congress](#)

September 19: The United Health System (SUS) is established as the principal health organization responsible for epidemiologic surveillance in Brazil.

Source: [Library of Congress](#)

2000

August 31: FUNASA creates the Rapid Response Center for Epidemiological Emergencies which is responsible for epidemics that go beyond the limits of one of Brazil's 27 federal states, epidemics of emerging diseases, introduction into the country of an infectious agent that had been eradicated or did not previously exist, epidemics of diseases that are part of the International Sanitary Regulation, epidemics characterized by an expansion to areas without previous occurrences, and floods, droughts, or other calamities and/or disasters relevant to public health when insufficient action is demonstrated by a municipality or state.

Source: [Ministry of Health](#)

2003

April 3: The first probable case of SARS is reported in Brazil.

Source: [WHO](#)

May 17: Only two cases of SARS remain in Brazil after a total of thirty probable cases were reported.

Source: [Elsevier Public Health Emergency Collection](#)

2008

January 18: Brazil's Ministry of Health requests an additional 4 million doses of yellow fever vaccine.

Source: [WHO](#)

February 1: Brazil reports 48 cases of yellow fever and 13 deaths.

Source: [WHO](#)

2009

April 25: Brazil's Ministry of Health employs influenza surveillance protocols in accordance with WHO recommendations, including contact tracing. The Ministry of Health announces it would monitor airports and international travelers from affected areas with the help of the National Health Surveillance Agency (ANVISA). The Permanent Emergency Office is established in the Center for Strategic Information and Responses in Health Surveillance of the Health Surveillance Secretariat of the Ministry of Health to monitor the situation and make appropriate recommendations.

Source: [Ministry of Health](#), [Reports in Public Health Journal- Brazil](#)

May 7: The first four cases of H1N1 are confirmed in Brazil.

Source: [Reuters](#)

June 11: The Minister of Health confirms that there are 55 cases of H1N1 in Brazil.

Source: [Ministry of Health](#)

June 14: The Ministry of Health states that H1N1 transmission is not sustained since the Brazilian Health System has closely monitored everyone that has come into close contact with infected people.

Source: [Globo](#)

June 28: Brazil records its first death due to H1N1, as cases rise to 680.

Source: [Ministry of Health](#)

July 16: Public health officials declare sustained influenza transmission on a national scale, as the majority of imported cases arrive from the United States, Argentina, and Chile.

Source: [Reports in Public Health Journal- Brazil](#)

August 22: Brazil's Ministry of Health confirms that Brazil has registered the largest number of deaths from H1N1. The Ministry states that they have requested \$2.1 billion from the National Congress to purchase vaccines, treatments, equipment, ICU beds, and training for healthcare workers.

Source: [Globo](#)

2010

January 2: 2,051 deaths due to H1N1 have been reported in Brazil since July 19, 2009. The Brazilian government and Ministry of Health continue to promote prevention practices, but have eased surveillance and extracurricular restrictions for students.

Source: [Emerging Infectious Diseases](#)

2014

June 23: Brazilian authorities detect poliovirus type 1 (WPV1) in São Paul sewage systems. After hearing this news, authorities greatly enhance surveillance procedures designed to track cases. However, the WHO considers Brazil to have “low national routine immunization coverage,” making them more susceptible to potential outbreaks.

Source: [WHO](#)

October 11: Brazil’s first possible Ebola case tests negative.

Source: [BBC](#)

October 31: Brazil implements screening measures similar to the United States and the United Kingdom in order to monitor travelers from Liberia, Sierra Leone, and Guinea.

Source: [Ministério da Saúde](#)

August 24: Brazil sends five supply kits of Ebola aid to Sierra Leone. Each kit helps 500 people.

Source: [EBC Brazil](#)

December 4: By December, Brazil has donated \$9.76 million to Ebola relief efforts.

Source: [EBC Brazil](#)

2015

April 29: Brazilian health officials share a report from the Bahia State laboratory that samples have tested positive for the Zika virus.

Source: [Pan American Health Organization](#)

May 22: Brazil’s first case of Zika is confirmed in Sao Paulo.

Source: [Pan American Health Organization](#)

October 8: Zika virus cases have been confirmed in 14 states in Brazil.

Source: [WHO](#)

November 11: Brazilian officials declare a National Public Health Emergency due to the increase in cases of Zika syndrome.

Source: [Pan American Health Organization](#)

November 17: Cases of microcephaly, the birth defect caused by Zika virus, have reached 399.

Source: [WHO](#)

December 31: 1,608 cases of Zika virus were reported in Brazil in 2015.

Source: [BMJ Global Health](#)

2016

February: The WHO declares Zika virus a Public Health Emergency of International Concern and urges Brazil to increase its prevention and treatment efforts.

Source: [BMJ Global Health](#)

March 11: The Ministry of Health announces a three pillar plan to combat Zika virus: vector control through elimination of mosquitoes, assurance of access to healthcare, and increased technology and research funding.

Source: [BMJ Global Health](#)

May 18: Brazil is praised internationally by the WHO and Pan American Health Organization for its response to the Zika virus.

Source: [Pan American Health Organization](#), [New York Times](#)

2020

January 10: Brazil Ministry of Health's events monitoring committee is activated.

Source: [Ministério da Saúde](#)

January 16: The Ministry of Health publishes information on what is known about the novel coronavirus.

Source: [Ministério da Saúde](#)

January 22: The Ministry of Health's Emergency Operations Committee is activated at Level 1 alert. There are no suspected cases in Brazil.

Source: [Ministério da Saúde](#)

January 27: The first suspected case of COVID-19 in Brazil leads the Ministry of Health's Emergency Operations Committee to raise the alert level to Level 2.

Source: [Ministério da Saúde](#)

January 30: Brazil's Interministerial Executive Group on Public Health Emergency of National and International Importance (GEI-ESPII) is reactivated per [Decree No. 10.211](#). The measure authorizes the Ministry of Health with coordinating representatives of the following entities: the Civil House, Ministry of Justice and Public Security, Ministry of Defense, Ministry of Agriculture, Livestock and Supply, Ministry of Development, Institutional Security Office, and National Surveillance Agency Sanitary (Anvisa).

Source: [Ministério da Saúde](#)

February 3: Brazil declares a public health emergency of national importance. The Interministerial Executive Group holds its first meeting on COVID-19.

Source: [Ministério da Saúde](#)

February 4-5: The Ministry of Health submits a quarantine bill to Congress, which is passed.

Source: [Ministério da Saúde](#)

February 6: The Tripartite Interagency Commission, which is the national intergovernmental coordination mechanism, meets to discuss the coronavirus. Health secretaries from Brazil's states and capitals attend.

Source: [Ministério da Saúde](#), [Pan American Health Organization](#)

February 7: Bolsonaro signs a quarantine bill.

Source: [Ministério da Saúde](#)

February 26: The first case of COVID-19 is confirmed in Brazil. The case is also the first recorded in South America.

Source: [Reuters](#), [Ministério da Saúde](#)

February 28: The Ministry of Health launches a national coronavirus prevention campaign, with advertisements running on television, radio, and the Internet. Brazil is monitoring 182 suspected cases, which include people who have passed through any of 16 countries that have local transmission of the virus⁴² and shown a fever and another virus symptom. The laboratory capacity of the Brazilian states for detecting the coronavirus will be expanded in the next week.

Source: [Ministério da Saúde](#)

February 19: The Ministry of Health announces that it will adopt a new COVID-19 case flow on March 2, when it will begin fully adopting the data passed on by the state health departments.

Source: [Ministério da Saúde](#)

March 2: The Ministry of Health announces that it will expand the laboratory capacity for COVID-19 diagnosis nationwide. In the coming weeks, 30,000 diagnostic test kits (Berlin protocol) specific to COVID-19 will be distributed. Brazil has two confirmed cases at this time.

Source: [Ministério da Saúde](#)

March 6: The Ministry of Health announces plans to strengthen hospitals. The first reinforcements will be to Primary Care services, to prevent people from overloading hospitals in a potential scenario of high circulation of the virus. The number of health units that are open until 10 pm or on weekends will be increased, and telemedicine services provided. The Ministry of Health also expands its criteria for classifying suspected cases. Now, all people who arrive in Brazil from countries in North America, Europe, and Asia, and have symptoms, can be considered suspected cases of COVID-19. Previously, suspected cases were classified only from the travel history for some countries with local transmission of the disease.

Source: [Ministério da Saúde](#)

March 9: The Ministry of Health begins testing all hospitalized patients with severe respiratory symptoms, in public and private hospitals, regardless of whether patients have overseas travel history. The Ministry advises that all 163 health units (health posts, emergency care units, and hospitals) that are part of the sentinel network of influenza syndrome start testing patients who have negative results for other flu viruses, independent of travel abroad.

Source: [Ministério da Saúde](#)

March 11: Minister of Health Luiz Henrique Mandetta informs the Chamber of Deputies about negotiations with the Legislature to release up to R \$5 billion for actions to fight COVID-19. The

⁴² Germany, Australia, United Arab Emirates, Philippines, France, Iran, Italy, Malaysia, Japan, Singapore, South Korea, North Korea, Thailand, Vietnam and Cambodia, in addition to China.

funding will be used to expand primary care and assist hospitals. The number of confirmed cases in Brazil rises to 52. 907 suspected cases are being monitored.

Source: [Ministério da Saúde](#)

March 13: President Jair Bolsonaro says he has tested negative for COVID-19, a day after his secretary tests positive. The Ministry of Health announces a new phase of Brazil's strategy, as the government now aims to reduce the damage that COVID-19 can have on the population. The Ministry of Health regulates the isolation and quarantine criteria to be applied by local health authorities to patients with suspected or confirmed coronavirus infections, with [Ordinance No. 356](#). Brazil has 60 confirmed cases and 930 suspected cases being monitored.

Source: [Ministério da Saúde](#), [Ministério da Saúde](#), [Reuters](#)

March 14: The Ministry of Health waters down its guidance – issued less than 24 hours earlier – reportedly after an intervention from the office of Bolsonaro's chief of staff. The Ministry removes guidance on self-quarantine for travelers and the cancellation of cruises, and revises the cancellation of large events to apply only to areas with local transmission. Power reportedly shifted from the Ministry of Health to the office of the president's chief of staff, known as Casa Civil, led by Walter Souza Braga Netto, an Army general. Casa Civil said changes to the March 13 guidance were made by the Ministry of Health, following input from states.

Source: [Reuters](#)

March 16: Bolsonaro creates an intergovernmental “crisis cabinet” led by Netto, the head of Casa Civil. The new cabinet effectively reportedly supersedes the cross-agency group already set up within the Ministry of Health. Sources say Netto now has the final say, instead of public health experts, and that economic concerns were given more weight than public health. Netto's office says the group was formed because the pandemic “transcended” public health. Meanwhile, Bolsonaro encourages mass demonstrations by his supporters against his congressional opponents.

Source: [Reuters](#), [British Foreign Policy Group](#)

March 17: Brazil has its first death from COVID-19. Bolsonaro refers to efforts to mitigate the spread of the virus as “hysteria.”

Source: [CNN](#)

March 18: 13 members of the federal cabinet have tested positive for COVID-19, making Brazil second only to Iran as the country with the most cases at the top of government. All public health laboratories in the country can now perform testing.

Source: [Veja](#), [Ministério da Saúde](#)

March 20: Health Minister Luiz Henrique Mandetta says the virus poses an existential threat to Brazil's healthcare system, which could start to collapse in April.

Source: [Reuters](#)

March 24: President Jair Bolsonaro urges state and local leaders to roll back lockdown measures.

Source: [Reuters](#), [The Guardian](#)

April 2: Bolsonaro states in an interview that he would not dismiss Health Minister Mandetta despite their differences over how to handle the coronavirus epidemic and social distancing guidelines.

Source: [Globo](#)

April 16: Bolsonaro fires Health Minister Mandetta, one month after Mandetta said the virus poses an existential threat to the country's healthcare system. Bolsonaro appoints Nelson Teich to replace Mandetta.

Source: [Reuters](#)

April 20: Bolsonaro joins anti-lockdown protests.

Source: [British Foreign Policy Group](#)

May 12: Bolsonaro attempts to open gyms and beauty parlors by presidential decree. Days later, newly appointed Health Minister Nelson Teich resigns due to differences between him and Bolsonaro over the use of hydroxychloroquine as a treatment for COVID-19, Bolsonaro's decision to expand the list of essential businesses, and social distancing guidelines.

Source: [Reuters](#), [Globo](#)

May 20: Brazil's Ministry of Health issues new guidelines for wider use of unproven antimalarial drugs in mild cases. The Ministry is being led on an interim basis by an active-duty army general Eduardo Pazuello, who has no prior experience in public health.

Source: [Reuters](#), [ABC News](#)

May 21: A report by Brazil's Federal Nursing Council indicates that nurses in Brazil are dying faster than anywhere else worldwide. 15,000 nurses are infected with COVID-19 in Brazil, and 137 have died.

Source: [Bloomberg](#)

May 22: Brazil overtakes Russia as the country with the second-highest number of cases globally, with over 310,000 cases.

Source: [Reuters](#), [Our World in Data](#)

June 6-9: Brazil removes public access to months of data on the COVID-19 epidemic in the country. Three days later, Brazil restores public access to the data following a Supreme Court ruling.

Source: [BBC News](#), [BBC News](#)

June 21: Brazil surpasses 1 million cases and 50,000 deaths. Brazil has surpassed Britain with the world's second highest number of deaths from COVID-19 after the United States.

Source: [Reuters](#)

June 23: A judge orders Bolsonaro to wear a mask in public after he attends political rallies without wearing one.

Source: [Reuters](#)

July 3: July 3: Brazil nears 1.5 million cases of COVID-19, as cities reopen bars, restaurants, and gyms. One hundred and eight Planalto Palace employees tested positive for the coronavirus, according to Brazil's General Secretariat.

Source: [Reuters](#), [Washington Post](#)

July 7: Bolsonaro announces he has tested positive for COVID-19. He removes his mask while addressing the news conference.

Source: [Reuters](#), [Washington Post](#)

July 27: A group of more than 1 million Brazilian medical professionals file a complaint to the International Criminal Court in The Hague, Netherlands, accusing Bolsonaro of crimes against humanity by reacting to the COVID-19 pandemic with "contempt, neglect, and denial." Brazil has 2.4 million confirmed cases and more than 87,000 deaths. With more than 87,000 deaths and 2.4 million registered infections so far, Brazil has suffered more cases than any other country except the United States.

Source: [NPR](#)

August 3: Brazil records a total of more than 2.7 million cases and 94,000 deaths from COVID-19. Bolsonaro's chief of staff Walter Souza Braga Netto tests positive for COVID-19.

Source: [New York Times](#), [Reuters](#)

August 11: Brazil's Parana state is in talks with Russia to produce a COVID-19 vaccine approved by Russia, despite the vaccine not having completed mass clinical trials.

Source: [Reuters](#)

August 31: President Bolsonaro states that COVID-19 vaccinations will not be obligatory when they become available. Days later, Vice President Hamilton Mourão says that immunization against COVID-19 will necessarily require mass vaccination, and "everyone in the government knows that."

Source: [Reuters](#)

September 3: Brazil's Health Ministry has reportedly distributed less than a third of the 22.9 million available Real-time Polymerase Chain Reaction (RT-PCR) test kits for COVID-19, due to a lack of supplies used to apply the tests, including swabs.

Source: [O Estado de S.Paulo](#), [Reuters](#)

September 4: The technology institute for the Brazilian state of Parana announces plans to conduct phase III trials of Russia's Sputnik V vaccine on 10,000 volunteers in early 2021. Brazil records more than 4 million cases and 124,000 deaths.

Source: [Reuters](#)

October 5: Brazil's military concludes a three week operation in the Amazon to provide medical assistance to the Guajajara tribe, following criticism that Brazil was not doing enough to protect indigenous people. The Defense Ministry reports that its doctors did 37,000 checkups since September 24 and supplied 39 tons of medicine, food, and protective equipment.

Source: [Reuters](#)

October 8: Brazil reaches 5 million cases and nearly 150,000 deaths.

Source: [BBC News](#)

October 23: Brazilian regulator Anvisa authorizes Sao Paulo's Butantan Institute to import 6 million doses of China's Sinovac vaccine, one day after Bolsonaro said Brazil would not buy the Chinese vaccine. Sao Paulo governor João Doria says that Anvisa told him it will not bow to political pressure over the approval of potential coronavirus vaccines.

Source: [Reuters](#)

October 30: Bolsonaro states that he will not pay for a Chinese coronavirus vaccine that is under clinical trial in Sao Paulo state.

Source: [Al Jazeera](#)

October 31: Brazil's Health Minister Eduardo Pazuello is hospitalized after testing positive for COVID-19 on October 21.

Source: [Reuters](#)

Biosecurity Legislation in Brazil

Law No. 6,259 (1975): The Ministry of Health through this law created the National System for Epidemiological Surveillance, or SNVE, which centrally located disease surveillance components, created a national program of immunizations, and mandated communications relating to the presence of certain diseases.

Source: [Library of Congress](#)

Brazilian Constitution (1988): The Brazilian Constitution states that health is a right of all and a duty of the government, guaranteed by social and economic policies aimed at reducing the risk of disease and at the equal and universal access to actions and services for its promotion, protection, and recovery.

Source: [Library of Congress](#)

Law No. 8,080 (1990): This legislation, also known as the National Health Law, establishes the United Health System (or SUS) as the principal health organization of the nation responsible for epidemiologic surveillance and private healthcare regulation, absorbing the SNVE. Epidemiologic surveillance is defined by the law as a group of actions that provide for the knowledge, detection, or prevention of any change in the determining and conditioning factors of individual or collective health, for the purpose of recommending and adopting measures to prevent and control diseases.

Source: [Library of Congress](#)

Law No. 9,782 (1999): This legislation created the National Agency of Sanitary Surveillance, or ANVISA, which is responsible for the protection of public health through sanitary control of markets, points of production, air and sea ports, and borders

Source: [Ministry of Health](#)

Law No. 12,608 (2012; updated 2017): This legislation instituted the National Civil Protection and Defense System (SINPDEC); it was subsequently updated in 2017 to create the National Civil Protection and Defense Policy (PNPDEC). The insertion of protection in the policy indicates an effort to emphasize the prevention and mitigation phases of disaster management. The SINPDEC, like the PNPDEC, is supported by a systemic approach, assigning an inter-agency aspect to disaster governance in Brazil.

Source: [SciELO Brazil](#)

Decree No. 8,065 (2013): This enabled the Ministry of Health to implement national health policy and oversee the SUS. The decree created the Secretariat of Health Surveillance, or SVS, which is responsible for the National System of Health Surveillance, the tracking of transmissible and non-transmissible diseases, environmental health, workers' health, and public health laboratories.

Source: [Ministry of Health](#)

Findings: Discussion and Concluding Thoughts

The case studies of Taiwan, Sweden, Italy, and Brazil support the preliminary assessments of our first report on government responses to the COVID-19 pandemic with some slight deviations. The form of government in a country – whether a country is democratic or authoritarian, federal or centralized – has not had a significant impact to date on a country’s success in addressing COVID-19. While the last report covered a range of countries with different governing structures, this report focused on democracies. The performance of each of the four countries varied widely, despite their shared democratic foundations.

Each of these democracies demonstrated different approaches to countering the virus:

- Taiwan demonstrated that a compulsory lockdown was not necessary to defeat COVID-19. Instead, a meticulously planned and technologically advanced system for tracking infections and communicating with the public contributed to Taiwan’s success.
- The case of Sweden demonstrates the importance of citizens’ trust in governance and high levels of social responsibility. Despite high levels of infection and deaths in comparison to its neighbors, Sweden has performed better in its initial response to the pandemic without implementing stringent lockdowns or widespread contact tracing programs.
- In Italy, we see how important it is for there to be coordination between regions in a federal system, as well as between the regional and national governments.
- Lastly, Brazil demonstrates how failed leadership can lead to the failure of a nation to combat the pandemic, even when others in government have the best intentions.

In sum, there is no single factor of governance or policy that has led to a successful COVID-19 response. Instead, the study consistently showed that four factors carried out in combination with one another are necessary for success:

- 1) strong central leadership and interagency coordination;
- 2) a pre-existing, adaptable pandemic strategy and implementation plan;
- 3) regard for societal and cultural values; and
- 4) either a strict lockdown or advanced data-driven measures.

The case studies in this report led us to further conclude that strong central leadership and interagency coordination is the single most important factor in a successful response. This is based on evidence that the successful implementation of a strict lockdown or an effective data-driven approach depends upon a leader willing and able to unite all levels and bodies of government in cohesive, streamlined action. Taiwan benefitted from having a president and vice president with the combined political and scientific experience necessary to unite government around a smart strategy. In stark contrast, Brazil’s president has continued to impede his country’s response to the pandemic.

Still, a pre-existing, adaptable pandemic strategy and implementation plan remains relevant in this dataset. While all of the countries in this study had existing strategies, they varied significantly. Taiwan appears to be the only nation of the four to have incorporated extensive, detailed plans on quarantine and isolation of confirmed and suspected cases. Taiwan’s strategy also lays out plans

for border restrictions, the management of incoming cases, and the entry and exit of travelers during the pandemic period.

A government's regard for societal and cultural values is another important element to consider when evaluating governance in the COVID-19 era. The Swedish response hinged upon a historically high degree of trust in government and a culture that values individual responsibility. The Swedish government trusted that citizens would follow its guidance on social distancing and limiting movement. Yet, while many did adjust their daily activities, it may not have been enough, given Sweden's mortality compared to its European neighbors.

While most countries utilize technology to some degree for purposes of crisis communications or contact tracing, Taiwan and South Korea went the extra mile. Their governments used technology to enforce quarantine and isolation orders for COVID-19 restrictions, track citizens' movements and notify them if they came into contact with an infected person, coordinate social services, and maintain constant communication with the public. These initiatives were often voluntary, but they worked due to widespread participation. They were also successful because technology had already been integrated into daily life and governance in South Korea and Taiwan, both of which have capital cities known for being "smart cities."