



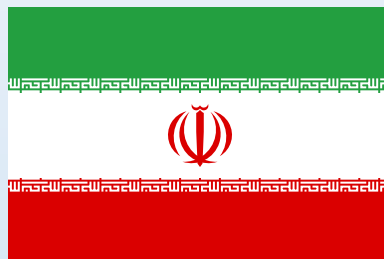
CENTER ON NATIONAL SECURITY AT FORDHAM LAW

# Project on Biosecurity

## REPORT #3

COVID-19 Responses:  
India, Iran, Vietnam

March – December 2020



## ABOUT THE AUTHORS

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## Executive Summary

This report, the third and final installment in a series on governance and COVID-19, examines the experiences of two countries in confronting the early days of the COVID-19 pandemic: Vietnam, India and Iran.

Our research on these countries reinforced the findings in our preceding reports, in which we made the following assessments. First, the type of government – whether a country is democratic or authoritarian, federal or centralized – does not have a significant impact on the initial effectiveness of a pandemic response. Second, no single factor leads to a successful early response to COVID-19. Four governance factors, in combination, are necessary for a government to successfully 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. Of these four components, strong central leadership and interagency coordination is an essential factor contributing to success in countering COVID-19.

Through our research on Vietnam, India, and Iran, we made two additional assessments. First, coordination between the national and state governments is particularly crucial in larger countries, like India and Iran. This is separate and distinct from interagency coordination, which refers primarily to coordination among government ministries at the national level. Second, strict national lockdowns is most effective when accompanied by programs and measures that offset the economic costs for workers, while also accounting for the flow of migrant workers returning home. We observed in India that even a strictly enforced nationwide lockdown can inadvertently cause an increase in the growth rate of the virus, or the R-value, and the spread of the virus outside of regional or local hotspots.

This report employs the same methodology as our second report, and 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.<sup>1</sup> 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 testing for COVID-19.<sup>2</sup>

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<sup>1</sup> "Mortality Analyses," Johns Hopkins University. December 12, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>; "The share of COVID-19 tests that are positive," Our World in Data. December 12, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..latest&country=IRN~IND~VNM>.

<sup>2</sup> 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](https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-30mar2020.pdf?sfvrsn=6b68bc4a_2).

These measures result in the following rank order for success, from most successful to least successful response, as of December 2020: Vietnam, India, and Iran.<sup>3</sup>

For comparative purposes, the following is the current rank order for success for all 13 of the nations examined in our three-part series based on the mortality rate, or deaths per 100,000 people. The percentage in parentheses indicates the country's current share of COVID-19 tests that are found to be positive, as of December 2020 or the most recently available data. From the highest mortality to the lowest at the time of this writing: Italy, 105.96 deaths (10.90%); United Kingdom, 96.44 deaths (5.00%); United States, 91.03 deaths (11.70%); Brazil, 86.47 deaths (unreported %); Sweden, 73.79 deaths (13.30%); Iran, 63.51 deaths (25.40%); Germany, 26.41 deaths (10.20%); India, 10.57 deaths (3.10%); South Korea, 1.12 deaths (3.20%); New Zealand, 0.51 deaths (0.10%); China, 0.34 deaths (unreported %); Vietnam, 0.04 deaths (0.10%); and Taiwan, 0.03 deaths (2.10%).<sup>4</sup>

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<sup>3</sup> The number of deaths per 100,000 and the percent positive daily tests for each country as of December 12, respectively, are as follows: 1) Vietnam, 0.04 deaths and 0.10%; 2) India, 10.54 deaths and 3.10%; and 3) Iran, 63.24 deaths and 25.40%. The most recent data available for Vietnam's daily share of COVID-19 tests that were positive is from October 10.

<sup>4</sup> "The share of COVID-19 tests that are positive," Our World in Data. December 12, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=2020-09-19..latest&country=IND~IRN~VNM~ITA~GBR~USA~SWE~DEU~KOR~NZL~TWN>.

## 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 initial 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.<sup>5</sup> 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.<sup>6</sup> 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."<sup>7</sup> 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.<sup>8</sup> 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.

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<sup>5</sup> "Mortality Analyses," Johns Hopkins University. December 12, 2020. Available from <https://coronavirus.jhu.edu/data/mortality>.

<sup>6</sup> "The share of COVID-19 tests that are positive," Our World in Data. December 12, 2020. Available from <https://ourworldindata.org/grapher/positive-rate-daily-smoothed?tab=chart&time=earliest..latest&country=IRN~IND~VNM>.

<sup>7</sup> "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](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>.

<sup>8</sup> "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](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>.

## Vietnam

### Summary

As of the date of this report, Vietnam has distinguished itself with its testing, contact tracing, and isolation regimes. The communist country of 95 million has recorded a mere 1,339 cases and 35 deaths to COVID-19 as of November 2020; its mortality rate is the second lowest in the world with 0.04 deaths per 100,000 people. In total, Vietnam has performed far more tests per confirmed case than any other country, and its most recently recorded percent positive rate was 0.1 percent as of October 15. By these two measures of success, Vietnam's government has had a seemingly successful initial response to COVID-19.<sup>9</sup> Indeed, this is made all the more impressive given that in 2000, the World Health Organization ranked the country's health care system as one of the world's worst—160 out of 191 member states.

Vietnam exemplifies all four of the factors that seem to underly an effective response: strong leadership and interagency coordination, a pre-existing and adaptable pandemic strategy, regard for societal and cultural factors, and a strict lockdown and/or effective data-driven measures.

Like Taiwan and South Korea, Vietnam learned valuable lessons from the SARS epidemic in 2003 that resulted in a number of changes to how the country would respond to future infectious disease outbreaks. The Vietnamese government established a Steering Committee of Disease Prevention led by the Minister of Health during SARS, which it again activated in response to the novel coronavirus on January 31, 2020. Led by Vice Prime Minister Vu Duc Dam, the Steering Committee for Prevention and Control of Acute Respiratory Infection Caused by the New Strain of Coronavirus consisted of members from 23 government ministries. The Committee had the capacity to respond rapidly given its interagency composition and operation within a one-party system in which the central government has control down to the local level. Under the leadership of Prime Minister Nguyen Xuan Phuc, Vietnam also took the unusual step of going against some of the guidance of the WHO, such as ordering citizens to wear face masks early in the pandemic. Although responses to the pandemic showed similarities across different types of government, the one-party system in Vietnam seems to have enhanced the country's ability to make coordination effective.

Vietnam updated its pandemic preparedness strategy in October 2011, and it was meant to last through 2015.<sup>10</sup> While it remains unclear whether the government used a revised version for COVID-19, this strategy is nonetheless the most comprehensive and specific of those countries

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<sup>9</sup> Taiwan, New Zealand, and South Korea are the three countries that come closest to competing with Vietnam for the most successful response, based on our two criteria. While Taiwan has a slightly lower mortality rate of 0.03 deaths per 100,000, its percent positive rate has hovered around one percent since mid-August compared to Vietnam's percent positive of 0.1 percent. New Zealand has nearly matched Vietnam's percent positive rate since mid-April, but its mortality rate is higher than Vietnam's at 0.51 deaths per 100,000 people compared to Vietnam's mortality rate of 0.01 deaths per 100,000. South Korea has a higher mortality rate than Vietnam at 1.01 deaths per 100,000, and its percent positive is also higher than Vietnam's at 0.8 percent.

<sup>10</sup> "The Vietnam Integrated National Operational Program on Avian Influenza, Pandemic Preparedness and Emerging Infectious Diseases (AIPED), 2011-2015," Vietnam Ministry of Health and Ministry of Agriculture and Rural Development. October 2011. Available from <http://animaldiseaseintelligence.com/wordpress/wp-content/uploads/2011/12/AIPED.pdf>.

we have included in our dataset. It contains three key components, the first of which is Enhanced Coordination Activities. This involves coordination at the central and provincial levels of government, international coordination, engagement with civil society and the public sector, as well as communication with the public to encourage behavioral change during a pandemic. The second component is HPAI (Highly Pathogenic Avian Influenza) Control, Eradication, and Strategy for Emerging Infectious Diseases in the Agricultural Sector. This component details a strategic approach to emerging diseases and covers Vietnam's progress thus far in improving surveillance and epidemiological investigation. The third component is Pandemic Preparedness and Influenza and Emerging Infectious Diseases in the Health Sector. This component focuses heavily on protecting healthcare workers and preventing nosocomial infections (those acquired in a health facility). The strategy also contains sections on challenges, monitoring and evaluation, financial management and estimated budget, and an annex on lessons learned from previous years.

In combating COVID-19, Vietnam's government acted quickly to implement measures that it had employed during SARS and H1N1. Many of these measures were also introduced early in other successful countries, such as strict border controls and widespread testing and contact tracing. It is worth noting, however, that Vietnam went above and beyond South Korea, Taiwan, and New Zealand with regard to testing and contact tracing. As of December 2020, Vietnam had conducted about 1,130 tests per confirmed case – this is nearly double the number of tests per confirmed case as New Zealand, roughly six times as many as Taiwan, and more than 11 times as many as South Korea.<sup>11</sup> Furthermore, Vietnam's health ministry implemented a four-level contact tracing and response system.<sup>12</sup> Once a COVID-19 case was confirmed, the patient was placed in a hospital for isolation and treatment at no cost regardless of the severity of the symptoms. The patient's close contacts were then tested and either placed in a hospital if confirmed positive, or in a government-run quarantine center for 14 days if negative. Close contacts of those close contacts were also required to self-isolate at home for 14 days. Finally, the patient's town underwent a lockdown. This comprehensive system enabled Vietnam to initially contain COVID-19 better than any other country.

While other non-democratic countries have relied heavily on traditional authoritarian practices to contain COVID-19, Vietnam's approach has involved creative engagement with the public and a keen awareness of social trends and cultural norms. Perhaps the best example of such engagement occurred in late February. The National Institute of Occupational Safety and Health published and promoted a pop song called “Ghen Co Vy,” translated in English as “Jealous Coronavirus,” as part of a national awareness and handwashing campaign. The Institute enlisted a popular artist and dancer to create new lyrics and a popular dance, which went viral on Tik Tok. Vietnam's population is highly active on social media, so engaging through popular apps like Tik Tok proved to be effective in raising public awareness of COVID-19. Other technological efforts included a voluntary phone application that served as a type of

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<sup>11</sup> “Total number of COVID-19 tests per confirmed case, Jan 21, 2020 to Oct 16, 2020,” Our World in Data. Accessed November 29, 2020. Available from <https://ourworldindata.org/grapher/number-of-covid-19-tests-per-confirmed-case?time=earliest..2020-10-16&country=VNM~KOR~NZL~TWN~USA>.

<sup>12</sup> Trang Bui, “Aggressive testing and pop songs: how Vietnam contained the coronavirus,” *The Guardian*. May 1, 2020. Available from <https://www.theguardian.com/commentisfree/2020/may/01/testing-vietnam-contained-coronavirus>.

neighborhood watch system to complement formal contact tracing efforts, though this initiative and others have garnered pushback due to privacy concerns.

Lastly, Vietnam has at this stage consistently implemented more stringent measures than Taiwan, New Zealand, and South Korea over the course of the pandemic, judging from the Government Stringency Index created by Oxford University.<sup>13</sup> While stringent measures are not indicative of, or necessary for, a successful response to COVID-19, we assess in this series of reports that strict lockdown measures can lead to a successful response when paired with the other three factors addressed in the introduction. The fact that Vietnam continued to employ strict measures throughout the pandemic likely contributed to its remarkable success; Vietnam did not record a single death from COVID-19 until July 31, 2020, more than six months after its first confirmed case on January 23, 2020.

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<sup>13</sup> “COVID-19: Government Response Stringency Index,” Our World in Data. November 29, 2020. Available from <https://ourworldindata.org/grapher/covid-stringency-index?tab=chart&stackMode=absolute&time=2020-01-22..2020-11-16&country=VNM~KOR~TWN~NZL&region=World>.



## Vietnam - Timeline

2000

The World Health Organization ranks Vietnam's health care system as one of the world's worst: 160 out of 191 member states.

**Source:** [Mass Design Group](#)

2003

**February 26:** The first case of SARS is recorded in Vietnam.

**Source:** [CNN](#)

**March 11:** After the first SARS virus is admitted at the French Hospital in Hanoi, patients, hospital staff, and people who the patient may have come into contact with are transported to Bach Mai Hospital, which is designated as the sole hospital for SARS cases.

**Source:** [Japanese Society of Tropical Medicine](#)

**March 12:** The World Health Organization issues a global health alert regarding a "severe form of pneumonia" originating from Vietnam, China, and Hong Kong.

**Source:** [Center for Disease Control and Prevention](#)

**March 21:** Prime Minister Phan Van Khai announces a task force to fight SARS. The task force is composed of Health Minister Tran Thi Trung Chien and ministers for Foreign Affairs, Culture and Information, Public Security, National Defense, Finance, and Transport.

**Source:** [Vietnam Embassy](#)

**March:** Vietnam's government establishes a Steering Committee of Disease Prevention, led by the Minister of Health. This committee is in charge of all departments and directions related to preventing and containing SARS. The government allocates 71 billion VND for all SARS care and treatment.

**Source:** [World Health Organization](#)

**March-April:** Bach Mai Hospital in Hanoi receives help from The Japan Medical Team for Disaster Relief to control the virus and take the correct precautionary measures.

**Source:** [Japanese Society of Tropical Medicine](#)

**April 19:** The Vietnamese Ministry of Health asks the Prime Minister to close the border with China to prevent the spread. Vietnam heightens border surveillance, but refrains from closing the border.

**Source:** [World Health Organization](#)

**April 28:** Vietnam's Quang Ninh Province prohibits Chinese tourists from entering at the overland border to avoid another outbreak.

**Source:** [CNN](#)

**April 30:** Vietnam is the first country recognized by the World Health Organization to be SARS-free. Vietnam successfully implemented detection and protection measures, including prompt identification of persons with SARS, their movements, and contacts; effective isolation of SARS patients in hospitals; appropriate protection of medical staff treating these patients; comprehensive identification and isolation of suspected SARS cases; exit screening of international travelers; and timely and accurate reporting and sharing of information with other authorities and/or governments.

**Source:** [World Health Organization](#), [United Nations](#)

**May 12-14:** Vietnamese health care workers go through serologic testing and contact questionnaires to examine the spread of the SARS virus.

**Source:** [National Institutes of Health](#)

2004

**January:** The Avian Flu, H5N1, kills four patients in Hanoi. Prime Minister Phan Van Khai urges government officials to end the epidemic by February.

**Source:** [World Health Organization](#), [Oxford Academic](#)

**January 19:** World Health Organization members and a team from the Global Outbreak Alert and Response Network (GOARN) arrive in Vietnam.

**Source:** [World Health Organization](#)

**February 3:** Vietnam, along with Cambodia, Laos, and Pakistan, receives part of a \$1.6 million emergency care package to help fight H5N1.

**Source:** [FAO](#)

**February 4:** Vietnamese Agriculture Minister, Cao Duc Phat, asks the World Health Organization and Food and Agriculture Organization for “technical help” to fight the H5N1 virus, which includes culling of poultry, rapid-testing supplies, and the training of farmers and government workers.

**Source:** [Center for Infectious Disease](#)

**March 30:** Vietnamese authorities state that the country’s surge of H5N1 is over after sixteen die. Control efforts, largely the reduction of poultry population, along with the general education of H5N1 signs and diagnosis, cost \$83 million.

**Source:** [Center for Infectious Disease Research and Policy](#), [Congressional Research Service](#)

**May 6:** Though there haven’t been any SARS cases since April 2003, Vietnam remains vigilant on SARS prevention. The Ministry of Health sends members to health facilities all over the country to monitor the equipment and treatment of patients.

**Source:** [Nhan Dan](#)

2005

**June 30:** The Population Council, an international health research nonprofit, conducts a study analyzing 40 commune health centers in the Da Nang and Khanh Hoa provinces. The study concludes that none of the commune health centers meet Vietnam's Ministry of Health national standards due to a lack of staff, equipment, medicine, and facilities. The centers specifically lack infection control equipment.

**Source:** [Mass Design Group](#), [The Population Council Report](#)

**August:** The Vietnamese government begins a mass poultry vaccination program to avoid another H5N1 outbreak.

**Source:** [Congressional Research Service](#)

**October:** Vietnamese government signs a bilateral agreement with the United States to conduct a joint prevention program for H5N1.

**Source:** [Congressional Research Service](#)

**November:** Vietnam's Ministry of Defense establishes an H5N1 defense team.

**Source:** [Oxford Academic](#)

International investors upgrade 90 percent of the commune health centers and pilot community health centers open with new equipment, disability access, various medical services spots, a specialized care unit, and a guest area.

**Source:** [Mass Design Group](#)

2007

**January 20:** Deputy Prime Minister Nguyen Sinh Hung orders a mass slaughter of H5N1-infected poultry in Ca Mau and Bac Lieu to avoid another H5N1 outbreak. There has not been a human outbreak of the virus since 2005.

**Source:** [Reuters](#)

2009

Vietnam transitions to a real-time, web-based public health data system.

**Source:** [Our World in Data - Oxford](#)

**April 27:** Vietnam launches an airport screening program as the WHO raises the H1N1 pandemic alert to Stage 4. Between April and July, 967 of the 630,778 international travelers arriving at Ho Chi Minh City are isolated and tested.

**Source:** [Center for Infectious Disease Research and Policy](#)

**April 28:** The head of Vietnam's Preventative Health Bureau, Nguyen Huy Nga, states that all travelers entering Vietnam must declare their health status and have their temperatures taken.

**Source:** [Vietnam Briefing](#)

**May 10:** Hyundai Motor Vietnam provides ambulances to the Ministry of Health in preparation for the H1N1 virus to hit Vietnam.

**Source:** [Vn Economy](#)

**May 31:** Vietnam records its first H1N1 case, a student returning from the United States.

**Source:** [Reuters](#)

**June 10:** The General Department of Tourism and the Ministry of Health advise travel companies to stop sending Vietnamese tourists to countries that have been impacted by H1N1 on the World Health Organization's list.

**Source:** [Vn Economy](#)

**August 3:** Vietnam records its first death from H1N1, as the number of cases reaches 971.

**Source:** [Reuters](#)

**August:** The U.S. CDC Influenza Division places a Veterinary Medical Epidemiologist in the Influenza Program of CDC-Vietnam at Hanoi's U.S. embassy to promote U.S.—Vietnam collaborative efforts to stop the spread of H1N1.

**Source:** [Center for Disease Control](#)

**November 24:** Vietnam's Ministry of Health begins the first of three workshops meant to train Ministry of Health and provincial health workers on the country's new "Guidelines on the Implementation of Infection Control in Health Care Institutions."

**Source:** [WHO](#)

2010

**January 12-January 24:** 103 cases of the H1N1 virus are found in a primary school in the Thuy Nguyen district in rural Vietnam after three students test positive.

**Source:** [BioMed Central](#)

**April 21:** After the International Ministerial Conference on Animal and Pandemic Influenza, hosted by the Government of Vietnam, The Hanoi Declaration is written and proposes a variety of national measures countries should be taking to remain vigilant on diseases that can cross from animals to humans. The Declaration highlights and encourages countries to focus on community engagement and strengthened public health and veterinary systems.

**Source:** [United Nations](#)

**August 10:** World Health Organization director Margaret Chan states that the H1N1 virus has now reached its post-pandemic period, though countries in the Southern hemisphere, still in their flu-season, continue to see a few cases.

**Source:** [World Health Organization](#)

2013

Vietnam establishes its national emergency operations center. Each center houses skilled personnel and experts, including people from the Field Epidemiology Training Program, which is a program run by the Ministry of Health's Department of Preventive Medicine and supported

by the U.S. CDC and the WHO. Each center also trains disease detectives in several fields of prevention.

**Source:** [World Health Organization](#), [Center for Disease Control and Prevention](#)

## 2014

Vietnam joins the Global Health Security Agenda, a group of 67 countries focusing on international cooperation efforts to prevent, detect, and respond to infectious disease threats.

**Source:** [Center for Disease Control and Prevention](#), [Center for Disease Control and Prevention](#)

**October:** Vietnam begins laboratory training to prepare for a possible Ebola case in Vietnam.

**Source:** [World Health Organization](#)

## 2015

**June 2:** The Ministry of Health holds an emergency meeting to discuss preventive efforts for MERS, the first of which involves close monitoring of visitors from the Middle East and South Korea with a focus on international border gates in Hanoi and Ho Chi Minh City.

**Source:** [Nhan Dan](#)

**June 4:** Ho Chi Minh City airport begins taking temperatures of all arrivals as MERS cases continue to increase in Malaysia and the Philippines.

**Source:** [ThanhNien News](#)

## 2016

**February 2:** The Ministry of Health creates a Zika virus preparedness and response plan once the World Health Organization declares Zika a Public Health Emergency of International Concern.

**Source:** [National Institutes of Health](#), [Western Pacific Surveillance and Response Journal](#)

**February 5:** Vietnam releases Zika diagnosis and treatment guidelines. The country begins expanding its sentinel surveillance sites (used to monitor rate of occurrence of specific symptoms and conditions) from 8 sites to 71 sites by November.

**Source:** [Western Pacific Surveillance and Response Journal](#)

**April 5:** Vietnam reports its first two cases of the Zika virus to the World Health Organization. Both patients began experiencing symptoms in late March.

**Source:** [Reuters](#), [World Health Organization](#)

**May:** Vietnam collaborates with the U.S. CDC to pilot an event-based surveillance program which the government later expanded nationally in 2018. The event-based Emergency Operation Centers allow members of the public, including teachers, pharmacists, religious leaders, community leaders, and doctors, to report public health events. The program relies on public support, specifically the help of teachers, and religious and community leaders. By training them

to identify groups showing similar symptoms, the public helps the government identify an infectious disease outbreak.

**Source:** [Center for Disease Control and Prevention](#), [Our World in Data - Oxford](#)

**July 1:** The Ministry of Health requires hospitals to report notifiable diseases within 24 hours to a central database, ensuring that the Ministry of Health can track epidemiological developments across the country in real time.

**Source:** [Center for Disease Control and Prevention](#)

**September:** A more thorough, event-based surveillance system is tested in four provinces under the IHR of Vietnam's guidance.

**Source:** [World Health Organization](#)

**September 29:** Global CDC issues travel warning for pregnant women in Vietnam and 10 other Southeast Asian countries.

**Source:** [Center for Infectious Disease Research and Policy](#)

**November 2:** Zika cases in Vietnam double in three days to 23 cases. 17 of these cases are found in Vietnam's largest city, Ho Chi Minh.

**Source:** [Reuters](#)

**November 18:** Director-General of the Zika Emergency Committee announces the end of the Public Health Emergency of International Concern.

**Source:** [WHO](#)

Following a Joint External Evaluation, the Indo-Pacific Centre for Health Security develops regional programs for biosecurity training to build health security capacities in Vietnam and research.

**Source:** [Indo-Pacific Centre for Health Security](#)

## 2017

**May 23:** Hanoi records 700 cases of dengue fever as the first death is reported.

**Source:** [Vietnam Express](#)

**August 14:** Dengue fever cases reach 80,500. The death toll rises to 24. Deputy director of Hanoi's health department blames the surge on the change in weather from summer to fall.

**Source:** [Vietnam Express](#)

## 2018

**January 6:** Ebola screenings are intensified at borders and hospitals, though Vietnam has not had an Ebola case.

**Source:** [Vietnam Times](#)

**June 5:** A hospital in Ho Chi Minh City reports an H1N1 outbreak with 16 patients testing positive for the virus. The hospital puts 80 patients and staff that possibly had contact into quarantine.

**Source:** [Vietnam Insider](#)

**June-July:** Vietnam continues to increase surveillance at borders to prevent Ebola from entering as Vietnam.

**Source:** [China Daily](#), [Saigon Online](#)

2019

**May:** Vietnam has 23 alumni of its operations center training program. The emergency operations centers implements exercises and training designed to prepare appropriate institutions and personnel in government for infectious disease outbreaks. They have already aided preparedness and response measures for measles, Ebola, MERS, and Zika.

**Source:** [Our World in Data - Oxford](#)

**July 26:** Vietnam has successfully avoided a single Ebola case. There were rumors of a possible Ebola case in 2016, but those were quickly proved false. Outside of Guinea, Liberia, Nigeria, and Sierra Leone, seven countries faced Ebola cases in the single digits.

**Source:** [Saigon Online](#), [Center for Disease Control](#)

2020

**January 9:** The Ministry of Health first warns citizens of the threat of the novel coronavirus. The government begins communicating frequently with the public by adding prevention statements to every phone call placed, texting citizens directly, and taking advantage of Vietnam's use of social media to connect with citizens in creative ways.

**Source:** [Our World in Data - Oxford](#)

**January 16-21:** The Ministry of Health issues urgent directives to relevant government agencies, hospitals, and clinics nationwide relating to outbreak prevention. The Ministry's Steering Committee for the Prevention and Control of Dangerous and Emerging Diseases holds a meeting to discuss measures for the disease and prepare to deal with any reported infections. Deputy Minister Nguyễn Xuân Tuyên chairs the meeting.

**Source:** [Vietnam News](#), [Vietnam Plus](#)

**January 23:** Vietnam reports its first case of COVID-19.

**Source:** [Our World in Data - Oxford](#)

**January 30:** A week after the first case is confirmed, Vietnam forms a national steering committee to coordinate Vietnam's "whole of government" strategy, meeting every two days. The strategy involves widespread testing and contact tracing, isolating or quarantining close contacts of infected people even if they test negative for COVID-19, and closing borders.

**Source:** [World Economic Forum](#), [Voice of Vietnam World](#)

**January 30:** Inbound passengers from Wuhan, China receive additional screening. Visas for Chinese tourists are no longer issued beginning January 30, just a week after the first case is confirmed.

**Source:** [Our World in Data - Oxford](#)

**January 31:** The Vietnamese government issues a declaration that it will “decouple” from China. It agrees on “three nos,” which are to be implemented starting February 1. First, the government will restrict travel to and from China. Second, it will stop issuing tourist visas to foreign travelers, including Chinese citizens, who had been in any part of China within the previous two weeks. Third, it will suspend all flights to and from the affected regions of China. Separately, the government also mandates that all schools nationwide close.

**Source:** [Japan Times](#), [Our World in Data - Oxford](#)

**Late January:** The Ministry of Science and Technology hosts a meeting with virologists to encourage the development of diagnostic tests.

**Source:** [Our World in Data - Oxford](#)

**February 1:** Vietnamese Prime Minister Nguyen Xuan Phuc signs a decision declaring a national epidemic, though the country has only recorded six confirmed cases.

**Source:** [Hanoi Times](#)

**February 1:** Flights to and from China are suspended. New cases are in the single digits.

**Source:** [Our World in Data - Oxford](#)

**February 5:** Trains nationwide are canceled. New case statistics are still in the single digits.

**Source:** [Our World in Data - Oxford](#)

**February 9:** Vietnam’s Ministry of Health hosts a teleconference with the World Health Organization and a diverse group of 700 Vietnamese hospitals nationwide in order to communicate new information about coronavirus prevention. The call also signals the launch of a website to keep the general public informed with statistics, updates, and new policies.

**Source:** [Vietnam Plus](#), [Vietnam News](#)

**February 13:** In the northern province of Vinh Phuc, provincial leaders lock down a patient that tested positive and contact trace and quarantine the patient’s contacts in established facilities for at least 14 days. They also activate a community-wide screening after the first sign of community spread.

**Source:** [Our World in Data - Oxford](#), [Garda](#)

**Late February:** The National Institute of Occupational Safety and Health publish and promote a pop song called “Ghen Co Vy,” translated as “Jealous Coronavirus,” as part of a national awareness and handwashing campaign. The Institute enlisted a popular artist and dancer to create new lyrics and a popular dance, which went viral on Tik Tok.

**Source:** [Our World in Data - Oxford](#), [CBS](#), [Yale](#), [The Diplomat](#)



**March:** The Ministry of Health sends SMS messages to all cell phone users in the country, which are specifically crafted to cultivate community support for new regulations and responsibility for personal conduct. The messaging encourages cooperation with mask mandates and lengthy quarantines.

**Source:** [Our World in Data - Oxford](#), [CBS](#), [Yale](#), [The Diplomat](#)

**February:** Government-funded health institutions develop four locally-made COVID-19 tests that are approved by the Ministry of Defense and the National Institute of Hygiene and Epidemiology. Private companies such as Viet A and Thai Duong also offer resources to manufacture the test kits.

**Source:** [Our World in Data - Oxford](#)

**February 7:** Hanoi University of Science and Technology develops test kits that cost \$15 and deliver test results in 70 minutes.

**Source:** [Our World in Data - Oxford](#)

**February 19:** The Ministry of Health issues national Guidelines for Infection Prevention and Control for COVID-19 Acute Respiratory Disease in Healthcare Establishments. The guidelines detail procedures for screening, admission, and isolation of confirmed or suspected COVID-19 cases; the designation of isolation areas in hospitals; the need for personal protective equipment; extensive cleaning and disinfecting strategies and waste management; and the collection, preservation, packing, and transport of patient samples. The guidelines also help to protect from laboratory-acquired infection and offer guidance for COVID-19 prevention for family members and other individuals who may be in close contact.

**Source:** [Our World in Data - Oxford](#)

**February 25:** Prime Minister Nguyen Xuan Phuc issues an order to local authorities to continue the temporary suspensions of large gatherings including festivals, religious and sports events in order to prevent the spread of the novel coronavirus.

**Source:** [VGP News](#)

**March 1:** The Ministry of Health launches a NCOVI cell phone app with the help of private telecom companies to create a neighborhood watch system, which will be used in addition to formal contact tracing efforts. It includes a map of detected cases and clusters of infections and allows users to declare their own health status, report suspected cases, and watch real-time movement of people placed under quarantine. The app is credited with slowing the transmission of COVID-19, but also raised privacy concerns.

**Source:** [The Asean Post](#), [Our World in Data - Oxford](#)

**March 3:** The Vietnam Academy of Science and Technology develops a test kit that costs under \$21 and delivers results in 80 minutes.

**Source:** [Our World in Data - Oxford](#)

**March 5:** Military Medical University creates a test kit that costs \$19-\$25 and takes over an hour to deliver results but has four times the testing capacities as the CDC kits. This test kit, Viet A,

has been certified by European Union and can be dispersed internationally (even though the WHO certification was pending).

**Source:** [Our World in Data - Oxford](#)

**March 6:** Vietnam experiences a second wave of cases that were imported from new hotspots in Europe, Great Britain, and the United States. The day after the emergence of one of the new cases, the government tracked and isolated the 200 people who had been in contact with the individual.

**Source:** [VnExpress](#)

**March 8:** Deputy Prime Minister and Minister of Health Vu Duc Dam declares that Vietnam officially enters the second phase of the fight against COVID-19. The Vietnamese government continues to escalate its public health response to flatten the curve.

**Source:** [Customs News](#)

**March 10:** The Ministry of Health continues to roll out the launch of the health declaration mobile application NCOVI to help citizens report symptoms, note pre-existing conditions, and follow the contact tracing guidelines. These measures were taken before the WHO declared a global pandemic on the following day, March 11.

**Source:** [Vietnam Times](#), [WHO](#)

**March 15-18:** Vietnam suspends flights from the Schengen countries and the United Kingdom after the second wave of cases, traced to people who had been traveling in Europe. All visa issuance is discontinued on March 18.

**Source:** [Our World in Data - Oxford](#)

**March 22:** Vietnam closes borders and suspends all international flights.

**Source:** [Our World in Data - Oxford](#)

**March 23:** Prime Minister Phuc declares the third phase of the pandemic fight and characterizes the community risk of community spread as high.

**Source:** [Vietnam Investment Review](#)

**March 30:** Prime Minister Phuc announces a nationwide pandemic during a meeting with the National Steering Committee for COVID-19 Prevention and Control.

**Source:** [Vietnam News](#)

**March 31:** Prime Minister Phuc issues a new directive that places the nation under limited lockdown effective April 1. The directive enforced national isolation, banned gatherings, close borders, and implemented quarantine policies.

**Source:** [The Diplomat](#)

**April 1:** Vietnam enters a nationwide lockdown set for 15 days, which is extended to 21 days in 28 out of 63 provinces.

**Source:** [Our World in Data - Oxford](#)

**April 14:** Vietnam passes a decree which allows authorities to fine people who “share false, untruthful, distorted, or slanderous information” on social media. Civil liberties groups staunchly oppose the decree.

**Source:** [Our World in Data - Oxford](#), [YouGov](#)

**April 15:** The NCOVI ranks fourth in downloads among free health and fitness apps in Vietnam’s IOS app store, demonstrating that people participated in the voluntary measures in massive numbers.

**Source:** [SimilarWeb](#)

**April 16:** Vietnam records no new cases of COVID-19 related to community spread. However, as more Vietnamese citizens are repatriated into the country, 54 positive cases have been detected in airports and quarantine centers.

**Source:** [Our World in Data - Oxford](#)

**Mid-April:** Vietnamese cyber security firm Bkav launches a Bluetooth mobile app called Bluezone used for contact tracing. The app notifies users if they have been within approximately 6 feet of a confirmed case within 14 days. After receiving the exposure notification, they are encouraged to contact public health officials immediately.

**Source:** [Our World in Data - Oxford](#), [VNExplorer](#)

**April 22:** Vietnam begins lifting its national lockdown.

**Source:** [Our World in Data - Oxford](#)

**May 1:** Vietnam reports no community transmission since April 15th and only 270 total cases nationwide.

**Source:** [Reuters](#)

**May 4-11:** Schools in Vietnam reopen.

**Source:** [Our World in Data - Oxford](#)

**May:** Testing capacity ramps up quickly, from just two testing sites nationwide in late January to 120 by May.

**Source:** [Our World in Data - Oxford](#)

**May:** From January 23 to May 1, over 200,000 people spent time in a government-run quarantine facility. Individuals quarantined in the centers receive three meals a day, sleeping facilities, and basic toiletries. On-demand quarantine facilities in hotels were also available for individuals at additional cost.

**Source:** [Our World in Data - Oxford](#), [Reuters](#), [Yale](#)

**July 25:** After 99 days without any local infections, Vietnam records one new case of COVID-19 that originated in a hospital.

**Source:** [New York Times](#)

**July 27:** Health Minister Nguyen Thanh Long states that infected patients may hold a new mutated strain of the coronavirus.

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

**July 25-31:** Coastal city Da Nang plans to test the entire population of over 2 million residents for COVID-19. 8,247 tests are conducted and the authorities announce a push to conduct 8,000-10,000 tests per day.

**Source:** [Reuters](#)

**July 31:** Vietnam records its first death from COVID-19, six months after its first case on January 23.

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

**September 21:** The Ministry of Health approves a new plan to test COVID-19 in Vietnam, replacing its decision issued on April 22. The new plan aims for timely detection of COVID-19 to carry out surveillance, isolation, treatment, evaluation for discharge, and research. The new plan reduces the workload of the testing system; reduces the need for biologicals, chemicals, and consumables; and reduces testing time and increases testing capacity, while maintaining test quality. The ministry sends an official dispatch to ministries, ministerial-level agencies, government agencies, and the People's Committees of provinces and cities to provide guidance on the temporary supervision of people entering Vietnam.

**Source:** [Nhan Dan](#), [Nhan Dan](#)

**September 26:** Vietnam reports no new cases of COVID-19 for 24 days. 18,000 people are quarantined for disease prevention. To date, Vietnam has recorded only 1,069 cases of COVID-19 out of a population of about 95.5 million. 551 cases have been reported since July 25.

**Source:** [Nhan Dan](#)

**September 27:** At a recent meeting of the National Steering Committee for the Prevention and Control of COVID-19, experts warned of four risks of COVID-19 infection in Vietnam: people who enter the country illegally; people who enter legally without having complied with regulations on isolation and medical supervision; the risk of community transmission; the risk of imported goods produced or shipped through epidemic countries. The Steering Committee unanimously agrees that the risk is greatest from people who enter legally without having complied with regulations.

**Source:** [Nhan Dan](#)

**October 27:** The Ministry of Health confirms 42 cases, all of which are connected to recent immigration into the country. 519 people are quarantined and subject to monitoring by the Ministry. Since early September, no cases of domestic transmission have been reported.

**Source:** [Ministry of Health](#)

**November 1:** The Civil Aviation Authority requests authorities to enforce the wearing of masks at airports, railway stations and on all public transport.

**Source:** [Ministry of Health](#)

**November 6:** The Ministry of Health receives VND 2 billion of funding for the research and production of the SARS-CoV-2 rapid test kit by the Center for Research and Production of Vaccines and Medical Bio-Products (POLYVAC), funded by TCPVN Co., Ltd. To date, 35 individuals have died from COVID-19 in Vietnam.

**Source:** [Ministry of Health](#)

## Vietnam - Legislation

**Law on Prevention and Control of Infectious Diseases (2007):** This foundational legislation focuses on principles of prevention and control of infectious diseases and state policies on prevention, medical training, surveillance, research, etc. Article Six identifies the government's role in managing the prevention of infectious disease, which includes a unified management approach and the Ministry of Health orchestrating state prevention management and coordinating with local agencies.

**Source:** [Sabin Vaccine Institute](#), [Vietnam Business Law](#)

**Decree No. 101 (2010):** This decree regulates the application and enforcement of medical isolation and specific anti-epidemic measures during an epidemic period, including suspension and prohibition of certain types of businesses, prohibition of crowds and high-volume activities, and suspension of business in general in areas of concern.

**Source:** [Vietnam Business Law](#)

**Decree No. 176 (2013):** This decree regulates administrative sanctions for the violation of measures related to the prevention and control of infectious diseases.

**Source:** [LuatVietnam](#), [Vietnam Business Law](#)

**Joint Circular 16 (2013):** The Ministry of Health and Ministry of Agriculture issued this circular to guide the prevention and control of infectious diseases transmitted from animals to humans. It regulates activities for monitoring, information sharing between state agencies, and the responsibility of different state agencies to cooperate.

**Source:** [Vietnam Business Law](#)

**Joint Circular 54 (2015):** The Ministry of Health issued this circular to guide reporting regimes for infectious disease epidemics. It regulates the information that must be reported and the reporting responsibility, the form of the report and reporting procedures, and responsibilities of relevant state agencies.

**Source:** [Vietnam Business Law](#)

**Decision 2 of the Prime Minister (2016):** This decision regulated the conditions and procedures under which the prime minister can declare the epidemic outbreak and the end of the epidemic.

**Source:** [Vietnam Business Law](#)

**Decree No. 103 (2016):** This decree regulates biosafety in laboratories and prescribes measures for the prevention and handling of biosafety incidents.

**Source:** [Vietnam Business Law](#)

**Decree No. 75 (2017):** This decree gives the Ministry of Health the following responsibilities: monitor, prevent and control infectious disease; issue, amend, and supplement the list of infectious diseases that are subject to compulsory use of vaccine/medical biological products; direct and guide the appraisal of health impact assessment reports for infectious disease examination and treatment facilities; and other responsibilities related to preventive care.

**Source:** [Vietnam Business Law](#)

**Decree No. 89 (2018):** This decree regulates health declarations for persons, corpses, biological products, and human organs entering and exiting Vietnam.

**Source:** [LuatVietnam](#), [Vietnam Business Law](#)

## **COVID-19 Legislation**

**Decision 468 (2020):** This decision by the Ministry of Health promulgates guidelines for the prevention and control of COVID-19 infections in medical examination and treatment facilities.

**Source:** [LuatVietnam](#)

**Decision 1588 (2020):** This decision by the Ministry of Health issues guidelines for the prevention of COVID-19 transmission to elderly populations.

**Source:** [LuatVietnam](#)

**Decision 3351 (2020):** This decision by the Ministry of Health issues diagnostic and treatment guidelines for COVID-19.

**Source:** [LuatVietnam](#)

**Decision 4042 (2020):** This decision by the Ministry of Health approves a testing plan for detection of COVID-19 during the epidemic period.

**Source:** [LuatVietnam](#)

**For a more complete list of official government decisions and regulations related to COVID-19, see:** [LuatVietnam](#)

## India

### Summary

Assessing the effectiveness of India's initial approach to COVID-19 posed a number of challenges. The government's response under Prime Minister Narendra Modi has widely been viewed as ineffective, due to the comparatively high number of infections and deaths in India, which as of December 12, 2020 ranked as the second highest in the world for infections and third highest in the world for deaths. The government has faced criticism for its poorly planned nationwide lockdown, its violent enforcement of government policies, and lack of support to millions of migrant workers and ordinary citizens. The country's relatively limited legislation on pandemic response and preparedness gives rise to more questions than answers.

At the same time, India's mortality rate on a population basis is at this juncture relatively low at 10.54 deaths per 100,000 people – nearly half Germany's mortality rate and far below the U.S. mortality rate of 90.31 deaths per 100,000 people. Even taking into account underreporting of deaths due to COVID-19, this data point suggests that India has conducted a relatively successful initial response. However, one epidemiologist advising the government on COVID-19 surveillance attributed India's low mortality rate to the country's low average age.<sup>14</sup> Indeed, the share of India's population aged 65 and older – those most at risk of dying from COVID-19 – was only 6.37 percent in 2019, which is the lowest of all 13 nations examined in this series.<sup>15</sup> This suggests that India's demographics worked in the government's favor, but that thousands of deaths were likely avoidable had Modi led a more thoughtful, scientifically-driven response at the national level.

India had a pre-existing pandemic influenza plan, incorporated cultural elements into its response, and imposed the most stringent lockdown in the world, but poor central leadership and the near absence of coordination between national and regional authorities resulted in the unnecessary loss of life, not to mention severe economic disruptions and high social costs.

Historically, India has dealt successfully with previous infectious disease outbreaks, most recently the Nipah and Zika outbreaks in 2018. The country has well-established surveillance networks, hospital management programs, and protocols for outbreaks. India's Ministry of Health and Welfare began releasing advisories on COVID-19 prior to its first confirmed case on January 30, 2020, and continuously updated guidance as more was learned about the virus. Modi's decision, however, to implement a nationwide lockdown on 1.3 billion people on March 24, 2020 – when India had recorded just 10 deaths and fewer than 600 confirmed infections – was a pivotal moment for India.

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<sup>14</sup> Priyanka Pulla, "'The epidemic is growing very rapidly': Indian government adviser fears coronavirus crisis will worsen," *Nature*. June 26, 2020. Available from <https://www.nature.com/articles/d41586-020-01865-w>.

<sup>15</sup> "Population ages 65 and above (% of total population) - India, United States, Sweden, China, Korea, Rep., Italy, United Kingdom, Vietnam, Iran, Islamic Rep., New Zealand, Germany, Brazil," The World Bank. December 12, 2020. Available from <https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?end=2019&locations=IN-US-SE-CN-KR-IT-GB-VN-IR-NZ-DE-BR&start=2017>; for population data on Taiwan, see: "Table 3: General situation of population," National Statistics Republic of China (Taiwan). December 12, 2020. Available from [https://eng.stat.gov.tw/public/data/dgbas03/bs2/yearbook\\_eng/y003.pdf](https://eng.stat.gov.tw/public/data/dgbas03/bs2/yearbook_eng/y003.pdf).



Modi announced at 8:00 pm that a three-week lockdown would commence in just four hours, by which time all grocery stores and shops had closed for the evening. No businesses were permitted to open, including essential businesses. Without adequate government support from the national or state level governments, India's predominantly informal workforce had no means of providing for their families. Thousands of migrant workers were forced to travel for days by foot to reach home, carrying the virus with them to often rural communities that lacked robust healthcare systems. In addition, many Indians lacked the resources to follow government social distancing guidance, particularly those living in overcrowded urban centers.

## India - Timeline

2003

**April 2:** India's Ministry of Health directs state governments to isolate and treat people infected with SARS. Air India cuts flights into the region down to three times a week.

**Source:** [Outlook India](#), [HRSM](#)

**April 3:** India's Ministry of Health announces screening of all passengers arriving in India.

**Source:** [Outlook India](#)

**April 17:** India reports its first case of SARS in Goa. A World Health Organization report later credits India for "quick detection and reporting of the first cases," stating that it is "indicative of the high level of global awareness and the vigilance of the world's health systems."

**Source:** [World Health Organization](#), [World Health Organization](#)

**April 29:** Suspected SARS patients are sent to the Infectious Disease Hospital, where conditions raise concerns.

**Source:** [Indian Journal of Medical Ethics](#), [Outlook India](#)

**April 30:** India records its first death from SARS.

**Source:** [Outlook India](#)

**May 1:** More than 200 people are under quarantine with suspected cases of SARS in Pune, India.

**Source:** [Outlook India](#)

**May 2:** India is removed from the WHO's list of countries with SARS cases.

**Source:** [Center for Infectious Disease Research and Policy](#)

**May 28:** India has recorded just three cases of SARS.

**Source:** [World Health Organization](#)

**June 26:** Health Minister Sushma Swaraj declares India "SARS-free." India had expanded a five-year pilot program by the National Surveillance Programme for Communicable Diseases from five districts in 1997 to over 100 districts, which is reportedly how all probable and suspected cases of SARS were identified. The Director General of Health Services at the Ministry of Health and Family Welfare, SP Agarwal, warned that the SARS coronavirus is neither the first nor last virus to emerge as a major threat to public health, and that it should be considered an opportunity to improve public health systems. He also noted that eight expert subgroups on laboratory, public health, case management, and other important aspects of epidemic containment were constituted in India to collect updated information and to modify the guidelines on SARS on a daily basis. He credited India's risk communication to the general public and media as reducing panic in the community.

**Source:** [India Today](#), [India Today](#), [The National Medical Journal of India](#)

2009

**August 4:** A girl in Pune is the first to die of the H1N1 virus in India.

**Source:** [India Times](#)

**November 2:** India's government closes schools, colleges, and theaters in Mumbai after 1,000 people test positive for the H1N1 virus.

**Source:** [Voice of America](#)

2010

**August 8:** A total of 154,259 people were tested for H1N1. About 24 percent tested positive, and India recorded a total of 1,833 deaths from H1N1 since the first recorded case.

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

**August-September:** Isolation wards are established in hospitals as H1N1 cases continue to increase.

**Source:** [Deutsche-Welle](#)

**October 18:** Bharat Biotech, an India based biotechnology firm, announces the launch of an indigenously developed H1N1 Swine flu Vaccine, under the brand name "HNVAC." While developed privately, the company asserts that they are looking for ways to assist the government in maintaining access to a swine flu vaccine.

**Source:** [The Economic Times](#)

2014

**October 13:** India's Prime Minister Narendra Modi cancels the biggest-ever India-Africa summit, which was going to be held in Delhi, as Ebola risks rise.

**Source:** [The Economist](#)

**October 27:** Health Minister Harsh Vardan says that thermal scanners and "virus tracking equipment" have been installed at several airports. The government takes steps to quarantine passengers suspected to be carrying the Ebola virus for 21 days in isolated hospital wards.

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

**December 9:** India's Ministry of Health and Family Welfare states the Integrated Disease Surveillance Programme is tracking 700 passengers that had recently arrived in India.

**Source:** [Down to Earth](#)

**December 10:** Indian Ambassador to the United Nations Asoke Kumar Mekerji states that India will pledge a \$10 million contribution to the UN's Ebola fund.

**Source:** [ReliefWeb](#)

2017

**May 15:** The Ministry of Health and Family Welfare reports three confirmed cases of Zika virus in Gujarat. It shares the National Guidelines and Action Plan on Zika virus with the states to prevent outbreaks and contain the spread of a possible outbreak. An Inter-Ministerial Task Force is set up under the Chairmanship of the Secretary of Health and Family Welfare, together with the Secretaries of Bio-Technology and the Department of Health Research. A Joint Monitoring Group regularly reviews the global situation on Zika virus. All international airports and ports display information for travelers; the National Centre for Disease Control and National Vector Borne Disease Control Programme monitor appropriate vector control mechanisms on airport premises.

**Source:** [World Health Organization](#)

2018

**May 19:** An outbreak of Nipah virus, a highly fatal zoonotic disease, is reported in Kerala, the first Nipah virus outbreak to occur in South India and the third outbreak to occur in India in general. The first two outbreaks had taken place in 2001 and 2007, both in West Bengal.

**Source:** [World Health Organization](#)

**June 1:** There have been 17 deaths and 18 confirmed cases of Nipah virus in Kerala. A multi-disciplinary team led by the government's National Centre for Disease Control arrives in Kerala to respond to the outbreak in coordination with state government officials, with technical support by the World Health Organization as needed.

**Source:** [World Health Organization](#)

**July 17:** No new cases or deaths of Nipah virus have been recorded since June 1. The government's response is viewed as a success by the World Health Organization. The Strategic Health Operations Centre at the National Centre for Disease Control was activated to monitor the outbreak. More than 2,600 contacts were identified and contacted during the outbreak. All symptomatic contacts were investigated and tested. Syndromic surveillance, hospital, and community surveillance were enhanced in Kerala. The central team provided Kerala officials with the reference materials on the virus, which were made publicly available during the outbreak. Risk communication messages were delivered to the community, public, partners and other stakeholders.

**Source:** [World Health Organization](#)

**September 21:** The Ministry of Health and Family Welfare reports a confirmed case of Zika virus in Rajasthan. State health authorities initiate a broad response and central teams are subsequently deployed to support surveillance and control efforts. A high level Joint Monitoring Group of Technical Experts is organized to monitor preparedness and response measures, and a control room is activated at the National Centre for Disease Control to provide regular monitoring and oversight.

**Source:** [World Health Organization](#)

**November 2:** 157 cases of Zika virus have been confirmed in India, including 63 pregnant women. Extensive surveillance and vector control measures are initiated in the Shastri Nagar area, including house-to-house surveys. Community based programs are underway to increase

public awareness and promote personal protective measures. Routine surveillance outside the outbreak area is ongoing. The central government maintains a laboratory-based Zika surveillance system involving 34 laboratories, which was developed as part of the National Zika Action plan.

**Source:** [World Health Organization](#)

2019

December 16: Representatives from India's Ministry of Health and Welfare and the World Health Organization plan to re-write India's pandemic influenza preparedness plan to incorporate lessons learned from the 2009 H1N1 pandemic.

**Source:** [World Health Organization](#)

2020

**January 11:** The Ministry of Health issues a travel advisory noting that there have been 41 cases of the novel coronavirus that originated in China and encouraging travelers to practice public health practices like hand washing and to monitor for symptoms.

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

**January 25:** The Ministry of Health and Welfare advises against travel to China. It issues guidelines for screening passengers from China at ports of entry, primarily airports, in addition to human surveillance guidelines for states and union territories that detail protocols through the Integrated Disease Surveillance Programme network.

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

**January 30:** India reports its first case of the novel coronavirus, in the state of Kerala.

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

**January 31-February 1:** India evacuates more than 600 citizens back to India from Wuhan, China in two flights.

**Source:** [The Indian Express](#)

**February 2:** Existing visas for foreign nationals traveling from China to India are no longer valid. People traveling from India to China will be quarantined for 14 days upon their return to India.

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

**February 3:** The high-level Group of Ministers holds its first meeting, chaired by the health minister. India reports its third infection in Kerala. The local government declares a state of emergency. 3,400 people who were suspected to have come in contact with the first three patients are put in quarantine.

**Source:** [Hindustan Times](#), [Centre for Policy Research](#)

**February 26:** Indian travelers are advised to refrain from non-essential travel to Singapore, South Korea, Iran, and Italy. People coming from those countries, excluding Singapore, will be quarantined for 14 days upon their arrival in India.

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

**March 2:** India issues a travel advisory against travel to China, South Korea, Iran, Italy, and Japan. Those coming from those countries will be quarantined for 14 days.

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

**March 3:** All visas and e-visas are suspended for nationals from Italy, Iran, South Korea, and Japan. Regular sticker visa and e-visa holders for Chinese nationals suspended. Modi tweets that there is “no need to panic.” The Ministry of Health and Family Welfare issues an advisory for hospitals and medical education institutions that will be effective until at least March 31.

**Source:** [Bureau of Immigration](#), [Twitter](#), [Ministry of Health and Family Welfare](#)

**March 4:** Prime Minister Narendra Modi announces on Twitter that he is following expert advice to reduce mass gatherings to avoid the spread of COVID-19, though exact guidelines remain unclear. Separately, the Health Ministry announces that passengers of all international flights will undergo health screening at the airport. 22 new cases of COVID-19 are reported.

**Source:** [Twitter](#), [NDTV](#), [The Wire](#)

**March 6:** Indian Health Minister Harsh Vardhan tells parliament that the government is in the process of creating a containment plan for states.

**Source:** [The Economic Times](#)

**March 9:** The Ministry of Health and Welfare issues a testing strategy for the novel coronavirus, which states that there is no evidence of community transmission in India and therefore only those with travel history to affected countries or close contact with laboratory-confirmed cases need to be tested. The testing guidance is for those with travel history or close contact to first self-quarantine for 14 days, and if they show symptoms within 14 days, to then be tested. Those who are asymptomatic for the 14 day self-quarantine period do not need to be tested.

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

**March 11:** A meeting of the Government of Ministers is held to determine travel guidance and restrictions. India issues an updated travel advisory, which includes a negative COVID-19 test for those traveling to India from Italy or South Korea. The list of countries from which travelers will be quarantined expands to include France, Spain, and Germany. Japan has been removed from the travel advisory since the previous advisory on March 2. The Union Home Secretary also issues an order delegating its power under Section 10 of the Disaster Management Act of 2005 to the Secretary of the Ministry of Health and Family Welfare “to enhance the preparedness and containment” of COVID-19; the order is deemed to have come into effect on January 17.

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

**March 12:** India reports the country’s first death from COVID-19. The government bans the entry of foreigners and suspends visas from March 13 to April 15. It creates a comprehensive plan to contain the outbreak, involving seven ministries working together to establish quarantine and treatment facilities. Thirteen other ministries are tasked with similar responsibilities.

**Source:** [The Indian Express](#), [The Economic Times](#)

**March 14:** India's Ministry of Home Affairs, Disaster Management Division issues a letter to the Chief Secretaries of all states with a modified list of norms of assistance for COVID-19 from the State Disaster Response Fund, which includes 1) measures for quarantine, sample collection, and screening; and 2) procurement of essential equipment/labs for response to COVID-19.

**Source:** [Centre for Policy Research](#), [Ministry of Health and Family Welfare](#)

**March 16:** The Delhi government orders the closure of all gyms, night clubs, spas, and theatres until March 31. The Ministry of Health and Family Welfare issues an advisory on social distancing proposing various interventions that will remain in force until at least March 31.

**Source:** [The Wire](#), [Ministry of Health and Family Welfare](#)

**March 17:** The Indian Council of Medical Research issues a strategy for COVID-19 testing, which aligns with the testing strategy issued by the Ministry of Health and Welfare on March 9.

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

**March 18:** The government orders paramilitary forces to prepare to counter the coronavirus; all non-essential leave for paramilitary forces is also cancelled to minimize travel and risk of transmission.

**Source:** [The Economic Times](#)

**March 19:** Modi's government prohibits the export of domestically-made personal protective equipment (PPE). His order comes three weeks after the World Health Organization warned on February 27 of an impending disruption in global supply chains and advised countries to begin creating their own PPE stockpiles. The Prime Minister asks businesses and high net worth individuals not to cut salaries of their employees, and that no one apart from those involved with essential services such as health, government services, sanitation, and media venture out of home.

**Source:** [The Atlantic](#), [The Hindu](#)

**March 20:** Modi announces the creation of a "COVID-19 Economic Response Task Force" under Finance Minister Nirmala Sitharaman. His government allows healthcare workers to be tested for COVID-19, but only if they are symptomatic. The government still does not recognize community spread in India. Separately, Ministry of Health and Family Welfare Secretary Preeti Sudan writes a letter to the Chief Secretaries of all states and union territories recognizing that social distancing measures adopted by the various states and territories are not uniform, despite the central government having issued guidance on March 16. She requests that all states and union territories adopt and implement a list of 12 guidelines and invoke relevant legal provisions if necessary or required.

**Source:** [DD News](#), [The Atlantic](#), [Ministry of Health and Family Welfare](#)

**March 22:** A fourteen-hour voluntary lockdown is observed in India following a request by Prime Minister Narendra Modi, which he calls a "Janata Curfew."

**Source:** [The Indian Express](#)

**March 23:** The government halts all domestic flights.

**Source:** [New York Times](#)

**March 24:** Prime Minister Narendra Modi gives a televised speech at 8:00 p.m. announcing a three-week lockdown to begin in four hours, just after midnight on March 25. Indians are ordered not to leave their homes, all businesses are ordered to close, and no transport will be allowed. At the time of the announcement, businesses had already closed for the day. Grocery stores and pharmacies remain closed, as Modi does not provide any specific guidance for the operation of essential businesses. Police enforce the restrictions with violence in some instances. Home Secretary Ajay Bhallah issues an order for all states and union territories to enforce the 21 days lockdown. Modi's government bans the export of respiratory apparatuses.

Cabinet Secretary Rajiv Gauba writes a letter to the state Chief Secretaries requesting that they identify hospitals dedicated for the management of COVID-19 cases and ensure that they are in a state of readiness to manage a potential increase in infections. The Ministry of Health and Family Welfare also publishes a "Micro Plan for Containing Local Transmission of COVID-19."

**Source:** [The Atlantic](#), [Ministry of Health and Family Welfare](#), [Ministry of Health and Family Welfare](#), [New York Times](#), [Ministry of Health and Family Welfare](#), [Ministry of Health and Family Welfare](#)

**March 25:** The three-week nationwide lockdown begins. It is the world's largest lockdown, with India's 1.3 billion citizens under the mandatory stay-at-home order. India has recorded 13 deaths from COVID-19.

**Source:** [New York Times](#), [Centre for Policy Research](#)

**March 26:** Migrant laborers walk hundreds of miles along highways to reach their home villages amid the lockdown.

**Source:** [The Indian Express](#)

**March 27:** The Ministry of Health and Family Welfare issues a proposed COVID-19 Emergency Response and Health Systems Preparedness Project, which aims to respond to and mitigate COVID-19's threat and strengthen national systems for public health preparedness in India. It is a four-year project and part of the globally-coordinated Fast Track COVID-19 Response Program for developing countries, which includes a \$1 billion loan from the World Bank's COVID-19 Fast Track Facility. The project comprises the following components: 1) Emergency COVID-19 Response, which aims to slow down and limit the spread of COVID-19 in India; 2) Strengthening National and State Health Systems to Support Prevention and Preparedness; 3) Strengthening Pandemic Research and Multi-sector, National Institutions and Platforms for One Health; 4) Community Engagement and Risk Communication; 5) Implementation Management and Monitoring and Evaluation; and 6) Contingent Emergency Response. An Environmental and Social Commitment Plan is included. The plan is to be carried out by the Ministry of Health and Family Welfare, the Indian Council of Medical Research, and the National Center for Disease Control. The International Bank for Reconstruction and Development will finance it.

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



**March 29:** Modi sets up an informal task force, which becomes known as the National Task Force on COVID-19. Modi holds weekly teleconference meetings with chief ministers and other key officials on the task force, including Cabinet Secretary Rajiv Gauba, Health Secretary Pritee Sudhan, Home Secretary Ajay Bhalla, Principal Secretary to the Prime Minister P.K. Mishra, Principal Advisor to the Prime Minister P.K. Sinha, and Secretary to the Prime Minister Amarjeet Sinha. General Bipin Rawat, Chief of Defense Staff and permanent Chairman of the Chiefs of Staffs Committee, is also an important person on the task force. The government provides a daily press briefing at the National Media Centre.

**Source:** [India Today](#)

**March 31:** The government issues an advisory for the quarantine of migrant workers, which includes guidance for migrant workers who are in their cities of local residence; migrant workers who are in transit and have yet to reach their destination; and migrant workers who have reached their destination. Meanwhile, officials in the northern state of Uttar Pradesh are filmed spraying migrant workers with disinfectant, as the migrants sought to return home by foot following the announcement of a nationwide lockdown on March 24 and the cancellation of all public transportation.

**Source:** [Ministry of Health and Welfare](#), [Reuters](#), [BBC News](#)

**April 2:** Modi holds a video conference with the Chief Ministers of different states to discuss measures to contain the spread of COVID-19. India has confirmed 50 deaths from COVID-19 and more than 1,700 infections. The government of India launches the ArogyaSetu App to track COVID-19 infections, which was developed through a public-private partnership. The app reaches more than 100 million installations in 40 days.

**Source:** [Centre for Policy Research](#), [Ministry of Electronics and Information Technology](#)

**April 6:** The officially reported death toll in India exceeds 100 deaths.

**Source:** [The Indian Express](#)

**April 7:** The Ministry of Health and Family Welfare issues a guiding document on the management of suspected or confirmed COVID-19 cases. It includes standard operating procedures and specifies the different types of facilities that should be set up to handle COVID-19 cases.

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

**April 9:** Delhi and Mumbai, India's two most populous cities, and several states announce orders making the wearing of masks mandatory when leaving the home, going against WHO guidance. The orders make masks compulsory for more than 300 million people in India, at a time when hospitals are suffering from a lack of personal protective equipment.

**Source:** [The Independent](#)

**April 11:** Modi holds a meeting with Chief Ministers to deliberate an extension of the 21-day lockdown that was announced on March 24.

**Source:** [Centre for Policy Research](#)

**April 14:** 10,000 confirmed cases are recorded. The government extends the nationwide lockdown another 19 days until May 3. The death toll rises to 353.

**Source:** [The Wire](#), [Centre for Policy Research](#)

**April 18:** The Ministry of Health and Welfare issues an advisory against spraying disinfectant on humans as a form of COVID-19 management, after outrage in late March when officials in the state of Uttar Pradesh sprayed migrant workers who were returning home during the nationwide lockdown.

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

**April 19:** The Union Ministry of Home Affairs issues guidelines to states detailing protocols for how workers are to be transported to work sites. The movement of migrant workers outside the state or union territory where they are currently located is prohibited.

**Source:** [Centre for Policy Research](#)

**April 22:** 22,000 cases are confirmed in India, with cases doubling every seven days even after a month-long nationwide lockdown. The government issues an ordinance to amend the Epidemic Diseases Act of 1897 in order to make any attack on health workers a non-bailable offence.

**Source:** [Reuters](#), [Centre for Policy Research](#)

**April 25:** The Ministry of Home Affairs permits all shops, except those in malls or in containment zones, registered under the “Shops & Establishment Act” in the states and union territories to open. However, final decisions on the matter are left to the states.

**Source:** [Centre for Policy Research](#)

**April 27:** Modi meets with chief ministers via video conference and indicates that the central government is unlikely to completely lift the nationwide lockdown on May 3, but could ease many existing restrictions between that date and 15 May.

**Source:** [Centre for Policy Research](#)

**May 1:** India’s nationwide lockdown is extended to May 15. New guidelines are issued to regulate activities during the lockdown based on the risk profiling of the districts of the country into Red, Orange, and Green zones, with more relaxed regulations in the districts falling in the Orange and Green zones.

**Source:** [Centre for Policy Research](#)

**May 5:** Modi chairs a meeting of a task force on coronavirus vaccine development. His government suspends all existing visas granted to foreign nationals, with a few exceptions.

**Source:** [Centre for Policy Research](#)

**May 9:** India’s testing capacity is at about 95,000 tests per day. India has recorded over 56,000 infections, including nearly 2,000 deaths.

**Source:** [Centre for Policy Research](#)

**May 11:** Modi coordinates with state ministers on ways to strengthen India’s containment strategy and boost the economy. The Union Home Secretary writes to various states to facilitate

the movement of stranded migrants by special trains. The Indian Council of Medical Research issues guidance for appropriate recording of COVID-19 deaths to improve data collection. The Health Ministry issues revised guidelines for home isolation of mild or pre-symptomatic COVID-19 cases.

**Source:** [Centre for Policy Research](#)

**May 12:** Modi announces that a new lockdown will continue beyond the end of the current phase on May 17, but that the government will provide a massive economic package to revive the economy.

**Source:** [Centre for Policy Research](#)

**May 13:** The government's Aarogya Setu app has reportedly helped to generate information about nearly 700 hotspots in India since its launch on April 2, according to an official. It is later lauded by the World Health Organization for helping health departments to identify COVID-19 clusters.

**Source:** [Times of India](#), [Times of India](#)

**May 15:** The Ministry of Health and Family Welfare issues guidelines for the rational usage of various types of personal protective equipment.

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

**May 16:** The Ministry of Health and Family Welfare updates its COVID-19 containment plans for clusters and large outbreaks, which were first issued on April 17, as the country records over 51,000 infections and more than 2,600 deaths from COVID-19. The revised cluster containment plan details a strategic, scenario-based approach with guidelines for four scenarios: 1) Only travel related cases are reported from India; 2) Local transmission of COVID-19; 3) Community transmission of COVID-19; and 4) India becomes endemic for COVID-19. The large outbreak containment plan is also a scenario-based strategic approach with guidelines for the four scenarios listed above in addition to a fifth, "Large Outbreaks Amenable to Containment."

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

**May 17:** India's nationwide lockdown is extended to May 31.

**Source:** [The Wire](#)

**May 18:** India performs 100,000 tests in one day, a 1,000-fold increase in a 60-day period. India now has 555 laboratories nationwide performing molecular tests for diagnosis of COVID-19; in January, India had just one laboratory performing tests. The Department of Health Research at the Ministry of Health and Family Welfare issues guidance for enhancing India's testing capacity further.

**Source:** [Indian Council of Medical Research](#)

**May 22:** India reports 6,000 new infections, the largest 24-hour increase thus far. India has a total of over 118,000 cases, as the country begins to loosen lockdown restrictions and prepares to resume domestic flights.

**Source:** [Reuters](#)

**May 24:** The Ministry of Health and Family Welfare issues guidelines for domestic travel and updated guidelines for international arrivals.

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

**May 29:** India lifts its lockdown as infections are drastically increasing, particularly among migrant workers. Almost half of India's 160,000 reported cases can be traced to just four cities: New Delhi, Chennai, Ahmedabad, and Mumbai, where hospitals are overwhelmed.

**Source:** [New York Times](#)

**May 30:** The Ministry of Home Affairs releases new guidelines titled "Unlock 1.0" to commence on June 8. India registers its highest single-day increase in new COVID-19 cases with 7,964 infections and 265 deaths reported in the past 24 hours.

**Source:** [Centre for Policy Research](#)

**June 1:** The lockdown begins to wind down, allowing inter-state travel in limited provinces.

**Source:** [The Hindu](#)

**June 2:** The Indian Public Health Association, Indian Association of Preventive and Social Medicine, and Indian Association of Epidemiologists Joint COVID-19 Task Force issues a joint statement that the current situation in India with regard to COVID-19 cases could have been avoided had migrant workers been allowed to go home before a lockdown was imposed on March 24. The statement reads: "The returning migrants are now taking the infection to each and every corner of the country, mostly to rural and peri-urban areas, in districts which had minimal cases and have relatively weak public health systems (including clinical care)." It is sent to Modi.

**Source:** [The Wire](#)

**June 16:** India registers more than 10,000 cases for the fifth day in a row.

**Source:** [Centre for Policy Research](#)

**July 3:** The Ministry of Health and Family Welfare issues updated Clinical Management Protocols for COVID-19, which were first issued on June 13.

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

**July 17:** India reaches one million infections and 25,000 deaths. Several states and cities have reimposed total and partial lockdowns. Researchers at MIT predict that India will have the worst outbreak by the end of the year.

**Source:** [New York Times](#)

**August:** The Ministry of Health and Welfare issues a manual for surveillance teams in containment zones, which details 1) the role of the surveillance team in the containment zone; 2) community surveillance and contact tracing, including house-to-house searches for suspected cases; 3) preventive and control measures for families and communities; and 4) personal safety for the surveillance team while conducting activities.

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

**August 2:** The Ministry of Health and Family Welfare issues updated guidelines for international arrivals, which include a mandatory 14-day quarantine upon arrival. The quarantine period includes seven days of quarantine at a government institution, followed by a seven day home quarantine period. Travelers can seek exemption from the quarantine by producing a negative RT-PCR test report from the previous 96 hours upon arrival. Travelers are also advised to download India's mobile application, Aarogya Setu, which is used for contact tracing, syndromic mapping, and self-assessment.

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

**September 4:** The Indian Council of Medical Research issues updated testing guidelines recommended by the National Task Force on COVID-19.

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

**September 13:** The Ministry of Health and Family Welfare issues post-COVID-19 management protocols for recovered cases.

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

**October 10:** Modi states that he is committed to ensuring the supply of COVID-19 vaccines to all citizens once the vaccines are available.

**Source:**

**October 13:** The Ministry of Health and Family Welfare issues "guidelines for the management of co-infection of COVID-19 with other seasonal epidemic prone diseases."

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

**November 5:** The Ministry of Health and Family Welfare issues updated guidelines for international arrivals, which requires those seeking exemption from the mandatory 14-day quarantine to have reported a negative RT-PCR test conducted within 72 hours prior to departure, rather than 96 hours in the previous advisory issued August 2. Those without certificates of a negative test can also undergo testing at the airport for exemption.

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

**November 26:** The Ministry of Health and Family Welfare launches a new state-of-the-art information platform to monitor public health surveillance in seven states.

**Source:** [Press Information Bureau](#)

**November 30:** The Ministry of Health and Family Welfare issues standard operating procedures for containing the spread of COVID-19 in markets.

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

**December 12:** India records about 30,000 new cases in a 24-hour period, with the total number of cases reaching nearly 990,000 and more than 142,000 deaths.

**Source:** [The Hindu](#)

## India - Legislation

**Epidemic Diseases Act 1897:** This act empowers the central and state governments to adopt any measures deemed necessary to control the spread of infectious diseases, including quarantine. Any person who disobeys any regulation or order made under this law may be charged with an offense under section 188 of the Indian Penal Code.

**Source:** [Library of Congress](#), [National Institutes of Health](#)

**Disaster Management Act 2005:** This act establishes a National Disaster Management Authority, chaired by the Prime Minister of India, and a National Executive Committee. The National Executive Committee is responsible for prescribing guidelines for disaster management plans to be prepared by the different government ministries and state governments of India, and for monitoring the implementation of those plans. This act requires a national plan to be created for disaster management for the entire country. It also contains sections on state disaster management authorities.

**Source:** [India National Informatics Centre](#)

## Iran

### Summary

Under the weight of international sanctions and a fragmented government, the COVID-19 pandemic has put further strain on the Iranian people. At the time of writing, Iran has recorded more than 900,000 confirmed cases of COVID-19 and 46,000 deaths, with a mortality rate of 57.08 deaths per 100,000 people. Compared to the other countries we analyzed in this series on biosecurity and COVID-19, Iran's mortality rate is lower than those of Italy, the United Kingdom, Brazil, the United States, and Sweden; it ranks higher than Germany, India, South Korea, New Zealand, China, Vietnam, and Taiwan. As of December 2020, Iran's share of tests found to be positive is 32.10 percent as of November 26. This is the fifth highest percent positive in the world and significantly higher than the WHO's target of ten percent or less, indicating that Iran is likely only testing people showing clear symptoms of COVID-19, rather than those who may have been exposed to an infected person but are asymptomatic.

Iran's initial response to COVID-19 suffered from the outset due to the country's unusual dual power structure, under which Supreme Leader Ali Khamenei controls the armed forces and President Hassan Rouhani oversees Iran's civil ministries

Khamenei quickly asserted his authority over the situation by mobilizing the armed forces, which favored restrictive measures in Tehran and other parts of the country. Rouhani pushed back, citing the government's inability to provide for millions of citizens under quarantine given the dire economic situation in Iran. This tension between the two leaders and their respective agencies prevented effective interagency coordination, leading to the government's inability to reach an agreement on a national strategy – one that would be informed by the country's national security concerns, public health needs, and economic challenges. The apparent absence of an existing strategy, combined with these leadership challenges, left Iran behind the curve when it came to handling COVID-19.<sup>16</sup>

Our findings in this paper and our previous two reports have suggested that either a strict lockdown or the effective use of technology is necessary to flatten the curve of COVID-19. At the early stages, Iran's leaders came out against nationwide lockdowns and government-imposed quarantine measures. On February 24, 2020 – five days after Iran announced its first deaths from COVID-19 – Deputy Health Minister Iraj Harirchi stated that Iran was “absolutely against” quarantines. Rouhani likewise declared that only individuals are quarantined, not entire cities.

As fatalities and case numbers grew, however, Rouhani's government began to implement restrictive measures in certain towns or regions of the country, and briefly implemented a week-long, nationwide lockdown in early April 2020, after the Nowruz holiday. Iran's subsequent lifting of these restrictive measures appeared to be driven more so by economic concerns than the progress of the virus and its impact on public health. Given that Iran failed to implement a strict lockdown early in the country's epidemic – when it could have made a difference – a technologically advanced approach would have been necessary for Iran to adequately address

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<sup>16</sup> “National Plans for Pandemic Preparedness and Risk Management,” World Health Organization. Accessed November 27, 2020. Available from <https://extranet.who.int/sph/influenza-plan>.

COVID-19. While Iran did roll out a mobile application to assist citizens in monitoring symptoms, the program came under criticism for privacy concerns. Similarly, whereas South Korea and Taiwan were able to successfully encourage citizens to use technology to limit the spread of COVID-19, public distrust of the government hampered Iran's progress on this front.

Another factor that had an outsized impact on Iran's initial handling of COVID-19 is foreign policy. Iran's economy has been crippled by international sanctions and falling oil prices, and political rhetoric has often impeded international aid efforts. On March 22, 2020, the government rejected an offer of aid by the United States and suggested that the United States may be responsible for the virus. A day later, Iran again rejected aid from the non-government organization Médecins Sans Frontières (Doctors Without Borders) – which included a 50-bed inflatable hospital and a nine-person emergency team – stating that Iran would not rely on foreign aid. Shortly after, however, the government reversed the decision on MSF aid.



## Iran – Timeline

1988

Iran creates the National Center for Genetic Engineering and Biotechnology Research under the Ministry of Culture and Higher Education. The center has five main areas of focus: Medical Biotechnology, Plant Biotechnology, Animal and Marine Biotechnology, Industrial and Environmental Biotechnology and Basic Sciences. The center has worked on several public health initiatives, including research on a Hepatitis C vaccine.

**Source:** [Nuclear Threat Initiative](#)

1993

**February 24:** Dr. Mohammed Ali Rad, head of Iran's Veterinarian Education Council, warns that the seven-fold increase in dangerous diseases since 1979 has led to a resurgence in tuberculosis, malta fever, anthrax, rabies, and fatal infectious diseases in Iran.

**Source:** [New York Times](#)

1996

**February 8:** Iran's Ministry of Health reports that all areas of the country are free of cholera.

**Source:** [World Health Organization](#)

**October 21:** The Iranian Biotechnology Society is created by Iran's Ministry of Science, Research, and Technology to oversee biotech research.

**Source:** [National Threat Initiative](#), [Iranian Biotechnology Society](#)

1997-1998

Iran's immunization rate of 1-year-olds for measles is 100 percent.

**Source:** [UNICEF](#)

1998-1999

Iran and Cuba reach an unofficial agreement to collaborate on the production of interferon alfa (the antiviral drug used to treat hepatitis and some forms of cancer), streptokinase (a heart attack medication), and erythropoietin (the hormone responsible for red blood cell production).

**Source:** [Nuclear Threat Initiative](#)

1999

**February 29:** Iran launches a second stage of polio vaccination by sending 17,000 healthcare workers door-to-door to vaccinate 1.5 million children.

**Source:** [Tehran Times](#)

2000

**August 12:** Dr. Akbar Sayari, Deputy Minister of Health and Medical Education, states that through various vaccination efforts, polio, measles, and tetanus (which had only been reported 14 times since the 1970s) have been extinguished in Iran.

**Source:** [Tehran Times](#)

2001

Iran is deemed polio-free by the World Health Organization.

**Source:** [Archives of Clinical Infectious Diseases](#)

2002

Refugees are vaccinated for measles upon entry at the Iranian border.

**Source:** [Center for Disease Control](#)

2003

**April 30:** Airports in the Middle East begin intensifying screening measures to avoid a SARS outbreak. Kuwait is the only country in the region to have a possible SARS case.

**Source:** [Al Jazeera](#)

**December 6:** Iran begins the first phase of its measles's vaccination plan. Known as the 'catch-up phase,' phase one targets ages 5 to 25, and at its completion, vaccinates a total of 33,579,082 people. The second phase immediately follows this, with a goal to keep the immunization rate at 95 percent.

**Source:** [The Lancet](#)

2008

**January 13:** Iran bans bird hunting in its southwestern province to prevent the possible outbreak of the H5N1 strain of bird flu spreading in neighboring Azerbaijan, Turkey, and Iraq.

**August:** There are 17,000 "health houses" in Iran, which are village-based facilities staffed by trained healthcare workers who care for most of the country's rural population. Iran's health houses have been used as models for rural health care improvement around the world.

**Source:** [World Health Organization](#)

**August 27:** Health officials impose emergency measures in Iran to contain an outbreak of cholera, placing bans on the sale of raw salad greens and street food vendors in some cities, as well as penalties for businesses that do not follow guidance.

**Source:** [The National](#)

2009

**June 8:** Iranian Health Minister Mohammad Bagher Lankarani announces that the H1N1 Virus Prevention Committee has decided that Iranians will be prohibited from the pilgrimage to Makkah during Ramadan – which will take place from August 22 - September 19 – to slow the spread of the virus.

**Source:** [Asia News](#)

**June 22:** Iran records its first case of H1N1, a 16-year-old Iranian-American who tests positive after arriving in Tehran.

**Source:** [Tehran Times](#)

**July 16:** Health Minister Kamran Baqeri-Lankarani dismisses rumors that 30 cases of H1N1 have been reported in Tehran.

**Source:** [Tehran Times](#)

**September 2:** Mahmoud Nabavi, an official at the Health Ministry, announces that any school where 10 percent of the student body is positive for the H1N1 virus must close for 5 to 7 days.

**Source:** [Tehran Times](#)

**November 15:** Former Health Minister Alireza Marandi states that the number of H1N1 cases is higher than the Health Ministry is reporting. He speaks against closing schools out of fear of the virus.

**Source:** [Tehran Times](#)

**November 30:** Five schools are closed as Iran reaches 3,672 cases of H1N1. The health director of the Education Ministry, Hassan Ziadeddini, justifies the decision by referring to the 15 students that died from the virus.

**Source:** [Tehran Times](#)

**December 8:** After 147 deaths from H1N1, Iran receives the H1N1 vaccine from France. Iran's Deputy Health Minister Hassan Emami-Razavi notes the end of the second wave of the influenza.

**Source:** [Tehran Times](#)

2011

**January 15:** 13 Iranians die of the H3N2 virus, a “less dangerous” variation of the H1N1 virus. The outbreak is said to have entered Iran through foreign nationals.

**Source:** [Tehran Times](#)

2014

**May 16:** A group of Iranian Ministry of Health officials travels to Saudi Arabia to begin implementing preventative measures to avoid the spread of MERS among people making the annual hajj pilgrimage.

**Source:** [Government of Iran](#)

**May 26:** The National IHR Focal Point of Iran, the Iranian office meant to implement International Health Regulations, confirms the first two cases of MERS. The Iranian Center for Disease Control works with provincial health authorities to investigate all contact between the two cases and their families, friends, and other hospital patients. The government implements extensive contact tracing measures.

**Source:** [World Health Organization](#)

**June 4:** Iran's Ministry of Health reports three additional cases of MERS in the same hospital in Kerman as the previous two patients.

**Source:** [BBC Persian News](#)

**June 21:** The final case of MERS is resolved, as the patient is discharged from the hospital.

**Source:** [Iranian CDC](#)

**September 23:** The Canadian CDC confirms five cases of MERS in Iran, with two fatalities.

**Source:** [Canada Communicable Disease Report](#)

**October:** The Iranian government denies rumors of an Ebola outbreak within the country as the disease spreads through West Africa. Dr. Mahmoud Nabavi, the Deputy Director of the Center for Infectious Diseases Management, states that "all necessary precautions are taken" within transportation hubs, preventing any spread into the country.

**Source:** [IRNA](#)

**October 26:** The Director General of the Ministry of Health's CDC states that Iran has designated a hospital in Tehran for quarantine and treatment of the Ebola virus, and adds that it is likely for Ebola to enter Iran.

**Source:** [The Iran Project](#), [The Iran Project](#)

**November:** Iranian state media suggests that the Ebola outbreak could potentially be linked to terrorist groups such as the Islamic State.

**Source:** [IRNA](#)

2015

**February 17:** The Health Ministry declares Iran Ebola-free while dismissing the media reports of Ebola cases in the northeastern city of Tabriz.

**Source:** [The Iran Project](#), [The Iran Project](#)

**March 26:** A 61-year-old male from Kahnooj city, who developed MERS symptoms on March 18, is admitted to a hospital in Kahnuj, a city located in the southern Kerman Province.

**Source:** [World Health Organization](#)

**May 8:** The National IHR Focal Point of Iran records one case of MERS and traces it to two potential patients. After two weeks of quarantine and extensive contact tracing, the patient is released from the hospital. This is the first MERS case in Iran since July 2014.

**Source:** [World Health Organization](#)

**September 26:** The Iranian Ministry of Health launches a MERS committee to preempt a possible MERS case as hajj pilgrims return to Iran. In all planes carrying the Iranian pilgrims, a self-assessment form will be distributed among passengers to declare if they have any symptoms of MERS. Passengers with symptoms will be separated from others and sent to hospital once they arrive in Iran.

**Source:** [Tasnim News](#)

**December 7:** Iranian health ministry closes schools in the Kerman province for a couple of days to slow the spread of the H1N1 virus.

**Source:** [Tasnim News](#)

**December 8:** 33 people die of the H1N1 virus in Kerman province. Mohammad Mehdi Zahedi, a member of the Majilis parliament, blames the outbreak on illegal immigration from Afghanistan into Iran. The outbreak leads to a meeting between the Interior Ministry and the United Nations to discuss how to stop illegal entry into Iran.

**Source:** [Tehran Times](#)

2016

**July 27:** Iran's Ministry of Health announces its plan to eradicate Hepatitis in 15 years.

**Source:** [Tehran Times](#)

2018

**September 15:** Iran announces a national plan for Hepatitis B prevention, which will be implemented the following month. 1.4 million people are infected with Hep B in Iran.

**Source:** [Tehran Times](#)

2019

Iran receives the measles-free certificate from the World Health Organization.

**Source:** [The Lancet](#)

2020

**January 31:** Gholamreza Jalali, commander of Iran's Civil Defense Organization, reportedly sends a letter to the armed forces' chief of staff, the secretary of the Supreme National Security Council, and Iran's interior minister acknowledging a COVID-19 outbreak in the holy city of Qom. The government does not publicly report the cases until two weeks later, on February 19.

Separately, Health Minister Saeed Namaki holds an emergency meeting with the ministers of Roads and Urban Development, Foreign Affairs, Tourism, and Cultural Heritage, after which he announces that all Iranian flights returning from China will be suspended. Iran will also conduct flights to repatriate Iranian citizens in Wuhan.

**Source:** [U.S. Institute of Peace](#), [BBC News](#)

**February 19:** Iran’s Ministry of Health announces that two elderly people died in Qom, the first cases of COVID-19 reported in Iran. Deputy Health Minister Qasem Jan-Babaei reports that the ministry has set up emergency units for treating contagious diseases in Qom. The government reportedly orders a three-day delay in the implementation of measures to stem the outbreak, ahead of parliamentary elections on February 21.

**Source:** [U.S. Institute of Peace](#), [Al Jazeera](#), [Al Jazeera](#), [IranWire](#)

**February 23:** Health Minister Saeed Namaki blames an Iranian merchant from Qom for bringing the virus to Iran. Namaki also announces that treatment of COVID-19 will be free, and that every city would have at least one hospital dedicated to treating COVID-19. The government orders the closure of schools, universities, and other educational centers in 14 provinces across the country. Art events, concerts, and films are banned for one week. Buses and underground trains are reportedly disinfected.

**Source:** [U.S. Institute of Peace](#), [Agence France-Presse](#)

**February 24:** Iran’s Ministry of Health reports 61 cases of COVID-19 and 12 deaths in the cities of Arak, Babol, Isfahan, Qom, Rasht, and Tehran. A lawmaker from Qom disputes the number and says that the death toll is 50. A preliminary medical report – not yet peer reviewed – estimates that Iran could have as many as 18,000 cases. Deputy Health Minister Iraj Harirchi expresses concern that if Iran was to close the city of Qom, people would travel and spread the disease around the country.

Separately, President Rouhani meets with his cabinet of ministers and announces that he has set up a headquarters “to prevent and combat” COVID-19 and “mobilize all our resources.” Rouhani notes that the Ministry of Health is responsible for supervising COVID-19 efforts. Iran’s Association of Medical Equipment Importers says that U.S. sanctions and new Financial Action Task Force (FATF) restrictions have made it increasingly difficult for Iran to procure COVID-19 tests.

**Source:** [Reuters](#), [Associated Press](#), [medRxiv](#), [CNBC](#), [MEMRI](#), [IFP News](#), [PressTV](#)

**February 25:** Deputy Health Minister Harirchi contracts COVID-19, one day after appearing visibly ill during a press conference. President Rouhani states that Iran’s adversaries are plotting to “spread fear” in Iran and “close down” the country.

**Source:** [Associated Press](#), [Government of Iran](#)

**February 26:** Using highly-charged rhetoric, Rouhani urges the public not to fear the virus of change its behavior. He reiterates that Iran will not quarantine cities.

**Source:** [Government of Iran](#)

Add: <https://www.bbc.com/persian/iran-features-51815296>

**March 1:** Health Minister Saeed Namaki announces a plan to dispatch 300,000 plainclothes Basij militiamen to go house-to-house to screen residents and disinfect their homes. Iranian doctors and politicians immediately criticize the plan, saying that untrained militiamen were more likely to spread the virus than to contain it. [New York Times](#)

**March 2:** France, Germany, and Britain provide Iran with a comprehensive package of material and financial support. They deliver equipment for laboratory tests and personal protective equipment, as well as 5 million euros through the WHO and other UN agencies.

**Source:** [Government of the United Kingdom](#)

**March 3:** Supreme Leader Ayatollah Ali Khamenei orders Iran's military to assist health officials with COVID-19 response efforts, with plans to potentially mobilize 300,000 soldiers and volunteers. The military will clear the streets and monitor the public for symptoms. The troops will also assist with sanitizing public areas and conducting contact tracing. Tehran's mayor orders firefighters to assist with decontamination.

The Iranian government reportedly sends a text message to all cell phones in Iran encouraging people to download the AC19 application, or the "Application for Combating Coronavirus." AC19 was created by the Tehran Headquarters for Combating Corona, the Ministry of Health and Medical Education, and the ICT. It is an Android application that provides users with a COVID-19 self-assessment test.

**Source:** [France 24](#), [Agence France-Presse](#), [Associated Press](#), [U.S. Institute of Peace](#), [Library of Congress](#), [Iran Labor News Agency](#), [Payvast Monthly](#)

**March 4:** Rouhani announces that COVID-19 has spread to nearly every province in Iran and criticizes U.S. attempts to provide humanitarian aid. He asks that the U.S. lift sanctions on medicines. The Ministry of Health reports that 92 people have died from COVID-19 in Iran and 2,922 are infected.

**Source:** [Reuters](#)

**March 5:** Iran's Ministry of Health announces that the country will embark on a national mobilization plan to combat the spread of COVID-19 in Iran. Health Minister Saeed Namaki said that 300,000 teams will be mobilized in health centers, schools, and Basij bases across the country; 26,000 health centers will be set up in cities and villages. Namaki said that the centers will test suspected patients and then monitor them in their homes. If their health does not improve within three days, they will be taken to a hospital or receive in-home care. Spokesman Kianush Jahanpur tweets a map showing the spread of COVID-19 in Iran based on the movements of patients.

**Source:** [Al-Monitor](#), [Twitter](#)

**March 8:** Four lawmakers call in the Supreme National Security Council to order the mandatory quarantine of Tehran, Qom, and other cities.

**Source:** [U.S. Institute of Peace](#)

**March 9:** Judiciary chief Ebrahim Raisi announces the release of 70,000 prisoners to combat the spread of COVID-19 in prisons. By the end of March, an additional 95,000 prisoners are temporarily released.

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

**March 12:** Iran requests a \$5 billion emergency loan from the International Monetary Fund. Foreign Minister Javad Zarif writes to UN Secretary General Antonio Guterres to urge the UN to demand that the United States lift sanctions on Iran.

**Source:** [Reuters](#)

**March 13:** Supreme Leader Ali Khamenei commands the armed forces to create a Health and Treatment Base. Khamenei states that the base should be regarded as a biological defense exercise in response to the evidence suggesting that COVID-19 is being used as a biological weapon. In a closed meeting, Khamenei and Rouhani reportedly clash on COVID-19 strategy, with Rouhani demanding that the armed forces adhere to his command. Military generals present at the meeting reportedly refuse and state that Khamenei had authorized them to act independently. The generals propose closing off Tehran and vast swaths of the country, but Rouhani argues that his government does not have the resources to support millions of people under quarantine.

**Source:** [Supreme Leader Official Website](#), [Al Arabiya](#), [New York Times](#)

**March 16:** The IRGC's chief commander states that the IRGC has 24 hospitals and 13 mobile hospitals dedicated to fighting COVID-19, along with 380 clinics prepared to assist.

**Source:** [Twitter](#)

**March 17:** Iran temporarily frees tens of thousands of prisoners as the coronavirus makes its way through prisons.

**Source:** [Al Jazeera](#)

**March 19:** Five former Iranian health ministers write a letter to Rouhani urging him to implement immediate measures, which include "limiting the movement of people, holiday trips, shutting non-essential businesses and big shopping centers." The former ministers write that all non-essential activities should be suspended for at least two weeks.

**Source:** [Radio Farda](#)

**March 22:** Supreme Leader Ayatollah Ali Khamenei rejects an offer of humanitarian assistance by the United States.

The Deputy Governor of Tehran announces that all commercial establishments in the capital must close, except for supermarkets and pharmacies. Alireza Zali, the head of Iran's coronavirus task force, announces that there has been a five percent increase in hospital visits by people infected with COVID-19, and a 12 percent increase in critical cases.

**Source:** [Reuters](#), [Radio Farda](#)

**March 23:** The UN High Commissioner for Refugees delivers 4.4 tons of medical supplies to Iran, including masks, gloves, and essential medicines. Iran rejects aid from Médecins Sans Frontières (Doctors Without Borders), including a 50-bed inflatable hospital and a 9-person emergency team.

**Source:** [U.S. Institute of Peace](#), [Radio Farda](#)



**March 25:** President Rouhani announces that Iran will implement a travel ban for the remainder of the Nowruz holiday, which began on March 20. The new measures will be in place until April 4. The Iranian government announces that it will begin accepting humanitarian aid from Médecins Sans Frontières. The Ministry of Health had initially refused the help of an MSF team that had arrived in Isfahan province, saying Iran had the necessary hospital capacity.

**Source:** [Reuters](#), [Bloomberg](#)

**March 28:** Iran plans to allocate 20 percent of its annual budget (\$6.3 billion) to combat COVID-19. Rouhani says that the state health insurance would cover 90 percent of COVID-19-linked patient costs.

**Source:** [Government of Iran](#), [Reuters](#)

**March 30:** Deputy Health Minister Harirchi states that Iran cannot rule out the possibility that the novel coronavirus is a biological weapon, and that serious investigations are underway by the national headquarters against coronavirus. He describes plans to increase the number of tests to 15,000 per day. Harirchi adds that over the past six years, Iran's ICU capacity has increased by more than 55 percent.

**Source:** [IFP News](#)

**April 1:** Senior Iranian medical officer Alireza Beglari, who supervises COVID-19 testing in Iranian labs, announces that the number of tests will double in the coming days. The number of labs conducting COVID-19 testing has also increased to a total of 90. Iran's Health Ministry announces that the number of COVID-19 cases in Iran has reached 47,593 including 15,437 recoveries. 3,036 have died from COVID-19.

**Source:** [PressTV](#)

**April 5:** Rouhani announces that low-risk economic activities will resume on April 11, without specifying which activities. High-risk activities including school and university classes, and social, cultural, sporting, and religious events will be suspended until at least April 18. Two thirds of the Iranian government begins working from home. Rouhani also extends a ban on inter-city travel.

**Source:** [Middle East Eye](#)

**April 7:** Iran's parliament, the Majles, reconvenes for the first time since February 25, with more than two thirds of lawmakers in attendance. They reject a one-month nationwide lockdown.

**Source:** [Radio Farda](#)

**April 8:** WHO Acting Regional Emergency Director for WHO EMRO, Richard Brennan, states, "Due to an impressive scaling up of many of the control measures, we have seen a flattening off of the number of cases in Iran." Iran's Health Ministry states that the total number of confirmed cases in Iran has reached 62,589, with a death toll of 3,827.

**Source:** [Mehr News](#)

**April 9-12:** On April 9, Supreme Leader Ayatollah Ali Khamenei bans mass gatherings during Ramadan, which begins at the end of April. On April 10, Davood Mohammadi, a member of the People's Assembly of Tehran, tells reporters that the closure of parliament was determined by the

National Headquarters for Combating Coronavirus, officials of the Ministry of Health, and the National Security Council. On April 11, “low risk” businesses outside of Tehran reopen, but the government announces that “high-risk” businesses would remain closed indefinitely. Businesses in Tehran are to reopen on April 18.

Iranian Deputy Health Ministry Alireza Raeisi states that more than 70 million people across Iran have been screened for the coronavirus. Raeisi attributes a sharp decline in the number of visits to hospitals and medical centers to the implementation of the screening plan over the past two months. He adds that more than 56,000 Health Ministry personnel are screening people online or via telephone.

On April 11, the Ministry of Health asks people to register with the Salamat.gov.ir website for self-assessment and medical measures and discloses a list of authorized COVID-19 apps and websites in wake of public backlash to AC19’s user data collection. On April 12, the government lifts travel restrictions between cities within the same provinces. Travel between different provinces will resume on April 20.

**Source:** [U.S. Institute of Peace](#), [Reuters](#), [Reuters](#), [Iran Press](#), [Hamshahri](#), [INSA](#)

**April 14:** Iran’s parliamentary research center issues a report that the death toll in the country is likely nearly double the government-reported figures, due to undercounting and low testing rates. The report states that the number of people infected with the coronavirus is likely eight to ten times higher than reported figures. The Health Ministry reportedly has only been counting patients who died in hospitals and tested positive for COVID-19, whereas people who died in their homes were not included in the count. The IRGC sets up a base to provide relief to 3.5 million underprivileged households, along with several charities.

**Source:** [Associated Press](#), [U.S. Institute of Peace](#), [Islamic Republic News Agency](#)

**April 21:** Iran’s Deputy Minister of Health and Medical Education indicates that the government has received COVID-19-related information for over 70 million people out of a total population of about 84 million, as a result of electronic self-assessments, telephone and in-person medical reviews, and COVID-19 testing. The Health Ministry confirms that the overall number of cases in Iran has reached 84,802, with a death toll of 5,297. The ministry states that 365,723 coronavirus tests have been conducted to far across Iran.

**Source:** [Islamic Consultative Assembly News Agency](#), [Islamic Republic News Agency](#), [Iran Front Page News](#)

**May 3:** President Rouhani announces that mosques and schools will be opening in low-risk areas in the coming days and weeks. During an official meeting with Supreme Leader Ali Khamenei, Rouhani states that roughly 83 percent of the Iranian population has complied with government guidelines and requests related to COVID-19.

**Source:** [Reuters](#), [President of Iran](#)

**May 9:** President Rouhani orders an increase in the production of COVID-19 diagnostic kits.

**Source:** [Government of Iran](#)

**May 22:** The Iranian government announces a total of 131,652 confirmed COVID-19 cases and 102,276 recoveries, with 2,659 patients in critical conditions. The World Health Organization confirms 129,341 total confirmed cases and 7,249 deaths in Iran.

**Source:** [Iran Ministry of Health](#), [World Health Organization](#)

**May 23:** President Rouhani states that Iran has gone through three stages of the fight against COVID-19, and that the fourth stage is getting underway where restrictions will become tougher and efforts expedited to detect and diagnose infected people. The three stages so far “included giving precise figures on the disease, national mobilization to fight the disease, getting through the dangerous phase, controlling the spread of the virus through social distancing and smart social distancing plan, and gradually reopening businesses,” Rouhani says. He further announces that holy shrines will reopen after the holiday Eid al-Fitr, but health protocols must be observed. Government working hours will be limited to 7:30 to 14:30 until further notice. Rouhani states that 88 percent of those who have lost their lives to COVID-18 suffered from underlying health conditions.

**Source:** [Government of Iran](#)

**May 30:** President Rouhani orders mosques to reopen and the lifting of restrictions on shopping malls, but that health protocols must be observed.

**Source:** [Government of Iran](#)

**June 6:** President Rouhani urges Iranians to social distance and use the Internet for education, shopping, and other economic activities. He advises against attending or holding wedding ceremonies or funerals. He states that Iran has no shortage of medical equipment.

**Source:** [Government of Iran](#)

**June 7:** Iran’s Ministry of Health says that a spike in cases was caused by increased testing. The Health Ministry’s head epidemiologist Mohammad-Mehdi Gouya adds that it is normal for a slight increase in cases after reopenings. President Rouhani gives approval for the conditional reopening of movie theaters and concert halls as of June 21.

**Source:** [United States Institute of Peace](#), [Government of Iran](#)

**June 17:** Three prominent Iranian physicians write a letter to President Rouhani urging him to reimpose public health restrictions and to prioritize “people’s lives and health.” President Rouhani meanwhile recognizes the contributions of Iran’s scientific community and knowledge-based enterprises in developing innovative ideas that have prevented a halt to domestic production, and for “turn[ing] Iran into a powerful exporter of certain new products.”

**Source:** [United States Institute of Peace](#), [Government of Iran](#)

**June 20:** President Rouhani mandates the wearing of face masks in areas with high risk of coronavirus. Schools and universities will reopen on September 5, he announces.

**Source:** [Government of Iran](#)

**June 28:** President Rouhani announces that masks will be required at indoor gatherings starting July 5 until July 22. He states that week-long restrictions may be reintroduced in cities that reach the “red” state as deemed necessary by local coronavirus task forces.

**Source:** [United States Institute of Peace](#), [Government of Iran](#)

**July 3:** Iran reinstates a week-long lockdown in seven cities in the province of Hormozgan as a response to the increase in cases in the region.

**Source:** [United States Institute of Peace](#)

**July 5:** Wearing masks indoors and at public gatherings becomes obligatory across Iran. During a meeting of the National Coronavirus Headquarters, President Rouhani warns COVID-19 patients against hiding their infection.

**Source:** [Government of Iran](#)

**July 11:** President Rouhani orders a ban on public gatherings amid a surge in cases. He urges all businesses to conform to health directives. He states that the coronavirus epidemic in Iran is not over, and that Iran will be dealing with it until at least the end of the Persian year, which falls on March 21, 2021, at a meeting of the Supreme Council of the Cultural Revolution.

**Source:** [Government of Iran](#), [Government of Iran](#)

**July 15:** Health Minister Saeed Namaki announces that Iran will begin producing the antiviral agent Redemsivir the following week.

**Source:** [TIME](#)

**July 18:** President Rouhani cites a report by the Health Ministry that estimated 25 million people in Iran have contracted COVID-19, and 14,000 have died from the disease. Rouhani adds that another 30 to 35 million people are prone to contract the disease. He discusses the likelihood of a second peak, referencing the report which states that Iran should expect to see hospitalizations double in the future compared to the past 150 days.

**Source:** [Associated Press](#)

**July 23:** Mohammad Mokhber, who heads the Headquarters of Imam Khomeini's Directive, announces that Iran has fully tested a coronavirus vaccine on animals and is preparing to move forward with human trials. Health Minister Saeed Namak says Remdesivir will enter the market beginning next week and that another COVID-19 medicine, Favipiravir, also entered the market.

**Source:** [Times of Israel](#)

**August 1:** President Rouhani states that COVID-19 restrictions will stay in place until a vaccine is available to the public.

**Source:** [Government of Iran](#)

**August 10:** President Rouhani states at a meeting of the National Coronavirus Headquarters, "We should follow the golden mean as it is impossible to keep stringent restrictions in place and we cannot completely shut down economic, educational and cultural activities. But at the same time, they cannot remain fully open as they were before the coronavirus outbreak."

**Source:** [Government of Iran](#)

**August 12:** President Rouhani stresses the importance of developing both a treatment and a vaccine for COVID-19.

**Source:** [Government of Iran](#)

**September 6:** Iran's academic year commences, and schools reopen for the first time in seven months.

**Source:** [Hamshahri](#)

**September 14:** President Rouhani voices concern about a 20 percent drop in the number of Iranians who are complying with health protocols amid a surge in infections, from 82 percent to 62 percent compliance. Iran's National Coronavirus Headquarters releases a report indicating that there has been a relative rise in the number of COVID-19 infections and hospitalizations.

**Source:** [Government of Iran](#)

**September 24:** President Rouhani announces that more restrictions will be imposed if a new wave of coronavirus cases should occur and safety protocols are not followed.

**Source:** [IRNA News](#)

**October 3:** President Rouhani states that further restrictions will be implemented to stem the spread of COVID-19, and violators will be fined.

**Source:** [Government of Iran](#)

**October 9:** The governor of Tehran, Anoushirvan Mohseni Bandpei, announces a requirement for citizens in Tehran to wear masks and extends restrictions initiated the previous week.

**Source:** [Trend](#)

**October 14:** The Ministry of Health announces a ban on any kind of intercity travel originating from Tehran, Karaj, Isfahan, Mashhad, and Urmia due to concerns about heightened transmission rates during the national holidays.

**Source:** [Hamshahri](#)

**October 17:** The national mourning ceremony of the eighth Shia Imam, Imam Reza, takes place across Iran. Ayatollah Khamenei leads a ceremony in Qom without the participation of people due to coronavirus restrictions.

**Source:** [Mehr News](#)

**October 22:** President Rouhani orders Dr. Mohammad Bagher Nobakht, the head of the Planning and Budget Organization, to prioritize paying nurses' wage demands.

**Source:** [Hamshahri](#)

**October 24:** President Hassan Rouhani announces a report on the activities of the government against the coronavirus in the past eight months. The report emphasizes the importance of domestic capabilities – rather than foreign aid – when combating the virus. President Rouhani notes the speed and power of the Alpha variant has increased transmission nine-fold.

**Source:** [Hamshahri](#)

**October 26:** The health ministry reports 337 new deaths and 5,960 new cases over the past 24 hours, amounting to a death every four minutes. Mohammad Shariatmadari, the Minister of Cooperatives, Labour and Social Welfare, contracts the virus.

**Source:** [U.S. News](#), [Hamshahri](#)

**October 27:** President Rouhani appoints Interior Minister Rahmani Fazli as commander of the operational headquarters of the National Headquarters for Combating Coronavirus.

**Source:** [Hamshahri](#)

**October 29:** Health Ministry Spokesperson Sima Lari discloses that coronavirus infections have reached a new record high, with the total number of cases at 596,941. There have been 2,924 new cases in the past 24 hours and 5,055 people in critical condition.

**Source:** [Mehr News](#)

## Iran – Legislation

Reliable sources for the historical legislative framework for Iran proved elusive within the time frame of this report. The Iranian constitution prohibits the invocation of martial law and calls for limiting “certain necessary restrictions” during times of emergency, such as war, to a 30-day period. Emergency decrees were issued by the Iranian government in response to the pandemic.<sup>17</sup>

## Conclusion

Although this report is coming out during what still may be the early stages of the pandemic, there are lessons to be had even at this point in time. The examples of India, Vietnam and Iran—all different from one another in terms of population size, governance structures and economic factors—provide some indications of more and less effective strategies in addressing the pandemic. Each of the countries in these reports evidenced one or more of the essential conditions for a productive response to pandemic, but without the combination of all four, there are clear fissures in their responses.

In terms of preparedness, India is distinguished for having a fairly robust, decentralized public health system, equipped to handle infectious disease at scale, especially for a lower income country with a large population. In addition, India has a history of dealing with infectious disease, and an infrastructure to vaccinate many people. Nonetheless, the lack of pandemic-related legislation in India, as in Iran, has revealed a weakness within the system.

Strikingly, Vietnam, ranked by the WHO at the turn of the century as one of the worst public health systems, benefitted from its intensive efforts to address that deficit. In addition, the

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<sup>17</sup> Sanaz Alasti, “The Iranian Legal Response to Covid-19: A Constitutional Analysis of Coronavirus Lockdown,” *Verfassungsblog*. April 24, 2020. Available at <https://verfassungsblog.de/the-iranian-legal-response-to-covid-19-a-constitutional-analysis-of-coronavirus-lockdown/>.

response to date in Vietnam has demonstrated a high level of public trust in the national government, in contradistinction to indicators in Iran and India. The combination of a fortified health system and trust in government has coalesced in a robust contact tracing system that has also proved consequential in countering the spread of the coronavirus.

Leadership, however, has continued to be a decisive factor. As in the U.S. and Brazil, where leaders have prioritized political power and/or economic factors over the health of the nation, the ability to handle the pandemic has fallen short. Trust in government, a related issue, has continued to prove important as well. In comparison to Iran and India, Vietnam demonstrated high levels of public trust in government recommendations for addressing the pandemic. Iran, whose leaders disagreed on responses to the pandemic, suffered from lack of clear leadership at the outset.