

# Kazakhstan physical distancing policies and epidemiology from January - September 2020: A case report

Policy Frameworks and Epidemiology of COVID-19  
Working Group

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# Policy Frameworks and Epidemiology of COVID-19 – Kazakhstan case report

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## Conflicts of Interest

No conflicts of interest were reported.

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### Links to supplementary materials

[Study proposal](#)

[Informed consent](#)

[Interview guide](#)

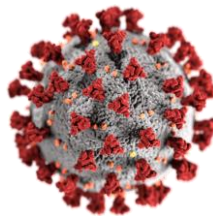
COVID-19 [Country characteristics database](#)



## I. Introduction and project description

### A new disease that spread around the world

On December 31, 2019, the World Health Organization (WHO) was notified of a cluster of individuals with pneumonia of unknown cause in Wuhan, China.(1) On January 12, 2020, China shared the genetic sequence of the novel coronavirus with other countries to help develop diagnostic tests.(1) Thailand reported the first known case of the novel coronavirus outside of China on January 13, 2020. WHO declared the novel coronavirus (2019-nCoV) outbreak a Public Health Emergency of International Concern on January 30, 2020 with 7,711 confirmed cases, 12,167 suspected cases, and 170 deaths in China and 83 cases in 18 countries outside of China.(1,2) The disease was later named COVID-19 for coronavirus disease 2019 and the virus referred to as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).(1) WHO declared COVID-19 a pandemic on March 11, 2020.(1)



### Physical distancing policies and knowledge gaps

As an emerging infectious disease, there were originally no effective vaccines or preventive treatments for SARS-CoV-2. Therefore, governments have had to rely on the use of public policies to combat the spread of the virus.(1-4) Creating policies has been difficult due to the large amount of information and ongoing uncertainty around the characteristics of the virus and who it affects.(4) One of the most commonly used policy to mitigate (slow) the spread of the virus that causes COVID-19 centres on physical or social distancing, which relies on separating people to reduce the transmission of the virus.(5) However, it is still unclear when is the best time to institute such policies and what happens when distancing policies are eased. There are many aspects of distancing, such as recommendations for maintaining a physical distance in public, banning group gatherings, or complete lockdowns, that complicate their assessment.(5) There are also many factors that have been attributed to people acquiring or having a worse outcome from COVID-19.(6-11) However, there was harmonized database available with all the policies, epidemiology and contextual information that was needed in order to perform comparative analyses useful to informing policy making.

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## About this project

The Policy Frameworks and Epidemiology of COVID-19 Working Group was developed after a “CONVERGE Virtual Forum: COVID-19 Working Groups for Public Health and Social Sciences Research.” A group of international researchers convened to explore what physical distancing policies countries implemented and their effects on the epidemiology of COVID-19. The Working Group was further supported through an award from CONVERGE and the Social Science Extreme Events Research (SSEER) Network. CONVERGE is a [National Science Foundation](#)-funded initiative headquartered at the [Natural Hazards Center](#) at the [University of Colorado Boulder](#).

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# Policy Frameworks and Epidemiology of COVID-19 – Kazakhstan case report

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# Policy Frameworks and Epidemiology of COVID-19 – Kazakhstan case report

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## II. Methods

### Research design

A qualitative embedded multiple case study research design was used to compare countries (or subnational jurisdictions, such as provinces, states or territories). The suite of public policies and resulting changes in the epidemiology of COVID-19 are examined within their specific country setting. Our cases start in January 2020. (Please see full [study proposal](#)). Research ethics approval was obtained by the Hamilton Integrated Research Ethics Board (HIREB) (Project # 11243).

### Data collection

For each country, the setting, such as health systems, political systems and demographics were described to help with interpretation of findings and potential transferability, or the degree to which findings are applicable to other sites or future research.

Publicly available data was first collected on the jurisdiction following a standardized data collection form. Epidemiological data was drawn from publicly available data. WHO, World Bank, Central Intelligence Agency and other publicly available sources were used for timelines and country characteristics, where possible. Other sources of information included governmental and non-governmental websites, news articles, government reports, and peer-reviewed journals.

Next, key informant interviews were conducted to fill in gaps, verify information found through the documentary searches, and identify further participants and documentary sources of relevant information. (See [informed consent](#) and [interview guide](#)) Key informant interviews were conducted with policymakers, health workers, researchers and other stakeholders as appropriate to fill in knowledge gaps.

### Data analysis and presentation

Our [COVID-19 policies](#) and epidemiology database harmonizes data on setting characteristics, policies, demographic characteristics and epidemiological risk factors, and outcome metrics. These will further be described in single country or jurisdiction case reports. Comparisons will be selected based on both literal and theoretical replication. Countries that have similarities in either policies or epidemiological trends can be considered literal comparisons, whereas countries that differ will be used as theoretical comparisons. These comparisons will be submitted to peer-reviewed journals for publication.





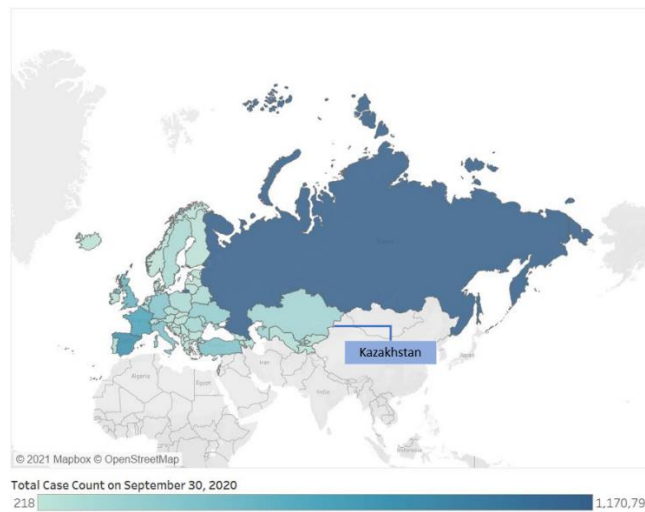
### III. Findings

#### A. Setting characteristics

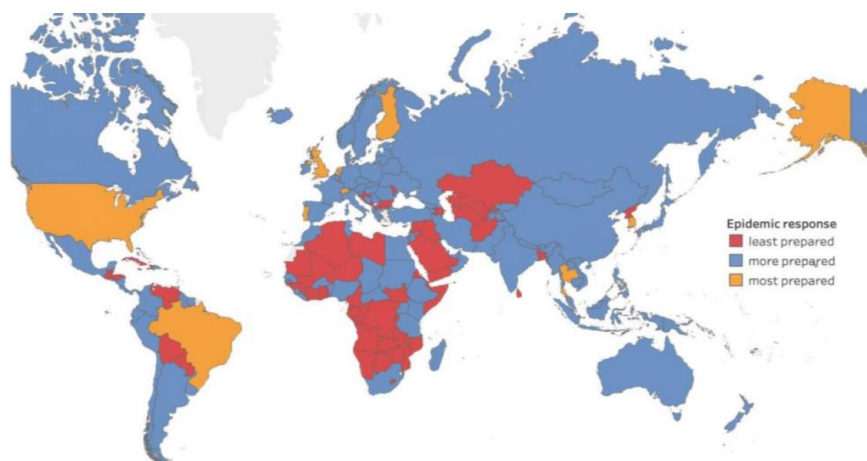
##### Geographic, environmental, social and economic contextual factors

Kazakhstan is in the WHO European Region.(12) The country had a population of 18,513,930 in 2019 and a population density of 6.77 people per km<sup>2</sup> (2018).(13, 14) Most of the population lives in the Southern and Northern regions of the country with 57.54% of people living in urban centers.(15)

**Figure 1. Heat map of Kazakhstan with total COVID-19 cases, as of 30 September 2020 (16)**



**Figure 2. Global Health Security Index epidemic preparedness rank category, 2019 (17)**



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**Table 1. COVID-19 relevant contextual factors for Kazakhstan**

Global Health Security Index, 2019 (Overall Index Score out of 100 and category) (17)	40.7- More prepared
Global Health Security Index, 2019 (Epidemic Preparedness Index Score out of 100 and category) (17)	26.6 - Least prepared
Particulate matter (PM2.5) air pollution, mean annual exposure, 2017 (micrograms per cubic meter) (18)	13.82
PM2.5 air pollution, population exposed to levels exceeding WHO guideline value, 2017 (% of total) (19)	87.41
International migrant stock, 2015 (% of population) (20)	20.12
Trust in national government, 2018 (% of population) (21)	71.39
Mobile cellular subscriptions, 2019 (per 100 people) (22)	138.58
Individuals using the internet, 2019 (% of population) (23)	81.88
Index of economic freedom, 2020 (Rank and category) (24)	69.6 - Moderately free
World Bank classification, 2020 (25)	Upper middle
Gini Index, 2017 (26)	27.5
GDP per capita, PPP, 2019 (Current international \$) (27)	27,443.57
GNI per capita, PPP, 2019 (Current international \$) (28)	24,050
Current health expenditure, 2017 (% of GDP) (29)	3.1
Vulnerable employment, total, 2020 (% of total employment) (30)	23.24
Vulnerable employment, female, 2020 (% of female employment) (31)	22.78
Vulnerable employment, male, 2020 (% of male employment) (32)	23.65
Homelessness, 2016 (%) (33)	--
Adult literacy rate, 2018 (%) (34)	99.78
Literacy rate, adult female, 2018 (% of females 15 and above) (35)	99.74
Literacy rate, adult male, 2018 (% of males 15 and above) (36)	99.83
Primary school enrolment, 2018 (% net) (37)	87.59

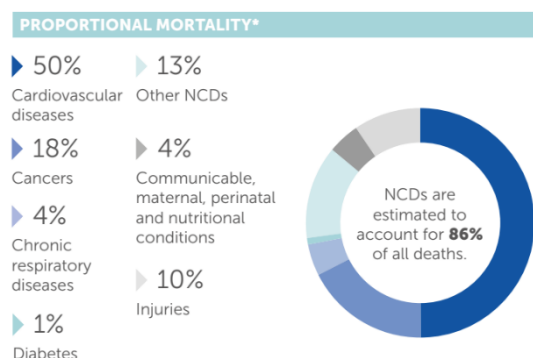
**GDP** - gross domestic product; **GNI** - gross national income ; **PPP** - purchasing power parity



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### Population health characteristics

Life expectancy at birth in Kazakhstan was 73.15yrs in 2018.(38) For males, life expectancy at birth was 68.84yrs, and for females it was 77.19yrs.(39,40) Non-communicable diseases are believed to play a role in who develops severe symptoms of COVID-19. In Kazakhstan, the proportional mortality from cardiovascular diseases was 50%, cancers 18%, chronic respiratory diseases 4%, and diabetes 1% in 2016.(41) (See Figure 3.) The probability of dying between ages 30-70 from cardiovascular disease, cancer, diabetes, or chronic respiratory disease was 26.8% for all adults in 2016, and 36.8% and 18.5% for males and females, respectively.(42)



**Figure 3. Proportional mortality from non-communicable diseases - Kazakhstan, 2016 (41)**

**Table 2. Age and health characteristics for Kazakhstan**

	Male	Female	Total
Population ages 0-14, total, 2019 (% of total population) (43-46)	2,751,867 (14.86)	2,595,172 (14.02)	5,347,054 (28.88)
Population ages 15-64, total, 2019 (% of total population) (47-50)	5,727,116 (30.93)	6,023,009 (32.53)	11,750,126 (63.47)
Population ages 65 and above, total, 2019 (% of total population) (51-54)	502,579 (2.71)	914,186 (4.94)	1,416,750 (7.65)
Current tobacco use prevalence, total, 2018 (%) (55)	42.2	6.6	24.4
Raised blood pressure (Systolic blood pressure $\geq 140$ or Diastolic Blood Pressure $\geq 90$ ), ages 18+, 2015 (%) (56)	28.4	24.8	26.5
Raised fasting blood glucose ( $>7.0$ mmol/L or on medication), ages 18+, 2014 (%) (57)	11.3	11.7	11.5
Prevalence of obesity among adults (Body Mass Index $\geq 30$ ), 2016 (%) (58)	18.8	23.4	21.3
Prevalence of Human Immunodeficiency Virus (HIV), 2019 (% of population ages 15-49) (59)			0.3
Bacillus Calmette-Guérin (BCG) Immunization coverage estimates, 2019 (%) (60)			87
Prevalence of undernourishment, 2018 (% of population) (61)			2.5

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## Governance and health systems

Kazakhstan is an authoritarian single-party presidential republic with the power for health delegated to the Ministry of Health.(62,63) The current Amanat (formerly Nur Otan until 2022) party (which is a conservative, right leaning, and nationalist) government has been in place since June 12, 2019.(64) Public health in Kazakhstan is divided into 14 regional public health units, which are responsible for implementing provincial policy but also developing local policies on public health issues.(65) Public health and healthcare in Kazakhstan have uniform governance, funding and delivery structures. There are 14 regional health systems serving 175 administrative districts, which are responsible for funding and coordinating hospital and physician services following guidelines established by the Ministry of Health.(66) Kazakhstan has been restructuring its health system since 1991 and most recently in 2020.(67) Health in Kazakhstan is funded by the central government through a general taxation system. Healthcare is free at the point of service through public insurance. Vision, dental and medications are generally covered through public insurance, and there are few private insurance options. Public health is funded through federal government revenues.(65)

**Table 3. Political and health system indicators for Kazakhstan**

Fragile States Index score, 2020 (maximum 120, higher is worse) (68)	59.8
Fragile States Index rank, 2020 (out of 178 countries, higher is better) (68)	117
Global Freedom score and status, 2020 (69)	23 – Not free
Internet Freedom score and status, 2020 (70)	32 – Not free
World press freedom index, 2020, global score (0-100, lower is better) and rank (out of 180 countries, lower is better) (71)	54.11 – 157
Physician density, 2014 (physician/1,000 pop) (72)	3.98
Hospital bed density, 2013 (beds/1,000 pop) (73)	6.7



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### Pandemic experience and preparedness

One of the most recent defining moments for infectious diseases in Kazakhstan was with the human plague in 2002 and 2003, where there were four cases in the Western part of the country associated with consuming sick camel meat.(74) Since 1948 to 2013, 704 confirmed human cases of Crimean-Congo Haemorrhagic Fever (CCHF) have been reported in Kazakhstan and the southern regions of the country are considered endemic for CCHF.(75) In July and August of 2005, Kazakhstan had an outbreak of the highly pathogenic H5N1 avian influenza that affected more than 9,000 birds.(76) The outbreak impacted large farms, as well as small backyard flocks, especially in northern parts of the country. The fall of the Soviet Union in 1991 meant that Kazakhstan was ill equipped to address epidemics in the country. In 1995 the United States Centers for Disease Control and Prevention (CDC) established a regional office in Kazakhstan. In 2005, the CDC established a Global Disease Detection Regional Center in Kazakhstan to provide assistance in containing and controlling infectious diseases, improve counter bioterrorism measures, as well as offer epidemiological training.(77) The Center, together with cooperation of international agencies, has helped contain epidemics in the country, including botulism, CCHF, meningitis, and tuberculosis, as well as assisted in the building of surveillance systems for monitoring acute respiratory illness.

There have been no cases of Middle East Respiratory Syndrome (MERS) or Ebola found in Kazakhstan.(78)

The most recent health emergency response plan, Resolution of the Government of the Republic of Kazakhstan No. 486, was created in 2017.(79) The response plan covers a range of public and animal health emergencies, including epidemics, and provides some details as to actions (prevention of and response to) to be taken in case of such an event on both the global and regional levels. Epidemics and epizootic events, for example, require the establishment of quarantine zones, informing the public and response teams, and if needed, an establishment of veterinary measures. The plan does not include a course of action for vulnerable populations or particular groups.

Kazakhstan has a public laboratory system, including public health, hospital, academic centres, as well as a mix of public-private partnership laboratories. At the beginning of the COVID-19 pandemic, tests in Kazakhstan were conducted in 9 laboratories at the regional level and then sent to Almaty National Reference Laboratory for confirmation tests (80). There were delays in reporting during this time, compounded by systematic undercounting of cases, a lack of coordination between laboratory systems, restrictive testing criteria, and lack of capacity and supplies for collecting samples and running the lab tests.(81, 82, 83) COVID-19 testing and reporting in Kazakhstan has been coordinated by public health units on the regional level and the Ministry of Health of Kazakhstan.(84) By April 30, 2020, free tests were administered to 250,000 individuals for free.(85, 86)

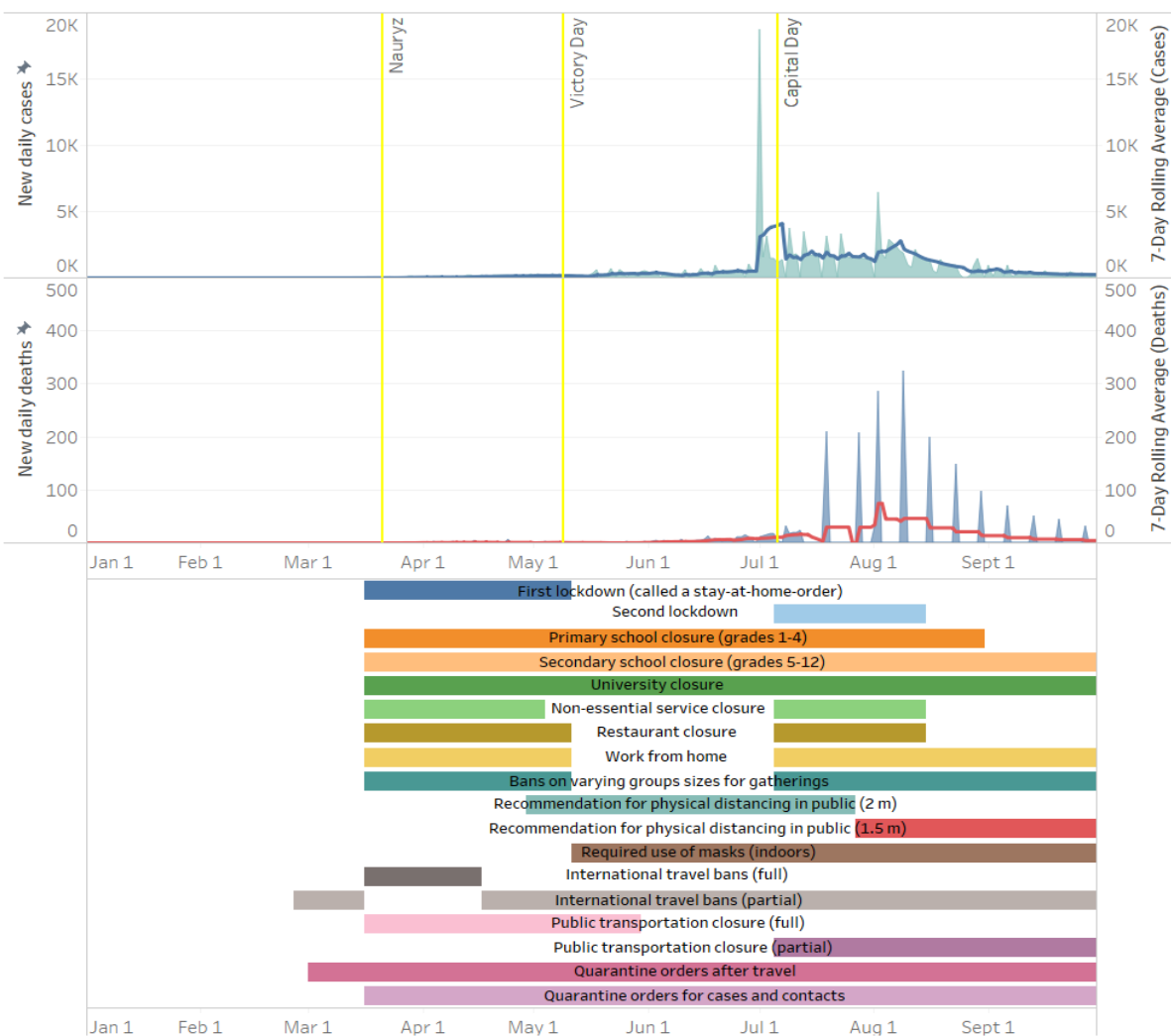


## B. Policies and epidemiology

### Cases and physical distancing policies

Kazakhstan’s first case of COVID-19 was officially recorded on March 13, 2020, and it had 100 confirmed cases by March 21, 2020.(87) A state of emergency was declared on March 15, 2020 and implemented on March 16, 2020 by the Decree of the President of the Republic of Kazakhstan No. 285; at the time the state of emergency was implemented, there were 19 cases and 0 deaths.(88,89) As of October 5, 2020, there were 108,236 cases and 1743 deaths in Kazakhstan.(90) Figure 4 shows the number of daily cases and deaths in Kazakhstan and dates for selected physical distancing policies from January to September 30, 2020.

Kazakhstan COVID-19 case & death counts and physical distancing policies



**Figure 4. Number of reported COVID-19 cases and deaths in Kazakhstan with select policies from January to September 30, 2020**



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### Description of events in Kazakhstan

The main spokesperson for Kazakhstan's COVID-19 response has been the country's President Kassym-Jomart Tokayev. He, along with Kazakhstan's Prime Minister Askar Mamin, Deputy Prime Minister Yeraly Tugzhanov, Minister of Health Elzhan Birtanov (who was arrested for corruption) and replaced with Alexei Tsoi on June 25, 2020, and Chief Sanitary Doctor Aizhan Yesmagambetova have provided updates on the COVID-19 situation and have led the creation of and informed the public about upcoming policies used to mitigate COVID-19.(91, 92, 93) At the federal level, President Tokayev, Prime Minister Mamin, Minister of Health Birtanov (and later Tsoi), have provided communication about policy actions, and Chief Sanitary Doctor Aizhan Yesmagambetova, Minister of Information and Social Development Aida Balaeva, and Minister of Internal Affairs Erlan Turgymbaev have provided guidance on COVID-19 measures. Regional and district health units have been tasked with implementing federal policies, which were used, among others, to define and manage people with COVID-19.(94) On January 27, 2020, President Tokayev created an Interdepartmental Commission on Preventing the Emergence and Spread of Coronavirus in Kazakhstan, chaired by the Deputy Prime Minister (at the time, Berdibek Saparbayev), to coordinate activities to prevent the spread of COVID-19.(95)

Kazakhstan has generally followed what can be called a containment and then a mitigation strategy.(96) Messaging on this strategy was inconsistent, although there has been a call to follow the World Health Organization Challenge # SafeHands to practice proper hygiene and hand washing.(97) Many citizens did not follow sanitary or distancing guidelines to prevent the spread of COVID-19 because of mistrust of federal authorities. Kazakhstan was already dealing with overcrowded and understaffed hospitals, lack of medicines, and long wait times for accessing any form of healthcare.(98) At the beginning of the pandemic, there was little public support for federal and regional government actions.(99,100)

Although an obstetrician working in the city of Almaty, Duman Aitzhanov, claimed to know of at least 70 cases as early as January, Kazakhstan officially reported its first case of COVID-19 on March 13, 2020.(101) The first officially documented cases were travel-related, and not many Kazakhstanis were reported to be affected directly by COVID-19 until mid-March, when there were hospital and intensive care unit (ICU) cases and noted community transmission.(102) A state of emergency was declared on March 15, 2020 and enacted on March 16, 2020 by President Tokayev.(103) This included the introduction of quarantine, as well as closing all facilities providing indoor recreational programs, public libraries, all schools and child care centres, all bars and restaurants (with the exception of those that had the capacity to facilitate pick-up orders), and all theatres and concert venues.(104) Elective medical procedures / surgeries were suspended starting March 16, 2020 in anticipation of the need for medical services directed to treating people with COVID-19, but some health centers were allowed to provide services offered by appointment only.(105) Routine medical assistance was provided to cancer patients, those in need of dialysis, pregnant women and children, as well as to those with life threatening conditions.(106) On March 19, 2020, the cities of Nur-Sultan (currently named Astana) and Almaty were placed under lockdown and strict quarantine regime, followed by the cities of Atyrau, Karaganda and their satellite cities on March 30, 2020, West Kazakhstan





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and Akmola regions on March 31, 2020, and the rest of the country by April 1, 2020.(106-109) Citizens in lockdown areas were under stay-at-home orders and were forbidden to leave their place of residence without a pass to go to work or to purchase food or medicine. Kazakhstan enforced quarantine through electronic surveillance and several residential complexes in Almaty were also isolated.

Travel recommendations were enforced beginning March 16, 2020. Non-essential travel to and from Kazakhstan and between cities, towns, and villages was not allowed. At the federal level, partial international travel bans came into effect on February 26, 2020 with the suspension of flights from Iran, China, South Korea, and Italy, and on March 16, 2020 comprehensive restrictions on entry to and exit from Kazakhstan were imposed.(110-112) On March 22, 2020, roadblocks and checkpoints were set up along the perimeter of Nur-Sultan and Almaty and other large cities and some villages by April 2, 2020. A stay-at-home order was imposed until April 27, 2020 (extended to May 11, 2020) and a less strict one reimposed on July 5, 2020 easing on August 15, 2020.

Public health and distancing measures, including a ban on all public events and gatherings, were initially implemented on March 16, 2020, with subsequent adjustments with easing lockdowns implementing physical distancing to 2 meters on April 29, 2020, and later amending it to 1.5 meters on July 27, 2020.(113) Those over the age of 65 were not allowed to leave their place of residence until the end of first lockdown on May 11, 2020 and their movement was restricted again beginning July 5, 2020 during quarantine measures introduced by the State sanitary doctor decree No. 44.(114) Mask wearing was not initially recommended due to shortages of personal protective equipment (PPE) for frontline workers and masks; however, beginning on May 11, 2020, mask wearing became obligatory when two or more people walked together on the street (although it was not part of written rules), and subsequently mandatory for all persons in closed premises, public transportation, and on the street in all regions of the country on July 27, 2020.(115) Wearing masks outdoors, even if walking alone, was recommended, but exceptions were made for people exercising outdoors. Rural areas, however, were not subject to the same level of monitoring as larger urban centers and some people chose to flee cities to avoid lockdown measures or government oversight altogether.(116) There had been increased cleaning and disinfection for public settings, including transit, but only in urban centers, including the cities of Almaty and Nur-Sultan.(117, 118)

There was a ban on gathering outside during the stay-at-home order beginning March 16, 2020 until May 11, 2020. Easing of restrictions began on April 29, 2020 in Almaty region, then elsewhere, and gathering of groups over 3 people were banned.(119) During both the March 16, 2020 and July 5, 2020 stay-at-home orders, all large group gatherings were suspended, and no exceptions were made for weddings, funerals, religious activities, and child care. Exempt from this requirement were state and local government bodies, law enforcement, health care organizations, grocery stores, and pharmacies. The state of emergency ended on May 11, 2020 and there was easing of restrictions, but many orders continued. On May 11, 2020, hair salons, laundry, and car dealerships reopened and visits to parks and entertainment venues were allowed for groups of no more than 3 people or members of one family.(120, 121) On May 30,





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2020 beaches, fitness centers, saunas, resorts, bus and railway stations were reopened. There was no restriction on group size, but social distancing and mask wearing were to be practiced. On July 5, 2020 during the second lockdown, gathering in groups of more than 3 people was not allowed.(122) However, on August 15, 2020, group sizes for outdoor physical training were limited to no more than 5 people in a group, and on August 28, 2020, religious sites (for private prayer only), museums, and libraries allowed groups of no more than 30 people, with national park visits restricted to groups of no more than 15 people.(123) The general rule was one person per five square meters. Schools limited class size to 15 children in grades 1 to 4, while indoor activities in fitness centers, pools, or saunas were allowed for groups of no more than 5 people by appointment only, with stricter measures enforced on weekends following the Decree of the State sanitary doctor No. 50.; outdoor entertainment was permitted with no more than 50 individuals in a group starting on September 16, 2020.(124)

Factors leading to poor uptake of policy interventions at the beginning of the pandemic included a sense from the population that highlighted mistrust of the government.(125) Social media was also used to spread conspiracy theories, despite government efforts to carry out public education campaigns to prevent their spread.(126) Social distancing, especially in between lockdowns, was rarely practiced. Overall, key informants stated that the approach in Kazakhstan was initially not successful for mitigation but was better managed during the July resurgence of the virus.(127) There was very little balance between keeping people safe and hospitals not being overwhelmed, along with social and economic considerations. Physical distancing, limits on public gatherings, and making masks mandatory were not helpful in combating COVID-19 in Kazakhstan. Over 16,000 people were detained for violating orders, with more than 1,500 people in the first month of lockdown.(128, 129) Journalists, physicians, and others were harassed by authorities for reporting on the pandemic. One interviewee felt that a full lockdown at the beginning of the pandemic was the only policy that worked well in preventing the spread of COVID-19.(130)

Other challenges were also highlighted. There have been inconsistencies in messaging, especially from government officials.(131, 132) For example, as part of the government's counter-disinformation strategy, police arrested obstetrician Duman Aitzhanov for "disseminating false information" about when COVID-19 appeared in the country. Charges against Aitzhanov were dropped in June, creating confusion about what counted as disinformation. Conspiracy theories and public mistrust have been the biggest problem the government has faced. During the early stage of the pandemic, many individuals, including most interviewees, believed that the pandemic was a hoax. One interviewee also felt that the government's lack of strong public health messaging during and after state of emergency orders were lifted exacerbated the problem. Generally, messaging focused on avoiding crowded places and observing good hygiene, rather than physical distancing and mask wearing. Many people did not follow sanitary or physical distancing rules. One interviewee pointed out that on June 3, 2020, the Ministry of Health stopped counting asymptomatic cases, which made the number of infections look much smaller than they were, and the pandemic less dangerous. On July 1, 2020, asymptomatic cases were once again included in the tally, while suspect and probable cases of COVID-19, which were labeled as "unknown pneumonia" in official numbers,



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were excluded by the Kazakhstani government until August 1, 2020, when they were merged with COVID-19 cases; however, “unknown pneumonia” cases continued to be counted separately.(133, 134) Lack of data transparency has led to poor implementation of health policies, as well as increased mistrust between the government and the public. One interviewee pointed to the government’s failure of stocking pharmacies as further proof that the government could not be trusted. They blamed Kazakhstani authorities’ inability to address the severe shortage of all drugs normally available to the general public to the rise of black-market trades in medications like aspirin, originally shipped to Kazakhstan as part of humanitarian support from the United States, China, and the Russian Federation. Mistrust of the government meant that more needed to be done in terms of clear public health communication. There was also lack of PPE and testing capacity and supplies, including caps on tests in assessment centres. One interviewee felt that not having enough PPE, the diagnosing of COVID-19 cases as non-specified pneumonia, and the general undercounting of cases influenced the policy decisions made, such as reopening in May that led to a spike in the number of infections during the summer. There was also not enough PPE to handle a large influx of patients in the hospitals.(135, 136) Hospitals were particularly vulnerable, and many issues were brought to the fore because of COVID-19.(137) Once this situation was better understood, directives were put in place, such as workers receiving PPE, not being allowed to work at more than one facility, monthly testing of medical workers, and restrictions on hospital visitors, which helped mitigate some of the cases in hospitals. Understanding and compliance with policies by the public were also challenges, in which people were asked to keep physical distance and wear masks in closed spaces and outdoors.(138) However, physical distancing and mask wearing were not enforced, and people rarely followed these recommendations.

Transition measures were implemented during re-opening in Kazakhstan. The measures were part of an ad hoc approach to re-opening and not based on stages. On April 29, 2020, the government approved a list of businesses that could operate beginning on May 4, 2020. The list allowed for the opening of medical and dental clinics (by appointment only), hair salons, law offices, insurance companies, and all non-food shops with a 150 square meter area or less until 5pm. On May 10, 2020, citizens were allowed to go to work provided they had a work permit (certificate) and were registered in their place of residence. On May 22, 2020, large supermarkets, hair salons, car dealerships, and other businesses were allowed to be opened from 10am to 4pm. On May 30, 2020, saunas, public swimming pools, beaches, fitness centers, bus and railways stations, and parks were reopened. On July 5, 2020 all activity was restricted again until August 15, 2020 and non-essential businesses were able to operate on weekdays only. At the end of August, President Tokayev announced that schools would operate remotely, with the exception of grades 1 to 4 with classes of no more than 15 students.

Starting as early as March 15, 2020, the federal government introduced measures to support workers who lost their income due to COVID-19 or the state of emergency, thereby supporting physical distancing policies through economic relief for individuals and businesses.(139, 140) Workers received a social benefit of 42.5 thousand Tenge (\$102 USD) per month for the duration of the state of emergency from the state social insurance fund, and employees who lost jobs in March or April could apply for unemployment assistance for a maximum of 40



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percent of their salaries for a period of up to six months.(141) On March 31, President Tokayev added 10% to pensions and annual social benefits. The government also provided targeted social assistance to families and individuals in the form of free groceries and household items starting April 1, 2020 to July 1, 2020. In places where strict quarantine measures were introduced, low-income families and people with disabilities were reimbursed partial utility expenses, as well as received food packages. Informal workers were generally excluded from social protections. Obtaining financial assistance online was cumbersome and confusing. People living in rural areas and without internet access could not request aid. On March 30, 2020, the Prime Minister and the Ministry of Labor and Social Protection announced a one-time payment of 2 million Tenge (\$4,800 USD) to infected medical workers, and 10 million Tenge (\$23,507 USD) in the event of death.(142) In March, the Kazakhstani government suspended bank loan repayments for 90 days for small and medium businesses, as well as deferred tax payments (property, business, and agricultural land) until December 31, 2020. The government also offered subsidized loans to help small and medium-sized businesses, subsidized mortgage, and tax incentives to agriculture and tourist industries. There was no mortgage deferral, rent assistance, or eviction freezes for households.

Several suggestions for future waves of the COVID-19 pandemic or future pandemics were provided by interviewees.

- It was highlighted that for public trust, and therefore compliance of public health measures, it is important that government spokespeople provide clear public health guidelines.
- Clear public messaging is important. Conspiracy theories were the biggest problem in getting people to follow public health orders and also led to panic-buying of medicines and food items. All interviewees said that early in the pandemic, the government did a poor job in helping to avoid panic and to counter disinformation. Two interviewees said that arrests of whistle blowers and journalists for allegedly spreading false information further solidified public view that authorities could not be trusted. Moreover, corruption and discriminatory application of public health measures solidified mistrust.
- A late start in testing and undercounting of cases led to increased community transmission and mistrust of government officials.
- The absence of clear messaging for people to wear masks or maintain physical distance was also considered a failure in this pandemic. The government's messaging that focused solely on avoiding crowds and on practicing good hygiene was seen as inadequate in preventing the spread of the virus.
- Preventive measures such as social distancing and remote work, where possible, were seen to help mitigate COVID-19 cases. Quarantine and lockdowns, however, were seen as the best solution for stopping virus transmission.



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- It was noted by all of the interviewees that family obligations (weddings, religious feasts, holidays) made it difficult for people to follow pandemic plans. All interviewees noted that there was too much social pressure to be present at these events.
- All interviewees were certain that Kazakhstan followed WHO recommendations on proper hand washing. No other WHO recommendations were discussed, although all mentioned that Kazakhstan adhered to WHO recommendations.
- There was too much pressure from the government to show local and regional success in keeping case numbers down. All interviewees said that this caused undercounting of cases and led to early reopening measures that resulted in a summer spike in infections.
- In the community, having established networks helped in mobilizing resources, especially access to food and medicines.
- Information technology (IT) was important for remote work, remote learning, and the sharing of information about COVID-19. People in rural areas still do not have access to IT technologies, which exacerbates inequities. IT was also blamed for the proliferation of conspiracy theories.
- All interviewees said that government's reliance on computing for citizens to access financial aid was a problem, because many people did not have computers at home. Because aid was dispersed via banks, large numbers of people had to open bank accounts to get access to funds.
- Due to a lack of PPE early in the response, earlier planning for PPE needs to be included in any pandemic plan. Lack of PPE and medicines, especially antibiotics was a problem.
- Interviewees noted that there was uneven public health policy implementation across the country. There was little oversight in rural areas. It was also noted that some people resorted to leaving cities for rural regions to avoid lockdown. Some interviewees believed that this led to localized outbreaks in rural areas that have yet to be documented.
- Transportation and lack of finances were issues that arose throughout the pandemic to support the most vulnerable within communities. Interviewees agreed that government financial support was inadequate.
- COVID isolation centres could provide resources and shelter for those needing to quarantine or to recover from COVID-19.
- Interviewees said that lack of critical thinking education or "Soviet-era thinking" led to the failure of public health policies. All interviewees found the Ministry of Health's attempt to decrease "negative" coverage to deflect attention away from the crisis.



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### Disproportionately affected populations

There were certain groups that were affected disproportionately in Kazakhstan.

#### **Hospital Workers**

Although hospitals experienced outbreaks in Kazakhstan, little was known about them. One outbreak in particular gained public attention. On April 17, 2020, more than 200 healthcare workers and patients tested positive for COVID-19 at one hospital in the city of Almaty. The hospital was under quarantine from April 11, 2020. One physician reported that 98 percent of employees tested positive for the virus. Lack of PPE was to blame.(143)

#### **Oilfield Workers**

Kazakhstan had dozens of large worker camps located next to the Tengiz oilfield in the West of the country. They were operated by Tengizchevroil consortium. Workers were housed in cramped living quarters, some with a 2,000-bed capacity. Earliest cases of COVID-19 occurred on April 8, 2020.(144) In May, nearly 20,000 workers were sent home or two-thirds of the workforce.(145) On July 12, 2020, 2,160 oil workers tested positive for COVID-19 in 36 worker camps. The number of deaths was unknown. The Atyrau Region, home of the Tengiz oilfield, was the hardest hit region in Kazakhstan.(145) The Government Commission ordered Tengizchevroil to reduce crude production by 22 percent in May and June to limit the number of workers on site.(146)

#### **Low Income Populations**

Low-income populations experienced a worsening financial situation due to quarantine measures, reporting challenges such as insufficient funds for food, utility payments, and resorting to borrowing money or taking out loans for essential goods; many faced obstacles in accessing state assistance and encountered difficulties in registering for aid during the initial quarantine period.(147)





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## Comparisons with other country responses

There are many concerns in trying to compare countries’ responses to COVID-19. This is shaped by limitations of the data itself and differences in contextual factors. A separate paper by this working group describes limitations of COVID-19 data.(148) Table 4 presents a list of countries and their use of different physical distancing policies.

**Table 4. Comparative national-level responses to COVID-19 by country – updated August 21, 2020 (filled in means policy was implemented in that jurisdiction)**

Category	Policy	AUS	BGD	BRA	CAN	CHN	CUB	DNK	DJI	EGY	ENG	FRA	GHA	IND	IRN	IRE	KAZ	NDL	NZL	NIR	PAK	RUS	SCL	SLE	SGP	KOR	SRI	UAE	VN	WLS	
Government	State of emergency																														
Case Management	Recommended self-isolation after travel																														
	Recommended self-isolation for cases																														
	Recommended self-isolation for symptoms																														
	Recommended self-isolation for contacts																														
	Separation of cases or suspected cases within institutions																														
Closure	Non-essential service closure																														
	Closing restaurants																														
	Suspended elective medical/dental procedures																														
Detection	Surveillance systems																														
	Contact tracing																														
	Assessment centres																														
	Drive through testing centres																														
	Mass fever screening in public transportation																														
	Economics	Economic relief policies for individuals/families																													
Economic relief policies for businesses																															
Housing economic relief																															
Anti-hording																															
Anti-price gouging																															
Education	School closure - daycare																														
	School closure - elementary school																														
	School closure - high school																														
	University closure																														
Health Workforce	Health workers allowed to only work at one site																														
	LTC Health workers allowed to only work at one site																														
Healthcare Resources	Audio/video telehealth																														
	Telehealth access to prescription medication																														
Physical Distancing	Physical distancing recommendation																														
	Ban on group size																														
	Quarantine orders after travel																														
	Quarantine orders for cases																														
	Quarantine orders for contacts																														
	Isolation for vulnerable populations																														
	Work from home/remote work																														
	Recommended use of masks/PPE for public																														
	Required use of masks/PPE for public																														
	Quarantine for "at risk" or priority neighbourhoods																														
	Lockdown																														
Public Decontamination	Public decontamination transit																														
	Public decontamination streets																														
Travel bans	International bans for non-essential travel																														
	Screening at airports/borders																														
	Closing public transportation																														

**AUS**–Australia, **BGD**–Bangladesh, **BRA**–Brazil, **CAN**–Canada, **CHN**–China **CUB**–Cuba, **DNK**–Denmark, **DJI**– Djibouti, **EGY**–Egypt, **ENG**–England, **FRA**–France, **GHA**–Ghana, **IND**–India, **IRN**–Iran, **IRE**–Ireland, **KAZ**–Kazakhstan, **NDL**–Netherlands, **NZL**–New Zealand **NIR**–Northern Ireland, **PAK**–Pakistan, **RUS**–Russia, **SCL**–Scotland, **SLE**–Sierra Leone, **SGP**–Singapore, **KOR**–South Korea, **SRI**–Sri Lanka, **UAE**–United Arab Emirates, **VN**–Vietnam, **WLS**–Wales



### IV. Discussion of main findings, limitations, and next steps

Kazakhstan had a population of 18.5 million people in 2019, with 107,833 cases and 1,725 deaths as of September 29, 2020. This is no doubt an undercount of cases, as the health authorities excluded asymptomatic and suspect cases. There was also a delay in setting up testing at the beginning of the pandemic, and Kazakhstan dealt with a lack of testing supplies, lack of laboratory capacity, and lack of PPE. There may be further limitations to data on COVID-19 due to publicly unavailable ethnicity-based or sociodemographic data related to the pandemic.(149) Since then, supplies have been secured for testing as well as for PPE. With an upsurge in the numbers of cases, people have been required to test if symptomatic, at high risk, or with potential contacts. Free testing was available to four categories: 1) those who entered the country from abroad; 2) those and their contacts who are symptomatic; 3) those who worked with COVID-19 patients; and 4) individuals in nursing homes.(150) Tests were available only in major cities in hospitals, medical clinics, and specifically designated laboratories.

As businesses re-opened during the summer, Kazakhstan saw an upsurge in the number of cases and entered its second wave of the pandemic. Kazakhstan tightened nationwide restrictions and reimposed lockdowns in July 2020. In August 2020, the government signed a contract with the Russian Federation to get supplies of its COVID-19 vaccine, Sputnik V.(151) Although the Ministry of Health launched a campaign to fight misinformation, it had little impact. Rumors of government poisoning people or that COVID-19 was a hoax spread online. (152) Due to shortages of medicines and overcrowding in hospitals, many people chose to self-treat with homemade remedies that included eating mutton fat or horseradish.

Moreover, the Ministry of Health's attempt at clear messaging and use of fines to encourage physical distancing mostly failed to change public behavior.(153) There were instances of people, young and old, not following public health guidelines during the easing of restrictions. The effects of these events, combined with school and workplace opening, and public resistance to public health measures were yet to be seen.

The implementation of strict quarantine measures restricted many freedoms for Kazakhstani citizens. National borders were closed, and military checkpoints were established around major cities. In some instances, the authorities sealed off entire multistory apartment blocks where COVID-19 cases were reported, trapping people inside for several weeks.(154) Since the pandemic began, there were dozens of cases of persecution and detention of activists, medical workers, journalists, and others who criticized the government's pandemic approach.(155)

Although the authorities provided modest financial support to citizens and businesses, many people living in rural areas could not access aid because of lack of resources. Kazakhstan launched a website to inform the public of the numbers of cases. The website did not include sex, age, and ethnically disaggregated data, or data on health workers, students, prisoners, or individuals in long-term care facilities.(156) Data on school-related cases in students and staff came mostly from local news reporting. Officials have been accused of suppressing the number of COVID-19 infections and deaths. In July 2020, a group of seven independent media in



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Kazakhstan launched their own database that included the names, sex, age, place of residence, and occupation of people who died from the virus.(157)

### Conclusions

It is without a doubt that COVID-19 has caused significant loss of life, economic hardship and social changes in Kazakhstan. Long-term effects have yet to be fully understood. There were restrictive measures put in place due to the increase in numbers, such as mandatory wearing of masks, restrictions on the group sizes allowed in public, and movement. However, further contextualized research needs to be conducted to determine which physical distancing policies are the most effective for specific settings. It is also imperative to improve surveillance and reporting systems locally and internationally to deal with this and future pandemics. Comparative work is being conducted by this Working Group to understand what policies work, where and why.





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