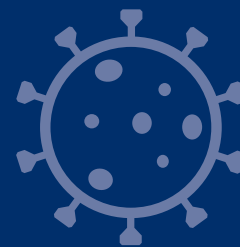


# Country Case Study: Mongolia



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*On the cover: Providing COVID-19 vaccine delivery in the field*

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Republic of Korea – World Bank Group Partnership  
On COVID-19 Preparedness and Response

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**September 2023**

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## LIST OF ACRONYMS

ACRONYM	ACRONYM EXPANDED
<b>ADB</b>	Asian Development Bank
<b>AIIB</b>	Asian Infrastructure Investment Bank
<b>APSED</b>	Asia Pacific Strategies for Emerging Diseases
<b>BPO</b>	General Authority for Border Protection of Mongolia
<b>CHE</b>	Current Health Expenditure
<b>CGAM</b>	Customs General Administration of Mongolia
<b>CITA</b>	Communications and Information Technology Authority
<b>CLIA</b>	Clinical Laboratory Improvement Amendments
<b>COVAX</b>	COVID-10 Vaccines Global Access
<b>EC</b>	Emergency Commission
<b>ECMO</b>	Extracorporeal membrane oxygenation
<b>ELISA</b>	Enzyme-linked immunoassay
<b>EOC</b>	Emergency Operation Center
<b>FGD</b>	Focus group discussion
<b>FGP</b>	Family Group Practice
<b>FHC</b>	Family Health Center
<b>FM</b>	Finance Minister
<b>GASI</b>	Government Agency for Specialized Inspection
<b>GAVS</b>	General Authority for Veterinary Services
<b>GDP</b>	Gross Domestic Product
<b>GGHE</b>	General government health expenditure
<b>GIA</b>	General Intelligence Agency of Mongolia
<b>HAP</b>	High alert preparedness
<b>HIF</b>	Health insurance fund
<b>HIGA</b>	Health Insurance General Authority
<b>ICT</b>	Information and communication technologies
<b>ICU</b>	Intensive care unit
<b>IEC</b>	Information, education, and communication
<b>IHR</b>	International Health Regulations

<b>ACRONYM</b>	<b>ACRONYM EXPANDED</b>
<b>IMF</b>	International Monetary Fund
<b>IMS</b>	Incidence Management System
<b>JEE</b>	Joint External Evaluation
<b>JICA</b>	Japan International Cooperation Agency
<b>KOICA</b>	Korea International Cooperation Agency
<b>LCO</b>	Local council organization
<b>MCAA</b>	Mongolian Civil Aviation Authority
<b>MCUD</b>	Ministry of Construction and Urban Development
<b>MES</b>	Ministry of Education and Science
<b>MICS</b>	Multiple Indicator Cluster Survey
<b>MMHI</b>	Ministry of Mining and Heavy Industry
<b>MNE</b>	Ministry of Nature, Environment
<b>MNT</b>	Mongolian Togrog
<b>MNUMS</b>	Mongolian National University of Medical Science
<b>MOD</b>	Ministry of Defense
<b>MOF</b>	Ministry of Finance
<b>MOFA</b>	Ministry of Foreign Affairs
<b>MOFALI</b>	Ministry of Food, Agriculture and Light Industry
<b>MOH</b>	Ministry of Health
<b>MOJHA</b>	Ministry of Justice and Home Affairs
<b>MRTD</b>	Ministry of Road and Transport Development
<b>NCCD</b>	National Center for Communicable Disease
<b>NCDs</b>	Noncommunicable diseases
<b>NCGE</b>	National Committee on Gender Equality
<b>NCPH</b>	National Center for Public Health
<b>NCZD</b>	National Center for Zoonotic Diseases
<b>NDUP</b>	National Deployment and Vaccination Plan
<b>NEMA</b>	National Emergency Management Agency
<b>NHDC</b>	National Health Development Center

## LIST OF ACRONYMS

<b>ACRONYM</b>	<b>ACRONYM EXPANDED</b>
<b>NHIC</b>	National Health Insurance Council
<b>NHRC</b>	National Human Rights Commission
<b>NPA</b>	National Police Agency
<b>NPIS</b>	Nonpharmaceutical interventions
<b>NSC</b>	National Security Council
<b>NSO</b>	National Statistical Office
<b>ODOT</b>	One door-one test
<b>OOP</b>	Out-of-pocket payments
<b>PCR</b>	Polymerase chain reaction
<b>PHSM</b>	Public Health and Social Measures
<b>PPM</b>	Provider payment mechanism
<b>PHC</b>	Primary health care
<b>RMNCH</b>	Reproductive, Maternal, Newborn, and Child Health
<b>SEC</b>	State Emergency Commission
<b>SHC</b>	Soum health care centers
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>UHC</b>	Universal Health Coverage
<b>UNDP</b>	United Nations Development Programme
<b>UNICEF</b>	United Nations Children's Fund
<b>UP</b>	Universal preparedness
<b>USAID</b>	United States Agency for International Development
<b>VAT</b>	Value-added tax
<b>WB</b>	World Bank
<b>WHO</b>	World Health Organization
<b>WSSA</b>	Water Supply and Sewerage Authority of Ulaanbaatar city

# EXECUTIVE SUMMARY

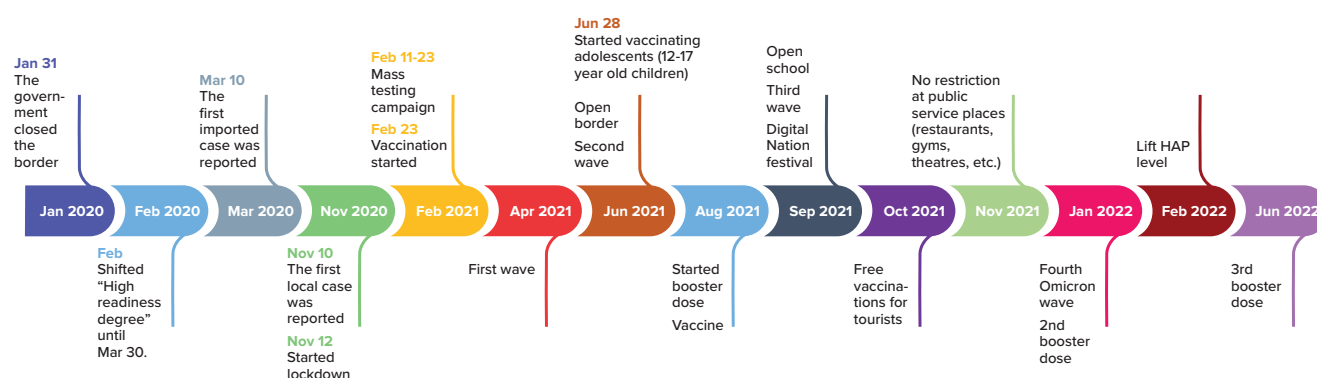
Since the time when COVID-19 was reported in China to June 2022, Mongolia has experienced six phases of the infection with four major waves: a) January to November 2020: only imported COVID-19 cases, b) mid-November 2020 to mid-March 2021: few cluster cases, c) the first wave with its peak in mid-April 2021, d) the second wave with its peak in mid-June 2021, e) the third wave with its peak in September 2021, and (f) the fourth wave with its peak in January of 2022 (Figure 1). The second wave of COVID-19, with more aggressive local transmissions, covered the entire country and led to the third wave, due to increased movement of the people for summer holiday trips to rural areas. As indicated in the June 2022 report from the National Center for Communicable Disease (NCCD), the total number of COVID-19 infected cases was 953,695 and deaths were 2,118.

The fast and stringent large-scale public health and social measures (PHSM) taken by the government when the outbreak began in early 2020 (Figure 1), helped Mongolia to contain COVID-19 without a local epicenter until November 2020. These early PHSM included an announcement of national preparedness and alert; closure of country borders, which stopped international travel; personal hygiene, especially

mask wearing; and social distancing among the population. These interventions provided time for the government to improve COVID-19 preparedness and response in mobilizing additional resources; develop standard operating procedures; undertake an assessment of the physical infrastructure for public health emergency preparedness, human resources, medicines, and supplies; and train medical and nonmedical personnel. However, some public health measures raised questions and concerns. For instance, the mass testing—“one door-one COVID\_19 test” (ODOT) in Ulaanbaatar was poorly organized; decision regarding the reopening of the lockdowns led to unregulated increase in population movement. Such incidences further facilitated the spread of infection nationwide.

Meanwhile, the country was learning from the experience of other countries in areas including tracking the COVID-19 variants and infection patterns; adapting internationally researched testing methods, clinical guidelines, drugs, medical devices, innovations, and solutions using advances in information technology; waiting for vaccine production and preparing the rollout plans for vaccination; sensitizing the population; and appropriate risk communications.

**Figure 1:** Milestones of COVID-19 Pandemic Situation in the Country



Lockdown, travel restriction, quarantine, contact tracing, isolation, and other mitigation actions have been led by a multisectoral team of the highest level—namely, the State Emergency Commission (SEC), which is chaired by the deputy prime minister, following the Disaster Protection Law and its regulations. As the COVID-19 situation evolved, the legal and regulatory policies were updated within short period of time to upgrade the organizational structure, operational management, and intersectoral collaboration during the public health emergency. A new law was formulated and adopted: “Law to Prevent, Control, and Reduce Impact of the COVID-19 Pandemic (commonly referred to as the COVID-19 Law).” This law allows more flexibility and authority to the government to mobilize more funds, repurpose staff, and reprioritize the existing resources for better preparedness and control measures. Moreover, it regulates the resource generation for the required medical supplies by limiting their export and supporting their import through reduced layers of procedures.

The internet and information technology application made COVID-19 response and mitigation activities easier, faster, and accurate, and allowed stakeholders to monitor the situation in real time. Mongolia relied on the existing tax system’s value-added tax (VAT) receipt scanning and registration application (QR code scanning) to monitor movement of the population and contact tracing. The government’s decision to promote the digital revolution and launch of the E-Mongolia system further enhanced the efficiency of civil services provision and played a key role in enabling a supportive environment for adherence to the quarantine regimes.

The education sector moved to distance learning through TV lessons and online classes. There has been criticism of distance learning for its lack of efficiency and accessibility, not only in the education sector, but also among other parties involved in the learning process, including international organizations, private entities, and parents. The capacity of educational facilities and teachers was upgraded for distance learning, and it could be developed further as an inseparable part of the teaching and learning modes.

The Ministry of Health has made the necessary adjustments to maintain other essential health services; mobilized human and other resources; ensured participation of the private sector in supply and service delivery processes; and decentralized the testing, contact tracing, and isolation services among the facilities of levels of care. However, the pandemic brought challenges to both health service coverage and financial risk protection. Maternal mortality increased during the pandemic, which was one of the best health outcomes in the country prior to COVID-19.

As in other countries, COVID-19 intensified investment in the health system, and the capacity of the health sector has been strengthened and improved in terms of funding, infrastructure, medical supplies, and benefits and compensation for health personnel. In 2020, the government allocated 29.3 percent of its health sector budget to the COVID-19 response, and this figure reached to 54.1 percent in 2021. The capacity of testing laboratories was enhanced, new laboratories were established in rural provinces, oxygen production units were set-up, essential equipment was supplied to hospitals and ICUs and usage of telemedicine increased.

As COVID-19 infections further spread, in June 2021, the government launched a rigorous campaign to vaccinate the population, a key effort that helped to sustain the relatively low levels of deaths and case severity. The country had provided 92.3 percent of the target population with full doses by June 2022 and subsequently offered booster shots, in line with some of the developed countries. This could not have been achieved without early and timely mobilization of support from development partners such as the World Bank (WB), World Health Organization (WHO) and others.

# 1. INTRODUCTION: SOCIOECONOMIC IMPACTS OF COVID-19 PANDEMIC

## 1.1 COVID-19 Epidemiology in Mongolia

The epidemiology of COVID-19 in Mongolia has progressed somewhat differently compared with many countries in the Asia Pacific region. Whereas some countries already faced unprecedented struggles with COVID-19 in the early months into the pandemic, Mongolia's robust border controls and lockdown measures contributed to its first locally confirmed case being reported only later in the year, in November 2020. Of the total cases, 99.9 percent (205,934 cases) were reported in the first eight months of 2021 (HDC 2021a). From November 2020 onward, the reproduction rate, which measures the average number of new infections caused by a single infected individual, remained greater than one for about six months, coming down to 0.96 by mid-July 2021. It then increased gradually again and reached 1.19 by August 31, 2021, which then led to the third wave.

The test positivity rate, which indicates the level of testing relative to the size of the outbreak, increased to greater than 5 percent by early April 2021 and remained at this level for four months. As of October 31, 2021, the test positivity rate was 24.5 percent. Despite these challenges, the case fatality rate has remained about 0.5 percent since March 2021 (0.48 percent as of October 31). Moreover, by the end of June 2022, the case fatality rate had decreased to about 0.22.

Since March of 2020, when the first imported case of COVID-19 was registered, the total confirmed number of cases reached 953,695 (2796.8 per 10,000 people). Most of the cases occurred between 2021 and 2022; and only 24.17 percent (230,518) of the total cases were registered in the first six months of 2022 (NCCD 2022a).

Thus, based on the trends and patterns of month-by-month infected cases, the country has experienced six main stages (*Figure 2*) of the infection since the onset of this unprecedented pandemic:

**a)** January to early-November 2020 (only imported cases). Until the first part of November 2020, Mongolia had only 361 confirmed cases of COVID-19. In order to prevent transmission of local cases, the State Emergency Commission had taken urgent actions as soon as the World Health Organization (WHO) declared COVID-19 to be a global public health emergency. The measures included immediate border closure and travel restrictions, and tightly controlled quarantine of passengers arriving through charter repatriation flights. Indeed, the country's strategy and actions for preventing COVID-19 infections without local outbreak was exemplified as the best practice (Erkhembayar et al. 2020, Bayasgalan et al. 2021).

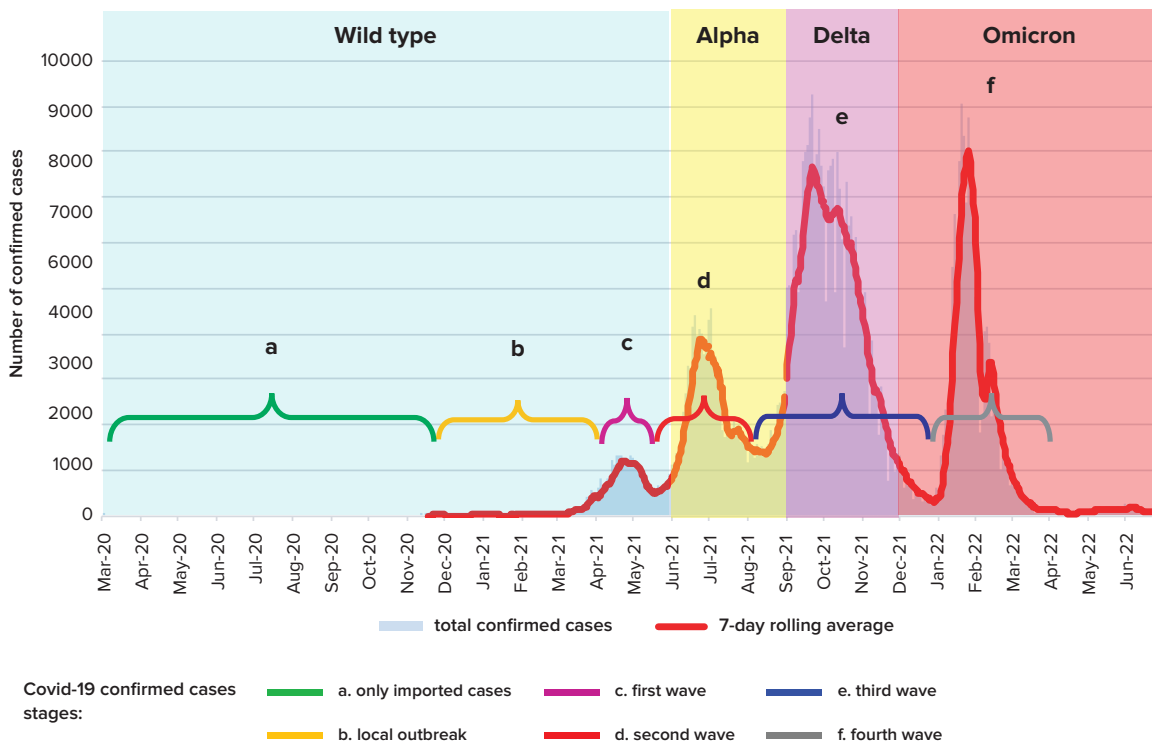
**b)** Mid-November to mid-March 2021 (local outbreak). Unfortunately, the locally transmitted cases of COVID-19 emerged and further increased from mid-November 2020 onward. From November 12 to December 1, 2020, the State Emergency Commission (SEC) upgraded the national emergency level and imposed a strict lockdown throughout the country (Government 2020a, b). By the end of November 2020, five local outbreaks were registered in Ulaanbaatar city and Selenge and Darkhan-uul aimags (provinces). The first case of a COVID-19 death was registered on December 30, 2020. By March 2021, the number of COVID-19 clusters increased to 45 sites, and 34 were still active and located in Ulaanbaatar, Selenge, Darkhan-uul, Arkhangai, Zavkhan, and Tuv aimags (WHO 2021a).

Further, the lockdown measure continued for Ulaanbaatar, Selenge, and Arkhangai aimags from December 1, 2020, until December 14, 2020; and Battsengel soum (subdivision) (Arkhangai) and

Altanbulag soum (Selenge) stayed in localized lockdown state until December 21, 2020. For the other provinces and localities, the emergency alert level was moved to the next lower level of state of emergency (Government 2020c).

Mongolia’s capital, Ulaanbaatar city, remained in an emergency state. Hence, with the purpose of containing the infection in Ulaanbaatar, the second strict lockdown was imposed along with organization of mass testing—now known as “one door-one test” (ODOT)—during the Lunar New Year festival of 2021. However, only 61 cases and 181 close contacts tested positive at the end of the mass testing, (WHO 2021b) which led to the false impression that there was no significant infection among the population. The citizens had been informed that ODOT would be able to detect all the COVID cases among them. Hence, based on the ODOT results, the lockdown was prematurely lifted on February 23, 2021, and Ulaanbaatar was assumed to be without infection, after the testing.<sup>1</sup>

**Figure 2:** Confirmed COVID-19 Cases, Monthly (as of June 30, 2022)



Source: Ministry of Health (MOH), COVID-19 daily situation report, 2022

1. Although no references were available to determine whether there were false negatives, the consensus seems to be that the erroneous low positive results with ODOT were due to the management of the process at the organizational level, inappropriate level of family registration within the system, and other factors



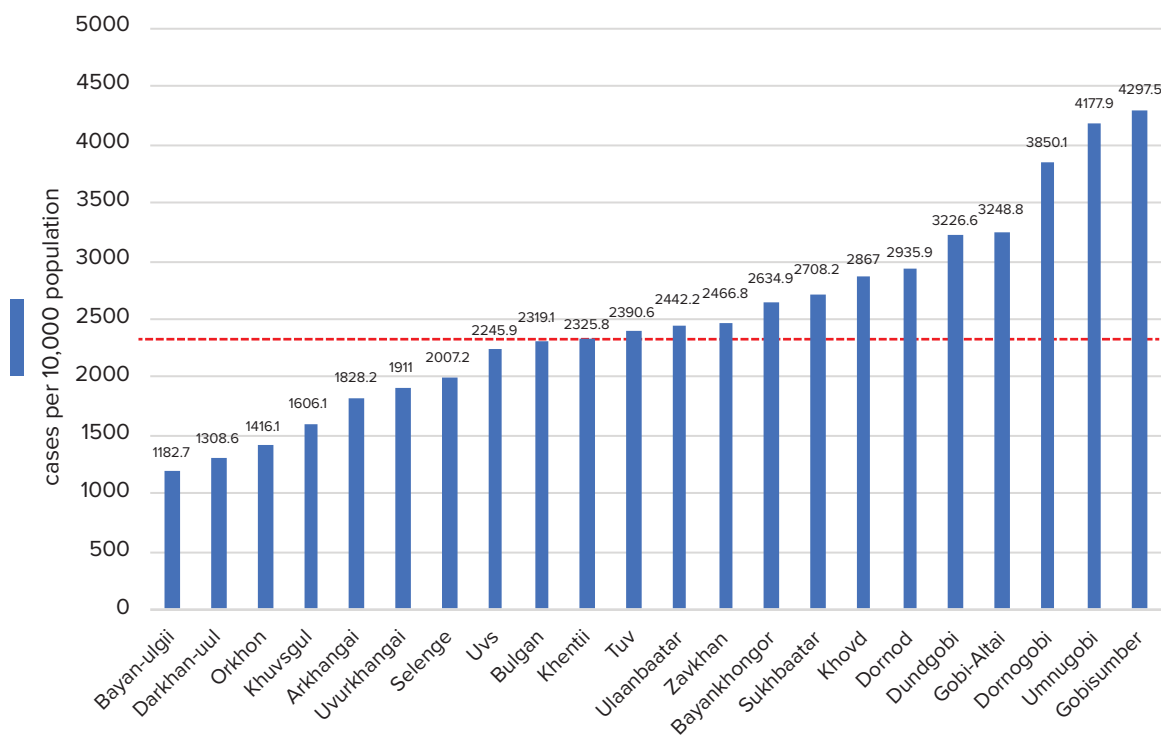
In addition, some of the participants interviewed for this report commented that extended lockdowns and repetitive public health prevention messages might have created COVID-19 fatigue....

c) First wave of COVID-19 pandemic with the peak in mid-April 2021. Mongolia experienced its first major wave of COVID-19 infections between the middle of March and May of 2021. Many have argued that after the mass testing and consequent release of lockdown, the pandemic situation worsened. In addition, some of the participants interviewed for this report commented that extended lockdowns and repetitive public health prevention messages might have created COVID-19 fatigue, which might have

contributed to bursts of population movement and low adherence to usual recommendations, such as maintaining social distancing.

During this period, the National COVID-19 Vaccine Deployment Plan was approved, and Mongolia initiated a national rollout of COVID-19 vaccinations on February 23, 2021. Within a week, a total of 7,550 frontline workers from 17 organizations were vaccinated. (WHO 2021c)

Figure 3: Confirmed COVID-19 Cases per 10,000 Population by Geographical Region, as of June 30, 2022



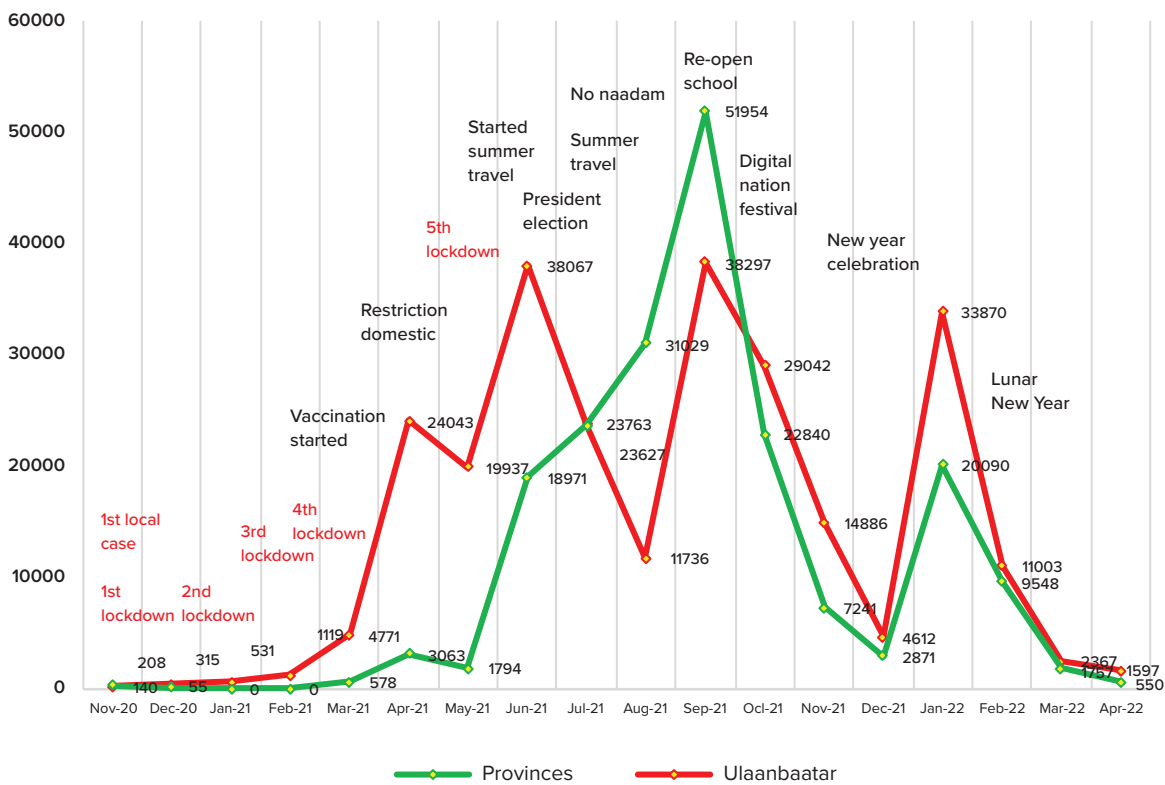
Source: Government news, 2022

**d)** Second wave with the peak in mid-June 2021. Despite a gradual decline in the infection rate by early May 2021, the second wave of COVID-19 transmissions surged in June with the highest daily confirmed cases (more than 2,500 daily cases) reported on June 21, 2021. It is widely believed that the surge is associated with the sudden bursts of population movement caused by certain mass gatherings such as state award ceremonies and the 2021 presidential election campaigns organized in every province and city of Mongolia. By June 2021, the incidence rate in Mongolia (55.24 per million population (Ourworld in data 2021) and 491.4 new

cases per 100,000 (WHO 2021d) was ranked as the highest in the Asia Pacific. Further, by July 11, 2021, all aimags (provinces) and the capital city, Ulaanbaatar (Figure 3), had been converted into COVID-19 orange- and red-zone areas, as defined for indicating degree of transmission and confirmed cases (MOH 2021a).

**e)** Third wave with the peak in September 2021. The third wave started as a result of increased movement of people within the country for summer holiday trips and school openings (Figures 2 and 4). This movement of people from Ulaanbaatar to rural provinces had a great influence on the spread of the infection nationwide.

**Figure 4:** Relation Between Movement of People and Occurrence of New Cases



Source: Government news, 2022

f) Fourth wave of COVID-19 pandemic with the peak in January 2022. The fourth wave was caused by the Omicron variant of the virus. The celebration of the New Year’s holiday and the cold winter season significantly affected occurrence of the wave.

The number of infections and deaths was the highest during the second wave.

**Table 1:** Cases of Infection and Deaths as of June 2022

Years	Cases	Deaths
2020	1,215	1
2021	721,962	2,038
2022 June	230,518	79
Total	953,695	2,118

Source: 10th National Flu Conference, 2022

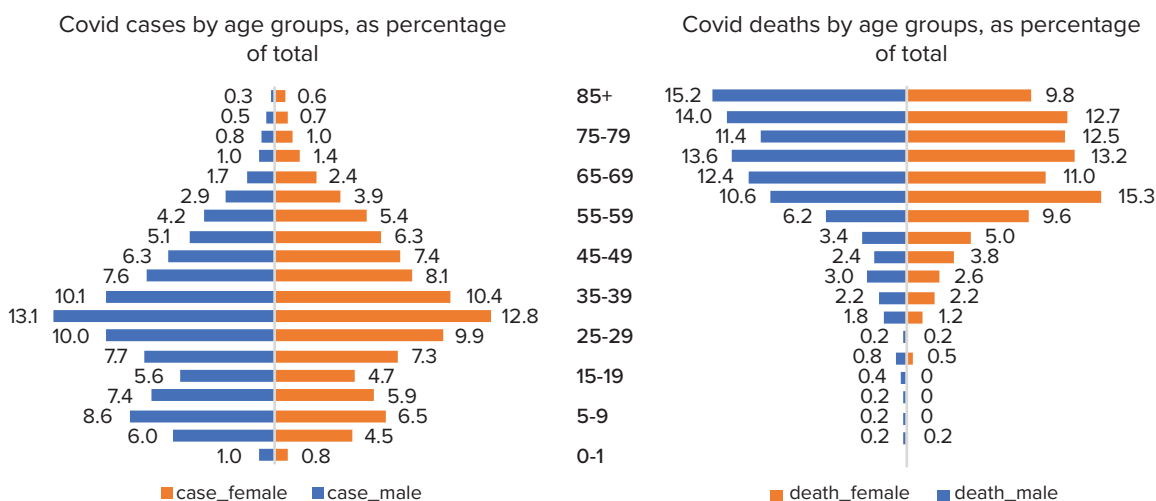
Since the first COVID-19 death was reported on December 30, 2020, the total number of case fatalities was 2,118 (Table 1). The maximum fatality was reported during the second wave—reaching 1,988 by October 31, 2021 (Figure 5) (MOH 2021b). The NCCD reported that although the number of deaths increased during the second wave, the death rate remains four times lower than the world average and stood at 0.5 percent of the laboratory-confirmed cases.

Experts attributed this rate to the rigorous COVID-19 vaccination campaign that was initiated by the government on February 23, 2021, when local infections were still under control. In terms of age and gender profile, 58.3 percent of the deceased were females and 41.7 percent were males. Almost half (49.2 percent) were above 65 years of age, and among them females (225) tended to have a higher death rate than males (208) (NSO 2021a). Moreover, Figure 5 shows the infection case epidemiology, with infection incidence higher (more than 10 percent) in the working-age population between 25 and 39 years of age, and the case fatality higher among those 55 years old and above.

An epidemiological study showed that since January 14, 2022, with the changing COVID-19 strain, the incubation period decreased to an average of 2.39 days with Omicron, compared with 5 to 6 days at the beginning of the pandemic. Moreover, the risk of admission was 57 percent higher (RR = 1.57) among the unvaccinated and those with incomplete vaccination status, compared with those who were fully vaccinated and/or had had booster shots (NCCD 2022b).

The distribution of infections among children shows a rather even pattern: 30.3 percent for those 0 to 4 years old, 30.5 percent for children ages 5 to 11, and 32.3 percent for those ages 12 to 15), whereas this figure was only 7 percent for those ages 16 to 17.

**Figure 5:** COVID-19 Confirmed Cases and Deaths by Gender and Age Groups, as of October 31, 2021

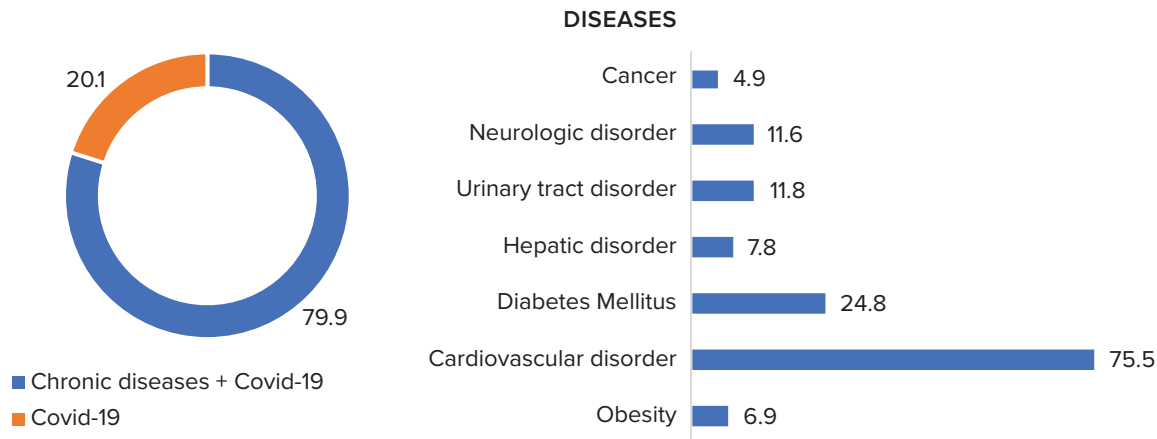


Source: Hhealth Development Center, Monthly Health Statistics, October 31, 2021

As of May 27, 2022, a total of 15,884 health care workers were infected (1.7 percent percent). Many of those health care workers have been infected twice (14.4 percent) and some (0.4 percent) a third time.

Nearly 80 percent of all deaths have been of individuals with comorbidities. Cardiovascular disease, diabetes, and kidney diseases were the main comorbidity risk factors in individuals who died from COVID-19 in Mongolia (Figure 6).

**Figure 6:** Main Comorbidities in Individuals Who Died of COVID-19, as of June 30, 2022



Source: 21st week report, NCCD, June 2022.

**Key findings**

- Mongolia managed to keep COVID-19 at bay until late 2020 and curbed local transmissions with low case fatalities, largely owing to swift measures (a national preparedness system, travel restrictions, compulsory quarantine of travelers) at the onset of pandemic, followed by vaccination.

- By June 2021, the infection was reported across the country, with the capital city Ulaanbaatar as the main epicenter.
- Demographic indicators of the infection and death rates were similar to the global trend, with a high infection rate among middle-aged people, and a higher death rate among older people.

## 1.2 Socioeconomic Situation

In the three years prior to the COVID-19 pandemic, the Mongolian economy grew at about 6.3 percent on average, per annum. Due to COVID-19, the economy contracted to -4.6 percent in 2020; however, the growth resumed, at 1.64 percent in 2021 and 1.9 percent by the first half of 2022 (NSO 2022).

A sharp decline in the global demand for key commodities and border closures with China were among the key external factors that crippled the mining-led economy. Further, the government

budget revenues declined sharply in 2020, while the expenditure continued to rise (*Table 2*). Although government assistance to the population in the form of tax breaks, exemptions, and income support has helped mitigate the impact of the COVID-19 pandemic on households and businesses, the government budget revenue declined in 2020 by 15 percent compared to the previous year. On the other hand, government expenditure rose by 19 percent in 2020. The budget deficit increased, and 60 percent of it was financed by foreign loans.

**Table 2:** General Government Budget Execution 2018–2021 (Million MNT)

Government key statistics	2018	2019	2020	2021
<b>1. Total revenue and grants</b>	<b>10,172,760</b>	<b>12,040,327</b>	<b>10,444,167</b>	<b>14,306,357</b>
1.1. Budget stabilization fund	206,987	94,597	66,243	627,922
1.2. Future Heritage Fund	620,694	1,040,220	914,086	967,000
<b>1.3. Total revenue</b>	<b>9,345,080</b>	<b>10,905,511</b>	<b>9,463,838</b>	<b>12,711,435</b>
1.3.1. Tax revenue	8,227,776	9,813,196	8,511,605	10,625,916
1.3.2. Nontax revenue	1,117,304	1,092,315	952,233	1,430,524
<b>2. Total expenditure and net lending</b>	<b>9,317,221</b>	<b>11,661,701</b>	<b>13,904,273</b>	<b>15,748,277</b>
2.1. Current expenditures	7,350,339	8,228,579	10,828,926	12,983,670
2.2. Capital expenditures	1,680,430	3,016,672	3,034,236	3,363,516
2.3. Net lending	286,452	416,450	41,111	(598,909)
<b>3. General government budget balance</b>	<b>27,859</b>	<b>(756,190)</b>	<b>(4,440,435)</b>	<b>(3,691,837)</b>
3.1. Sources of deficit financing	(27,859)	756,190	4,440,435	3,691,837
3.1.1. Cash balance	911,447	(1,103,377)	1,868,413	123,037
3.1.2. Government bond	(2,434,729)	(165,106)	(249,393)	2,258,613
3.1.3. Government loan	1,386,072	1,651,626	2,661,422	697,388
3.1.4. Others	109,350	373,047	159,993	612,800

Source: General government budget execution 2018–2021, Ministry of Finance Mongolia, September 2022

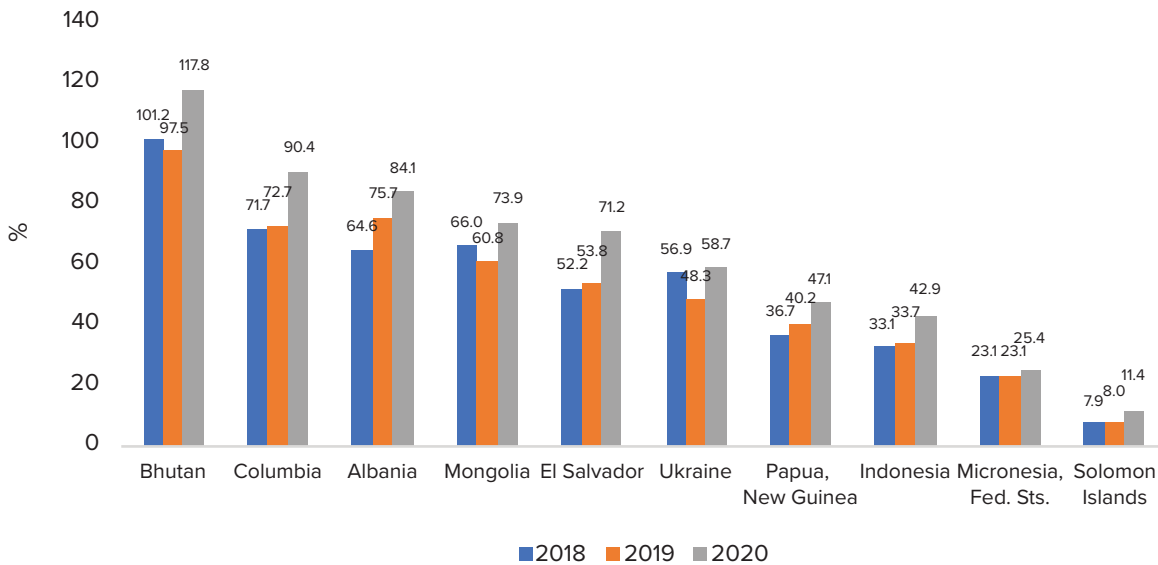
## Mongolia’s economy has been recovering from 2021 onward, due to favorable foreign trade conditions and increased demand for exports.

Thus, the government debt as a share of GDP rose again in 2020, to 73.9 percent of GDP, resulting in a reversal of the declining trend in debt-to-GDP ratio of recent years. In accordance with requirements of the Fiscal Stability Law and the government’s debt management strategy, policy measures were taken to reduce the debt since 2018, but due to COVID-19, the budget deficit further increased, and the government debt as a share of GDP rose again. This phenomenon appears to be comparable to the situation in similar

economies or in other lower-middle-income countries (Figure 7) (Trading economics 2021).

Mongolia’s economy has been recovering from 2021 onward, due to favorable foreign trade conditions and increased demand for exports. In addition, several other measures supported this recovery, including the economic recovery program initiated by the government in March 2021, full vaccination of the adult population by June 2021, and the gradual lifting of COVID-19 restrictions.

**Figure 7:** Government Debt-to-GDP Ratio 2018–2020, Lower Middle-Income Countries



Source: Government debt ratio 2018–2020. World Bank, <https://data.worldbank.org/indicator/GC.DOD.TOTL.GD.ZS?end=2020&start=2018>

**Table 3:** External Assistance to Mongolia's COVID-19 Response, by Sectors, January 2020 to September 2022

Purpose	Activity type	Organization/country	Total contributions (million USD)		
Fiscal support	Project	Japan	242.30		
		ADB (Asian Development Bank)	200.00		
		AIIB (Asian Infrastructure Investment Bank)	100.00		
		IMF (International Monetary Fund)	99.50		
		EU (European Union)	25.00		
Health sector	Direct subsidy and support*	WHO	8.04		
		Citizen and company donation	5.29		
		UNICEF (United Nations Children's Fund)	3.96		
		Hungary	3.92		
		China	3.59		
		Global fund	1.92		
		USAID (United States Agency for International Development)	1.62		
		Switzerland	1.44		
		Republic of Korea	1.20		
		SDC (Swiss Agency for Development and Cooperation)	0.63		
		JICA (Japan International Cooperation Agency)	0.41		
		Germany	0.15		
		KOICA (Korea International Cooperation Agency)	0.12		
		UAE (United Arab Emirates)	0.09		
		France	0.06		
		International NGOs (nongovernmental organizations)	0.03		
		Russian Federation	0.01		
		Social sector	Project	World Bank	81.56
				ADB	37.90
				Japan	22.10
AIIB	10.50				
ADB	74.63				
		World Bank	10.06		

Source: Ministry of Finance Mongolia, September 2022. \*Data on direct support for health sector was obtained from the Ministry of Health in October 2022.

In response to the COVID-19 pandemic, the government mobilized additional resources from various funding sources including its own budgetary revenue. In addition to the general government budget, other resources, including additional funding from development partners, bilateral governments, private citizens, and business organizations, has contributed to the COVID-19 response. According to estimates from the Ministry of Finance, the Mongolian government received a total of US\$936 million of additional support from January 2020 to September 2022. Of the total, 71 percent was spent on direct budget support, 20 percent on the health sector, and 9 percent on other sectors (*Table 3*).

**Table 4:** General Government Health Expenditure, 2017–2021

	2017	2018	2019	2020	2021
General government health expenditure as percentage of GDP	2.8	3.0	2.8	3.6	4.7
General government health expenditure as percentage of general government expenditure	8.8	10.5	9.1	9.8	12.8

Source: Government budget execution data 2017–2021, Ministry of Finance of Mongolia, September 2022

During the pandemic, the government continued to spend more for health. In 2019, the general government health expenditure (GGHE) was 2.8 percent of GDP, whereas it increased to 3.6 percent in 2020, and further to 4.7 percent of GDP in 2021. The share of the GGHE in general government expenditure was 9.1 percent in 2019 and increased to 12.8 percent in 2021 (*Table 4*). The Ministry of Health reported that in 2021, the budget spent by the government in the health sector has been at the highest level in the last 20 years.

#### Key findings

- The COVID-19 pandemic hit Mongolia's economy hard, resulting in an economic-crisis growth level similar to that of the early 90s. However, the economy started to show growth indicators in 2021 and 2022.
- In response to the COVID-19 epidemic, the Mongolian government mobilized domestic and foreign credit sources and donations, and allocations were made to support the health sector and other interventions such as social assistance to households and support to businesses.
- However, the ratio of government debt to GDP rose by 13 percent in 2020.



# 2. METHODOLOGY AND DATA SOURCE

Both the quantitative and qualitative approaches were used, such as desk review, in-depth interviews, focus group discussions (FGDs), pulse surveys, and questionnaire surveys (*Annex 1*).

The desk review constituted the main source of references for this report. The following documents were reviewed:

1. Policy papers including laws, resolutions, orders, regulations, guidelines, and standard operating procedures relevant to the COVID-19 infection. These papers were approved and issued by various levels of decision-makers—the Parliament/State Great Khural, the Government Cabinet, the State Emergency Committee (SEC), the MOH, and others.
2. Academic publications (international and national);
3. Unpublished reports, such as presentations made by the MOH.
4. Others (social media review)—the public response to government actions and other organizations was analyzed from the contents of social networks, especially Facebook posts and posters.

Key informant interviews were conducted among decision-makers, different service providers, field epidemiologists, care receivers, and clients to

clarify the issues of health system preparedness, government and health system response, and vaccination and innovative actions implemented during the COVID-19 pandemic. Focus group discussions with health service providers included questions to examine the issues of the health system and public responses to COVID-19 actions. Interviews with 15 different representatives of stakeholders and FGDs with doctors, nurses, field epidemiologists, and private health care providers were conducted as part of this case study.

The qualitative survey among high-level managers of health care facilities was conducted using the WHO-developed pulse survey questionnaire to explore the health care service delivery situation and actions taken. The survey results are provided in a descriptive manner.

In addition, an online survey was conducted among the patient groups to explore the public's response and the reality of health care service delivery challenges it faced, and its views on COVID-19 mitigation actions taken. Three hundred questionnaires were collected, and data was analyzed using the SPSS (Statistical Package for the Social Sciences) software. The survey results are presented and discussed in respective sections of this report.

*COVID-19 immunisation for nomadman in a work field*



# 3. PREPAREDNESS

## 3.1 Policy and Governance for Disease Surveillance and Preparedness

### 3.1.1 Organizational Structure

#### 3.1.1.1 Before the COVID-19 Pandemic

The Law on Disaster Protection (2003) and the Law on Health (2011) describe the structure, roles, and responsibilities of relevant organizations at the national and local levels, along with required resources and funding. This enables a legal and policy environment to regulate necessary actions in case of a disaster or occurrence of infectious disease. The main management and oversight body is the State Emergency Commission (SEC), which was established by a government resolution approved in 2008 (No.11) and updated in 2017 (No.152). The SEC is accountable for the nationwide management of disaster preparedness and coordination of the response during any disaster.

At the operational level, as a WHO member country, Mongolia has been implementing International Health Regulations (IHR) (2005) through development of core capacities to manage acute public health events and emergencies. The National Center for Communicable Disease (NCCD) has been appointed as the focal point for IHR as per Order No. 151, Minister of Health (2010). Asia Pacific Strategy for Emerging Diseases (APSED) also supports advancing implementation and maintenance of IHR (2005) core capacities. Mongolia was involved in the voluntary assessment of the Joint External Evaluation (JEE) in 2017.

Mongolia was assessed as having made good progress in several areas, including an improved national surveillance and monitoring system, sustained field epidemiology training, regularly tested multisectorial public health emergency plans, and a demonstrated culture of learning and continuous improvement through regular revision of the plans and conducting exercises. In addition, the new Emergency Operation Center (EOC) for coordinating public health emergencies had been established to ensure timely and efficient management of public health emergencies. The maintenance of essential drugs and other medical supplies and the lack of public health human resources and funding for the core capacities were identified as challenges for the country. The JEE recommended finalization, operationalization, and monitoring of the Regulation on Information Exchange between Sectors and Rapid Response during Potential Disasters and Public Health Emergencies.

Following the assessment, the deputy prime minister and chair of the SEC issued an order (No. 8, dated November 2, 2017) to improve information exchange among concerned sectors, rapid response actions, and regular risk assessment during potential disasters and public health emergencies. It defined the organizational structure in terms of leading,



collaborating, and supporting organizations for different types of emergency situations. For instance, in case of a pandemic of human infectious disease, the NCCD leads the information exchange among sectors; ensures coordination of rapid response; leads the Incident Management System (IMS); and conducts risk assessment, partnering with the Government Agency for Specialized Inspection (GASI), National Center for Zoonotic Diseases (NCZD), National Emergency Management Agency (NEMA), and the local councils (LCO) in provinces. To ensure the effective implementation of the deputy prime minister's order within the health sector, the MOH approved order No. A/508, 2017, to regulate information exchange, the IMS, and the EOC.

Respondents in interviews conducted for this case study confirmed that the country has sufficient preparedness and had built up a good experience dealing with a public health emergency. Interviewees stated that the public health emergency rapid response system had been established and strengthened with support from the World Health Organization (WHO), which had been making great contributions to the response actions. Also, the national surveillance system for infectious disease, intersectoral collaboration, National Plan for Emerging Infectious Diseases and Public Health Emergencies, and the experience of dealing with the previous outbreaks of infectious diseases were mentioned by the interview respondents as factors creating an environment supportive to system preparedness.

“...In 2007–2008, cooperation in health, veterinary medicine and zoonoses was intensified in the field of early warning system and evidence-based surveillance system, which was led by the NCCD. Since the outbreak of H1N1 in 2009, capacity building activities had been conducted and the Asia-Pacific New and Emerging Infection Disease Control Plan has been approved for three to five years in eight areas. In this context, the National Communicable Diseases Program was approved in 2010. Health committee is established at the national level at the Ministry of Health and at the local level at the aimag health department...” (Technical officer, international agency)

However, before COVID-19, Mongolia had not faced a large-scale epidemic or any other public health emergency that really tested its level of preparedness in real-life situations—except for the 2015 measles outbreak, which was potentially caused by accumulated susceptible clusters, despite the high overall vaccination coverage (Orsoo et al. 2019).

### 3.1.1.2 With COVID-19 Pandemic

Hence, when the COVID-19 pandemic hit the world in January 2020, Mongolia had to revisit its policy and regulatory frameworks to comply with IHRs. Consequently, the Disaster Protection Law was amended in May 2020 to define additional roles and responsibilities of the SEC and the government and include more regulations to coordinate intersectoral response, mitigation, and risk communication actions.

The National Security Council (NSC), the government, and the SEC are the top decision-making bodies during emergency situations. The NSC's role is to promptly discuss disasters and emergency situations and provide the parliament and the government with guidance and recommendations. The government approves and implements policies, projects, programs, rules, regulations, directions, and plans for disasters and epidemics, and it can declare a state of emergency along with the set of measures corresponding to the declared level; and it provides regular, prompt, accessible, and detailed information to the public through the mass media and additional provisions. The Interim Parliamentary Committee on COVID-19 Law Enforcement was established in May 2020 by Resolution No. 49 of the State Great Hural, and it is entitled to monitor implementation of the law during the pandemic.

The current SEC, established by Government Resolution No. 02 of 2020, consists of 31 members, chaired by the deputy prime minister. There are 22 sub commissions in 21 aimags and the capital city, with the same roles and responsibilities in their local areas. Current organizational structure for decision-making and implementation is shown in *Annex 2*.

In connection with the pandemic, the Operational Emergency Headquarters of the SEC was transformed into the Health Service Emergency Headquarters, chaired by the Minister for health, in November 2020. The Minister established five operational teams—public health planning and information, response, supply, finance, and administrative—with participation of MOH and NEMA, and defined the responsibilities of each team (Deputy prime minister order, 2020).

The structure and composition of the Operational Emergency Headquarters team was changed four times (March 12, 2020; November 11, 2020; March 3, 2021; and October 5, 2022) in line with the evolving pandemic and based on lessons learned. In total, 186,000 public servants from 44 different organizations were engaged in the management and implementation of the COVID-19 response. The main operational guidance was prescribed by the “Plan of

actions to combat COVID-19,” approved jointly by the vice prime minister and health minister. This plan has been updated thrice (March 18, 2020; November 4, 2020; and January 17, 2022) based on the progress and waves of the infection.

There are reports and acknowledgments about shortcomings in the coordination and intersectoral activities between the SEC and the Ulaanbaatar City Emergency Commission. Poor coherence and inconsistency of the decisions made by those two commissions caused confusion at the implementation level. For instance, in December 2020, a sick woman died while waiting for approval to get through the Ulaanbaatar city border from a province. Poor information exchange, uncoordinated decisions, and lack of guidance at the operational level are believed to be the cause of this event (Live TV 2020).

The NCCD continues to be the lead organization for the COVID-19 incidence management system (IMS), which reports to the Health Service Emergency Headquarters (NCCD 2021). Moreover, the NCCD leads the IMS surveillance team under the Health Service Emergency Headquarters (Health Minister Order 2021a). This team is composed of 32 staff members from 11 different organizations, is chaired by the director of the NCCD, and works with five teams formed by the Headquarters (NEMA 2020) (*Annex 2*).

The interview participants (health experts) commented that at the early stage of the pandemic, when few imported cases were reported, the NCCD functioned well in carrying out its main roles, which were implementation of quarantine measures, isolation, and clinical management of COVID-19. However, when nationwide transmission occurred, the NCCD struggled to demonstrate effective professional leadership and manage the situation. Many health experts mentioned that the current structure of the NCCD, where surveillance and control and hospital services functions mixed in one organization, restricts the ability of its top managers to focus on either function.

“...Until December 2020, the positive cases registered in the local area were transported to UB [Ulaanbaatar], which was too much concentration to one location, and it was very costly. It was making a false hope among the people that the infection will not be spreading to the local area...” (Officer, international NGO)

### Key findings

- Mongolia had established a required legal environment with regard to organizational structure, roles, and functions of different stakeholders for responding to different types of potential disasters and public health emergencies, even before the start of the pandemic.
- The country had maintained a satisfactory level of preparedness according to IHR (International Health Regulations) at the national and international levels. However, Mongolia had little experience with real-life situations.
- With the COVID-19 pandemic, the legal environment was amended within a short period to upgrade the organizational structure, operational management, and intersectoral collaboration during this unprecedented public health emergency.
- Largely, the current organizational structure for COVID-19 response has been workable; however, there were challenges:
  - Poor coordination and inconsistency of decisions made by national and local level bodies such as the State Emergency Commission (SEC) and Ulaanbaatar city emergency commission.
  - An overly centralized decision-making structure diminished the roles and leadership of the MOH in the case of public health emergency response and hampered cross-sectoral collaboration at mid-level management.
  - High reliance and concentration of COVID-19 response activities at a single institution (NCCD) for routine tasks such as isolation and clinical management proved to be costly for the health system and might have led to poor preparedness and readiness of other health care facilities when the pandemic hit nationwide.

### 3.1.2 Legal Framework

The following legal frameworks served as the basis for the Mongolian government’s implementation of a High Level of Disaster Preparedness throughout the country during the initial months of the pandemic.

**Table 5:** Legal Frameworks Before COVID-19

	Legal Frameworks	Purpose
1	Law on Disaster Protection, revised on February 2, 2017	Prompt and effective organization of disaster protection activities, coordination of tasks related to the emergency organization and disaster management system, and its activities
2	Order 08 of the Deputy Prime Minister, dated November 2, 2017	Establishment of intersectoral information exchange in the event of a potential disaster or public health emergency, prompt response, implementation of a case management system, and a system for early detection and early assessment in the event of a disaster
3	Order A/508 of the Minister of Health, dated December 13, 2017	Establishment of procedures for public health emergency preparedness and response management, sectoral and cross-sectoral coordination, and case management systems
4	National Communicable Disease Control Program, Government Resolution No. 11 of 2017	Reduction of the spread of contagious diseases by increasing the participation of other sectors in strengthening the capacity for flexible, high-quality, inclusive, and rapid response to communicable diseases, and by ensuring financial sustainability of program implementation
5	Government Resolution No. 416 of 2015	Creation of mandates for individuals, organizations, enterprises, soums, districts, provinces, and cities to annually revise their disaster protection plans, including making provisions for resource allocation and stockpiling of emergency supplies for natural disasters and human health emergencies

Subsequently, the parliament approved the Law to Prevent, Control, and Reduce Impact of the COVID-19 Pandemic (hereinafter referred to as the COVID-19 Law) on April 29, 2020. This law is a temporary legal framework aimed at preventing and combating the pandemic, protecting public health, imposing certain restrictions on human rights, making prompt decisions, and reducing the negative impact on society and the economy; and it authorizes the government to regulate issues related to funding and

other special procedures. It can be regarded as a “working” legal document to be adjusted frequently as the situation progresses. The document also enforces public health and social measures and makes roles and responsibilities of different players, such as the government, ministries, local authorities, banks, and other service providers, obligatory by law. As of June 2022, the COVID-19 Law has been amended eight times, and the enforcement timeline was extended four times until December 2022.

**Table 6:** Key Legislative Frameworks in Response to COVID-19 Pandemic Control Legislation, From January 2020 to June 2022

Legal Frameworks	Number of regulated issues and decisions
Disaster Protection	The powers of the parliament, the government, and the State Emergency Commission have been amended to include measures to be taken in the event of a high level of disaster preparedness and public preparedness, and a new definition of full and partial disaster and public health emergency readiness.
Resolutions of the Parliament	<p>Resolution No. 32 of the Parliament on measures to ensure financial and economic stability, risk prevention, and e-transition for public services during COVID-19 pandemic.</p> <p>Resolution No. 32 of the Parliament on COVID-19 guiding the prevention and control of the pandemic and reducing its negative social and economic impact.</p> <p>Resolution No. 21 of the Parliament on a package of measures to protect the health and income of citizens, save jobs, and stimulate the economy during the COVID-19 pandemic.</p>
Resolutions of the Government	As of June 2022, 51 government resolutions were issued on the regulation of COVID 19.
Orders of the State Emergency Commission	As of June 2022, 19 resolutions, 121 orders, 11 official instructions, and 71 meeting notes have been issued.
Orders of the Ministry of Health	<p>From January 2020 to June 2022, these orders have been updated five times in the field of Infection Surveillance and Prevention.</p> <p>Updated 13 times in the field of health care and treatment.</p> <p>Updated six times in the field of home isolations.</p> <p>Updated about 45 times in the field of supply.</p>

The Health Law stipulates that the state is responsible for paying for infectious disease care (Health Law 2011), and consequently, the government made prompt legal decisions to mobilize state budget and health insurance resources to finance additional unplanned expenditures in this area. In conjunction with other laws, the COVID-19 Law provides the environment for making budget adjustments between capital and recurrent expenditures within the total expenditures required during the COVID-19 pandemic. In addition, changes have been made to the public financial management system to allow the budget to be approved quickly and to allocate expenditures more flexibly and without bureaucracy. Funding provisions in the laws since the pandemic began have made it possible to ensure the sustainability of financing and fiscal flexibility.

Therefore, the government and the SEC have been able to mobilize sectoral and cross-sectoral resources in the areas of human health, food supply, transportation, education, and socioeconomics. The SEC is also responsible for managing the inflows and outflows of financial resources, such as budgets and donations, in an emergency. For example, the school lunch program budget was reprioritized to provide food, sanitation, and health products for university students living in dormitories (Government 2020b).

“Documents such as COVID-19 Law, SEC and City Emergency Commission (CEC) Orders came out very well...” (Deputy director, Health Department, Ulaanbaatar)



*Khurmen Soum  
Health Center  
Ambulance car,  
Umnugobi province*

The Law on Information Transparency and Information Right (2011) provides a statement that all information should be open except as provided by law. The provision of information is based on the principle of promptness. The Law on Disaster Protection provides for the principles of humanism, promptness, transparency, and accountability in disaster protection activities. The law mandates the government to announce disasters, emergency situations, and response measures; to provide regular, prompt, accessible and detailed information to the public through the media; and to provide accurate information on disaster protection measures, for citizens' rights to information.

However, despite the prompt implementation of the legal framework for COVID-19 by the Mongolian government, some studies and experts point out its challenges. For example, according to a systematic analysis conducted by the MOH and WHO, the amendments to the Disaster Law were not suitable for a pandemic such as COVID-19 and did not clearly specify actions to prevent, stop, and reduce its negative social, economic, and public health consequences. In addition, the "Strategic Plan for Coronavirus Pandemic Control and Response" approved by the Deputy Prime Minister's Order No. 26 of 2020 did not define risk management criteria by the prevalence of infection. Furthermore, the legal framework did not provide a unified management for enforcement and does not regulate the funding sources of the activities against disaster (Chimedsuren Ochir et al. 2021).

#### Key findings

- Mongolia established a comprehensive legal framework to prepare and respond to health emergencies and disasters. Previous disaster legislation, experience in combating marmot-related zoonotic infections, and the regional experience with SARS and H1N1 influenza provided a basis for action in the early stages of the pandemic.
- With COVID-19, an effective legal action was the adoption of the new Law to Prevent, Control, and Reduce Impact of the COVID-19 Pandemic. This law allows for continuous and flexible funding for communicable disease preparedness and control measures.
- As the COVID-19 situation evolved, the legal and regulatory policies have been updated.
- However, experts and policy makers acknowledge legal and regulatory challenges, including poor coordination and unclear role delineation across key players.





In addition to the disaster preparedness level, the Disaster Protection Law classifies the prevalence of the pandemic situation among the population, based on infection prevalence, surveillance, isolation, contact tracing, case management, and response, into four levels: green, yellow, orange, and red zones (Health Minister order, 2021b).

Universal preparedness (UP) level has been announced three times. Mongolia has been in the HAP level for 24 months, from February 2020 to February 2022.<sup>2</sup> On February 14, 2022, Government Resolution No. 66 was issued to lift the HAP level nationwide except at the border points. The border points continued to operate under HAP to ensure safety of export and import of goods and materials. Following the HAP abolition, Resolution No. 67 was

issued (February 16, 2022) and all border-related restrictive decisions (N39 of January 31, 2022, and N386 of December 22, 2021) were canceled.

According to the Law on Health, the MOH is responsible for organizing, coordinating, and implementing surveillance, quarantine, and other mitigation measures, and treating patients during an epidemic. In addition, it is responsible for enabling health system readiness, resource management, management system flexibility, and international cooperation (*Table 9*). The national program for communicable disease covers a full range of activities for capacity building, prevention, surveillance, international cooperation, mitigation, and the involvement of other sectors in the preparedness for new and emerging infections and influenza (Government 2017).

**Table 9:** Orders and Decisions Issued in the Field of Surveillance and Prevention by the Minister of Health During the COVID-19 Pandemic

	Orders and decisions	Objectives
1	HM Assignment No. 19, dated January 22, 2020	This decision instructed the relevant authorities to prevent and prepare for the potential risk of a new coronavirus infection, and to put the operational management unit into active mode.
2	HM Order No. A/269, dated April 29, 2020	Temporary guidelines for surveillance of COVID-19 were adopted.
3	HM Order No. A/29, dated January 27, 2021	The temporary instructions on surveillance and prevention were updated, and the rights and responsibilities of the surveillance organization approved.
4	HM Order No. A/227, dated April 20, 2021	Temporary instructions on surveillance and the rights and responsibilities of the relevant authorities were approved.
5	HM Order No. A/329, dated May 20, 2020	Hospital-based surveillance procedures and mappings were approved.
6	HM Order No. A/456, dated July 8, 2021	Temporary instructions for surveillance; response; hospital-based surveillance; and surveillance at nursing homes, army camps, prisons, mining camps, and other enclosed areas were issued.
7	HM Order No. A/282, dated May 18, 2022	Guidelines for surveillance, response, and health service provision for foreigners arriving in Mongolia were adopted.
8	HM Order A/373, dated July 2022	To improve the capacity of the national flu surveillance system and integrate it with COVID-19 surveillance activities.

2. Border restrictions with China started on January 31, 2020, through Government Resolution No. 39, and a quarantine on travelers was put in place. Air and rail travel to and from Korea was stopped on February 25; to and from the Russian Federation, Republic of Kazakhstan, and Republic of Turkey on March 10; and to and from Japan and Germany on March 17, 2020. As a result, international passenger traffic was completely halted, and special duty charter flights were used to carry citizens from other countries and were monitored under quarantine.

The MOH has been actively cooperating with the WHO to continuously exchange surveillance, diagnostic, and treatment information on COVID-19. The NCCD’s operational management unit compiles data on suspected and confirmed cases and contact information at the national level and reports to the MOH within 24 hours, and to the WHO Regional Office once a week. The NCCD provides the situation updates electronically to the State Emergency Commission, the National Emergency Management Agency, and the General Police Office (Health Minister Order 2021c).

There is a need to review the current surveillance system of infectious diseases in line with the COVID-19 pandemic. The current system has several strengths, including a nationwide and sustainable system for suspected case and symptomatic surveillance for the leading infectious diseases. Acute respiratory infection information and evidence are especially well prepared for further assessment of spread and response actions. However, there is a need to strengthen information accuracy, its timely transmission, collection of individual case information, collection of clinical and risk-related details, and the conducting of active surveillance activities. Therefore, the minister of health issued an order (Order No. A/373 of July 2022) to integrate COVID-19 and flu

surveillance activities, improve the capacity of the surveillance system, and ensure sustainability.

### 3.2 Health System

#### 3.2.1 Health Financing

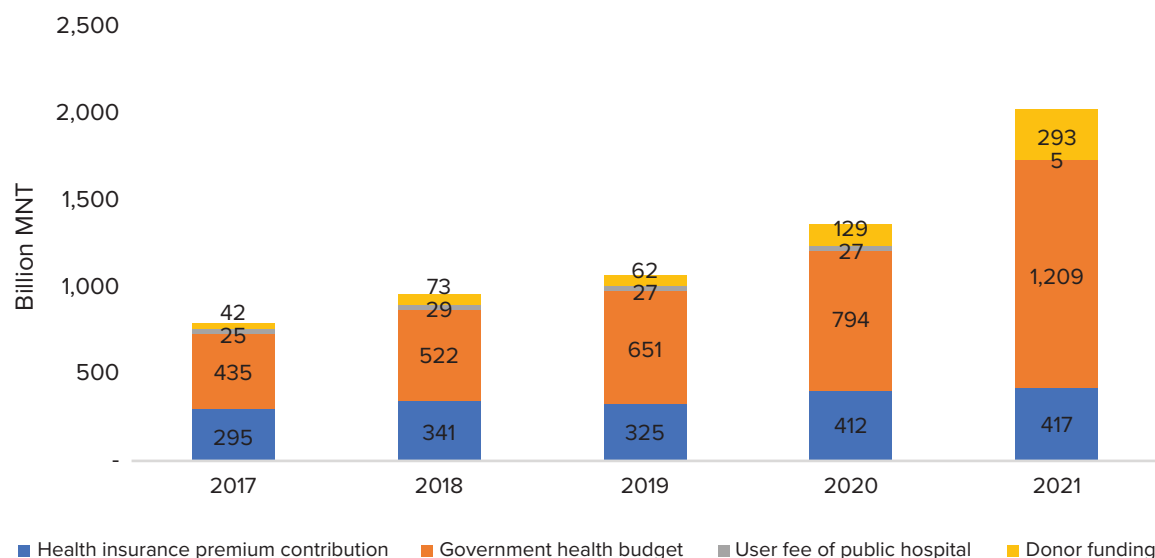
In 2020, the Law on Health and Health Insurance was amended and there were major changes to the health care financing system to improve access to both COVID-19 and other health services, and to protect the population from undue financial burden, while incentivizing health care providers.

#### Resource mobilization

According to the National Health Account estimates of the WHO, in 2019 the sources for health care in Mongolia were the government budget (41.2 percent), the social health insurance scheme (24 percent), and out-of-pocket health payments (OOP) (34.8 percent).

The general government expenditure for health increased by 0.7 percent from 2019 to 2020, and by 1.9 percent from 2019 to 2021. For the last five years, the growth of general government health expenditure has been driven largely by the government budget allocation to health sector (*Figure 8*).

**Figure 8:** General Government Health Expenditure by Source of Financing, 2017–2021



Source: Ministry of Finance Mongolia, September 2022

In 2020, the government allocated 29.3 percent of its health sector budget to the COVID-19 response, and this figure reached to 54.1 percent in 2021 (*Table 10*).

**Table 10:** General Government Budget Allocation for Health in Response to COVID-19 Pandemic, by Financing Source

Source	2020 (billion MNT)	2021 amended budget (billion MNT)
Government/state budget	103.4	249.0
Government reserve fund	12.2	92.0
Health insurance fund	-	535.0
Development partner contributions	283.3	207.2
<b>Total</b>	<b>398.9</b>	<b>1,083.2</b>
<b>As share of government health expenditure</b>	<b>29.3%</b>	<b>54.1%</b>

Source: Ministry of Finance Mongolia, September 2022. Data on direct support to health is from the Ministry of Health, 2022.

### Pooling

In 2015, the revised Health Insurance Law enabled pooling of two separate public funding sources in the health sector. Starting in 2021, the funding for health

services paid by the government budget has been transferred to the health insurance (social) fund; and this accounted for 61 percent of the recurring health budget in 2021. Funding for public health measures, surveillance research, and health care services during outbreaks of infectious diseases remains part of the government budget, managed by the MOH. In 2022, 88 percent of the recurring health budget was pooled within the health insurance fund, managed by the Health Insurance General Authority (HIGA).

### Purchasing

Since January 2021, the HIGA acts as the single purchaser for the two public financing sources (the general government budget and the health insurance [social] fund) and implements streamlined provider payment systems. In 2021, the HIGA updated the benefits package and provider payment mechanism to reduce financial risks to households and individuals by expanding the scope of primary and hospital care and improving the availability of essential medicines. With this arrangement, all COVID-19-related personal health care services have been paid by the HIGA. In addition, the MOH provided additional support to health care providers, including funding for measures such as surveillance, isolation, preparedness, overtime pay, personal protective equipment, and provision of certain types of additional drugs and medical equipment.

**Table 11:** General Government Budget Allocation to the Health Sector in Response to the Pandemic, by Activities for 2020–2021, Excluding Direct Fiscal Support

No.	Purpose	Amount Billion MNT	Percentage	Financing source
1	Primary health care and home care services	70.9	4.8%	Health insurance fund /535 billion MNT, 36.1 percent
2	COVID-19 tests (PCR)	35.5	2.4%	
3	COVID-19 vaccine deployment	25.3	1.7%	
4	Hospital inpatient care	403.3	27.2%	Government reserve fund /126.2 billion MNT, 8.5 percent
5	Health workers' additional salary, masks, PPEs	104.2	7.0%	
6	Surveillance	22.0	1.5%	Government budget
7	Other COVID-19 investments (procurement of vaccines and equipment)	352.4	23.8%	
8		468.5	31.6%	Development partners' contribution
<b>Grand total</b>		<b>1,482.10</b>	<b>100%</b>	

Source: Compiled from the budget database of the Ministry of Finance of Mongolia. September 2022; the Ministry of Health of Mongolia, October 2022.

In terms of designated purpose, 55.4 percent of the COVID-19 response budget was allocated to investment into direct response, including procurement of vaccines and medical equipment, while hospital treatment took 27.2 percent of the total budget allocation. Of this amount, development partners' funding accounted for 31.6 percent. Donors provided goods and equipment to ensure readiness rather than direct cash assistance. Further, 8.5 percent of the total COVID-19 budget was financed by the government reserve fund, largely for emergency, or for expenses of temporary nature such as health workers' additional and overtime payment and for provision of PPEs. In addition, the government conducted a nationwide surveillance activity (one door-one test) that cost 22 billion MNT. In 2021, an amendment provided the reserve fund to provincial and district governors. According to a HIGA report, the spending for COVID-19 health services totaled 535 billion MNT in 2021 (36.1 percent) (*Table 11*). About 50 percent of this allocation was financed by reprioritization of the 2021 budget, while the remaining balance was incurred against the 2022 budget, and/or against the budget from years of accumulated surplus by the health insurance fund during 2012–2020.

Respondents to the survey confirmed a relative sufficiency of needed funding for COVID-19 response in the health sector.

“...The government has provided reasonable funding from the national reserve fund. In addition, ongoing project funding by ADB and WB have been redistributed. Citizens, private entities and the international community have been very supportive with equipment repairs, PPE, and oxygen management...” (A specialist from the Ministry of Health)

“...I don't know much about the finances, but it's not enough to say that the government has solved it to some extent, because the demand is still very high...” (A specialist from Ulaanbaatar City Health Department)

Even though funding has not been the main challenge, key informants in the survey commented on the observed unfair and uncertain management of COVID-19 resources (*Table 12*).

**Table 12:** Challenges Perceived by Key Informants in Relation to Funding and Resource Management

No.	Challenge
1	Donations from the government, international organizations, and citizens were sufficient; however, expenditures were not transparent and accountable, resulting in cases of some private donors stopping their further support
2	Funding at the local government level was inadequate for timely provision of health services to COVID-19 patients
3	District hospitals are not funded for COVID-19. The district emergency commission provided direct support
4	It was not possible to undertake polymerase chain reaction (PCR) tests in the localities, so the samples were sent to the city and the results were obtained after 48 to 96 hours, which caused delays in treatment
5	Some interventions were inefficient, including the one door-one test campaign, and allowing only a small number of hospitals to provide COVID-19 treatment
6	At the onset of the disease, there was a lack of PPEs and diagnostics
7	The 5 percent customs and tax rebates and 10 percent value-added tax (VAT) reductions did not provide real support for stockpiling of medical goods. It is unclear whether these rebates reduced prices for the end user
8	The government did not pay sufficient attention to budgeting for the vaccines.

Furthermore, with the nationwide spread of COVID-19 in March 2021, both the HIGA and MOH faced challenges, including insufficiency in the budgeted funds to respond to increasing numbers of COVID-19 patients, as well as lack of resources to pay and attract more health workers. Unable to continue payment by line-item budgeting to care providers, the MOH, in collaboration with the Ministry of Finance and the HIGA, adjusted and revised the provider payment mechanisms. In 2021, the payment methods were revised in a way that encouraged hospitals to accept more COVID-19 patients, and payment tariffs for provision of new types of services such as home care have been implemented (*Table 13*).

**Table 13:** Key Executive Orders on Provider Payment Mechanism (PPM) during COVID-19 Pandemic

	Orders and decisions	Objective and key changes
1	Resolution No. 3 of National Health Insurance Council, dated January 29, 2021	Changed the PPM from line-item budgeting to case-based payment. Calculated payment rates in line with actual costs of services. Approval of the payment rates for COVID-19 inpatient admissions—4,300,000 MNT per case.
2	Health Minister Order No. A/257, dated April 28, 2021	To enhance financial protection of users. Additional coverage by health insurance scheme for inpatient treatment of COVID-19 infected cases.
3	Joint Order No. 67/A268 of April 2021 by the Ministers of Finance and Health	To supplement and maintain continued spending for COVID-19 services. Due to a depletion of funds allocated directly to hospitals from the government budget, there is an urgent need to fund COVID-19 medical services from the health insurance fund. In addition, the health insurance scheme/fund needed to pay for COVID-19 vaccination at 5,000 MNT per person; PCR test collection at 5,000 MNT per person; home care by PHC providers at 70,000 MNT per case; patient isolation at 650,000 MNT per case; and hospital inpatient cases of varying complexity ranging from 850,000 MNT to 4,300,000 MNT per case.
4	Joint Order No. 99/A387 of June 2021 by the Ministers of finance and Health	To provide more financial protection to patients and to align payment rates with service costs. The HIGA updated the provider payment rates for PCR tests (50,000 MNT per person); home care (160,000 MNT per case); hospital isolation (780,000 MNT per case); and hospital inpatient cases, to provide financial coverage, with payments per case ranging from 980,000 MNT to 7,465,000 MNT, depending on complexity.

According to claims data on COVID-19 cases submitted by the hospitals to the HIGA, the policy changes prescribed in *Table 13* have resulted in increased COVID-19 services and higher usage rates by contracted hospitals. By the end of 2021, 42 percent of the approximately 1 million COVID-19 cases were hospitalized, while 20 percent of patients accessed the primary health care services.

Further, the government initiated financial incentives to improve COVID-19-related service uptake by the population. For instance, an additional bonus was provided to both the COVID-19 immunized persons and health providers. These policies have been adapted based on experience with health insurance schemes in the Republic of Korea (Korea) and China.

### Key findings

- Mongolia has continued to reform its health financing system, and the efforts played an important role in the country's effective response to the COVID-19 pandemic. In particular, these reforms incentivized health care providers to deliver more COVID-19-related health services, while enabling patients to have better financial risk protection.
- The government continued to sustain the needed health budget for COVID-19 by re-prioritizing and mobilizing additional resources largely from the government budget and development partners. The government allocated 29.3 percent of its health sector budget for COVID-19 response in 2020, and 54.1 percent in 2021. When the approved budget for COVID-19 health services was fully used by the first quarter of 2021, immediate mobilization of the health insurance fund provided a critical buffer.
- Funding from development partners, enterprises, and projects has been aimed mainly at ensuring COVID-19 preparedness and providing hospitals with equipment and disposable supplies, whereas the funds spent by the government and the health insurance scheme have been dedicated to ensuring sustainable operations of patient care.
- Two major public funds have been pooled from 2021 with the HIGA as the single purchaser agency. It revised the provider payment policy to reflect the evolving COVID-19 situation, both in terms of expansion of service and cost coverages—home care, vaccination, and adjustments of payment tariffs.



### 3.2.2 Health Service Delivery

The Mongolian health system is composed of three-layered service facilities, organized according to administrative divisions at soum, district, province, regional, and central levels. Primary health care facilities are the backbone of the public health service and composed of family group practices (FGP) (209), soum health centers (321), and intersoum hospitals (6) (Annex 3). FGPs are located in urban settings, and soum health centers and intersoum hospitals are in rural settings. This primary health care system ensures that citizens can access essential health care services at the lowest administrative units across the country. Given the sparsity of population location, this is one of the major achievements of the health sector in the country. Secondary health care is provided by district (4) and aimag (21) general hospitals, rural general hospitals (6), and private outpatient clinics. Tertiary health care is delivered by multispecialty central hospitals and specialized centres in Ulaanbaatar.

As of 2020, 42.0 percent of private health facilities nationwide are private pharmacies, 38.9 percent are private clinics, 9.1 percent are drug suppliers, 6.3 percent are private hospitals with beds, 2.7 percent are sanatoriums, and 1.0 percent are pharmaceutical companies (HDC 2021a).

Order No. A/129, dated April 4, 2017, and Order No. A/52, dated February 4, 2019, included 14 types of medical services in four areas and five types of public health services to be provided at Family Health Centers (FHCs), and 15 types of medical services and 15 types of public health services to be provided at soum and village health centers. According to a joint study by the MOH, the Mongolian National University of Medical Sciences, and the WHO, the primary health care (PHC) provider is implementing 13 comprehensive public health measures at a sufficient level. The average PHC service accessibility was 47.0 percent at FHCs and 88.2 percent for the soum and intersoum health centers (MOH 2020a). It shows that the access to PHC in urban areas is insufficient. FHCs are nonprofit private organizations that provide essential health services on a contract basis. The availability of essential services at family health centers is sufficient, but the service readiness index<sup>3</sup> is 65.1, which is insufficient (Jigjidsuren et al. 2019).

The post-transition health system continues to be dominated by hospital service provision delivered through public (75.8 percent of the total inpatient beds) and private (24.2 percent) facilities. During the last decade, the number of inpatient beds has



*Gobi desert of Mongolia*

increased by 51.9 percent and reached 84.0 beds per 10,000 in 2020 (HDC 2021a). By 2020, three-quarters, or 29.0 percent, of the total beds are for internal medicine, 13.4 percent are for pediatric care, and 10.8 percent for surgical and trauma care. In 2020, the average national bed use rate was 65.0 percent, and the bed turnover rate was 31.6 percent, with patients admitted for 6.8 days on average.

The private sector participation has increased over the last few years, moving from basic services to more sophisticated tertiary-level services, with investments from national as well as foreign companies. Thus, the private health sector has become a strong competitor of government hospitals in terms of human resource capacity, user-friendly care, and modern equipment.

Overall, the physical and technical capacity of both public and private hospitals has improved over the last 10 years as a result of increased investment and selective contracting by the social health insurance scheme based on the service accreditation. For instance, in 2020, major reforms in health financing provided by the Health Insurance Law and the National Health Insurance Council (NHIC) Resolution No. 03, dated January 22, 2021, introduced a uniform payment system for both public and private care providers. This decision expanded the opportunities of receiving equal funding for private health care organizations and public hospitals, per service provided.

Long before COVID-19 Mongolia had established a nationwide network of telemedicine in the health sector (Health Minister Order 2013). Telemedicine services have been well established at the referral level between providers in the health sector. Most of the tertiary hospitals and specialty centers, regional

3. The service readiness index is calculated according to the WHO tool Service Availability and Readiness Assessment (SARA) and shows capacity of health care facility to provide basic and essential services for 24/7.

diagnostic and treatment centers, and aimag general hospitals are connected via the telemedicine network. For instance, the National Center for Communicable Disease leads prevention and response actions during public health emergencies such as COVID-19, and the agency has connectivity with all key institutions including aimag general hospitals and others. Telemedicine is used particularly for emergency care and surgery and is covered by health insurance. In aimags, primary health care centers were using office phones and mobile phones for communication with their clients, as telemedicine had not extended to that level. In Ulaanbaatar, the city government contracted a private teleconsultation unit composed of medical specialists for provision of web-based medical checkups and prescription services to patients, thus supporting and offsetting the workload of primary health care providers.

#### Key findings

- The Mongolian health service delivery system has been organized by three levels of health care. The primary health care providers are the backbone of the health service delivery system and act as the gatekeepers to access to secondary and tertiary care.
- Nevertheless, the health system has continued to be dominated by hospital service provision.
- Over the years, the private sector increased substantially, and about one-third of hospital beds were private by 2020. The policy has been supported by the health insurance scheme in Mongolia.
- Some health services, including physicians' instructions to specialists in remote areas, have been managed via telemedicine to facilitate the access to and availability of health services during public health emergencies.

### 3.2.3 Physical Infrastructure and Workforce Capacity

The National Center for Communicable Disease is the main provider of both public health measures and medical service delivery for infectious diseases in Mongolia. Moreover, the infectious disease departments of secondary hospitals provide inpatient and outpatient services to the people. The NCCD has 420 hospital beds for infectious diseases, and a specialized doctor ratio of 1.2 per 10,000 people.

In 2019, a total of 54,687 health care workers provided services to the people nationwide. The doctor-to-nurse ratio is 1:1.1, and there are 37.3 doctors, 40.4 nurses, 3.3 midwives, and 7.9 pharmacists per 10,000 population (HDC 2019). Infectious disease doctors are trained in a two-year course as resident doctors at the Mongolian National University of Medical Sciences (MNUMS) or the Health Development Center. There are 56 infectious disease doctors at the NCCD. At each aimag and district hospital, there is one outpatient medical doctor, 2 tuberculosis (TB) specialists, 1 specialist in sexually transmitted infections (STI), and 2 to 3 inpatient medical doctors in the infectious disease wards. Since 2009, Mongolia has trained 70 field epidemiologists, who have been in high demand during the pandemic.

Regulations and guides to setting up an isolation room were prescribed in a 2019 health minister order (Health Minister Order 2019). The order mandated that a quarantine room or isolation room for infectious diseases at the Class-Q<sup>4</sup> grade one/s level be established in health care facilities, including in NCCD specialized and general hospitals, district health care centers, and emergency departments of aimag general hospitals. Also every health care facility that has an inpatient ward must have a quarantine room in each ward or unit. For health care facilities capable of providing only outpatient care, if there appears to be a patient with a respiratory infectious disease, then the order stated to temporarily isolate the person in the current room, then transfer the patient to the NCCD. Regulations and rules to follow for quarantine and isolation rooms have been clearly stated.

Moreover, the minister of health order contains the articles (Health Minister Order 2020a, Health Minister Order 2021d) on type of health-care isolation facility or medical facilities for COVID-19 patients: red for

4. Isolation facilities include the following types: Class S—neutral or standard room air pressure (for example, standard air conditioning); Class P—positive room air pressure, where an immune-compromised patient is protected from airborne transmission of any infection, including an anteroom; Class N—negative room air pressure, where others are protected from any airborne transmission from a patient who may be an infection risk, including an anteroom; and Class Q— quarantine isolation, with negative room air pressure with additional barriers including an anteroom.



## On December 7, 2020, the MOH informed the public that “During the pandemic period, our priority was to improve the hospital capacity in terms of needed equipment and ICU beds.”

infected zone, yellow for high-risk zone, and green for safe zone. These orders guide the standard operating procedures including registration, admission, ventilation, and other steps. For instance, according to the health minister order (Health Minister Order 2019), the medical facilities that provide treatment for infectious diseases and tuberculosis should have isolation rooms with negative air pressure (Class-N).

By January 7, 2021, there were 5,366 inpatient beds nationwide, of which 309 were ICU beds (Montsame news 2021a). Moreover, as COVID-19 infection widespread, the minister of health (Health Minister Order 2021e) requested health care facilities to further increase the number of ICU beds at 10 percent of total inpatient beds. Accordingly, by June 2021, the total number of inpatient beds had increased 3 times, and ICU beds 3.3 times.

Even though the infrastructure and hospital building have not been adequate in terms of medical standards during high transmission of infections, and the health system faced insufficiency of needed equipment, compared to other low-income countries, Mongolia’s ICU capacity is higher, with 11 ICU beds per 100,000 people (Erkhembayar et al. 2020). With the increased supply of ventilators and oxygen supply devices, the requirement for staff training was important. However, only 59 percent of the hospitals were reported to be conducting staff training on the safe usage of ICU equipment (Health Development Center 2017). According to the MOH (2022), three extracorporeal membrane oxygenation (ECMO) machines were procured to improve the quality of intensive care services for COVID-19 patients. Health care facilities have been provided with ventilation machines, lung monitoring devices, and other necessary devices (Batbayar O 2022).

On December 7, 2020, the MOH informed the public that “During the pandemic period, our priority was to improve the hospital capacity in terms of needed equipment and ICU beds. For instance, recently, 400 ventilators were provided by the World Bank and ADB funded projects, 125 from WHO and 50 from USA Embassy. This time, we are distributing 175 ventilators to specialized and district hospitals. More ventilators will be provided to the emergency departments of aimag general hospitals in coming days. We have been working to build oxygen plants in aimags.” (Montsame news 2020) The MOH stated that by June 23, 2021, there were a total of 1,087 ventilators nationwide (News 2021a).

In terms of oxygen supply system, a study (2017) revealed that there were only two plants for oxygen production for hospitals—25 (11.5 percent) hospitals had a full integrated oxygen supply system, and 128 (58.9 percent) hospitals had a partial one, within the hospital; while 63 (29.6 percent) were using mobile balloons for oxygen treatment (HDC 2017). Since the COVID-19 pandemic, oxygen tube plants for hospital use were established under the NCCD, and six district hospitals’ oxygen supply systems within the hospital were upgraded and strengthened (Government news 2021). As of June 2021, construction of oxygen plants was completed in 13 hospitals (eight in Ulaanbaatar and five in aimag hospitals), and an additional 16 plants in aimags were going to be established by the end of 2021 (Ikon news 2021). As of June 2022, constructions of mini-oxygen plants were completed in 15 hospitals (six in Ulaanbaatar and nine in aimag general hospitals) (Munkh-Erdene L et.,al 2022).

The legal environment was established to assure medical supplies during the pandemic. The COVID-19 Law stated (7.1.33) that necessary medical supplies,

## PREPAREDNESS

equipment, and medicine must be imported and passed through the border checks with fewer procedures. At the same time, to assure the resource of the required supply (7.1.14), the medicine, medical equipment, tests, reagents, sterilizations, disinfectants, civil protection tools, food, and other necessary goods were prohibited from being exported. According to the Government Action Plan for 2020–2024, it was decided to extend the tax exemption (VAT) for COVID-19 tests, medicine, medical equipment, sterilizations, and disinfectants. Article 25 (25.7) of the Budget Law stipulates that aid and donation income shall be registered in accordance with relevant regulations and delivered within one month, and that protective equipment (disposable masks, gowns, insoles, hats) received as donations shall be provided in accordance with the level of health care facilities by order of the minister of health.

However, the survey respondents stated that the implementation of the decisions was not adequate. For instance,

“...Tax exemptions of 10% of VAT are not a real support for stock building. It would have had an effect if it had been exempted until the end user, when supplier sale to the hospitals, it have to pay 10% VAT as for the end user.<sup>5</sup> That’s why the action would not affect the price reduction...”

“...Exemption of customs duty by 5% for medical products did not show real support to the suppliers. The suppliers still had to pay VAT and it affected both suppliers and end users...” (Director, supply company)

The supply of medicines, medical devices, and disposable protection equipment is provided by private licensed suppliers and is based on the efforts, performance, and participation of the private sector.

The MOH and the Medicine, Medical Device Control and Regulation Agency are in charge of regulations of registration, import permit, and other relevant operations.

The Human Medicine Committee convened and provided emergency approval of importation of COVID-19-related medicines, vaccines, and medical devices in order to maintain the supply of those products. The emergency approvals were granted for 288 items of 20 types of medicines in 2021, and for 196 items of 19 kinds of products and supplies in 2022 (Batbayar O 2022).

The interview participants reported that the supply and quality of medicines, medical supplies, and personal protective equipment has been insufficient.

“...Although new drugs have been developed for the treatment of COVID-19, there were some drugs that are effective for the use of COVID-19 in the past, but they were not registered in our country. Drug suppliers have created reserves for their own sake...” (Director, supply company)

“...Difference in quality was too much, specially some of the protection clothes that came by tender had very poor quality, supply of hand sanitizer, soap, and tissues were insufficient. We can feel that finance has gotten harder this year compared to last year, therefore we have also bought additional clothes by ourselves....” (Doctor, district hospital)

“...Having the right size and quality medical glove was challenge. There was only one size glove available and did not fit everyone, hence gloves were frequently teared up. The hats were tearing up even before we wore them. We had to replace it after several complaints to the management...” (Nurse, aimag hospital)

5. Exemption of customs duty by 5% for medical products did not show real support to the suppliers. The suppliers still had to pay VAT and it affected both suppliers and end users

### Key findings

- The NCCD and departments of infectious diseases in aimag and district hospitals have provided medical services for COVID-19. When the local transmission increased, the ICU bed capacity was tripled, and general medicine wards of hospitals were transformed into COVID-19 managing wards.
- Some challenges remain in terms of distribution and supply of medical personnel who are to work in the infectious disease departments and ICUs during COVID-19.
- As infections increased, the availability of ICU beds and ventilators was insufficient. In response, the Mongolian government acted swiftly to reach out to its development partners, and additional purchases were made within a relatively short period of time. However, the continuous training of the hospital staff in safe operation for ICU equipment remained challenging during the crisis.
- New oxygen plants were built or upgraded and put into operation to ensure continuous supply of medical oxygen as one of the key and lifesaving medical supplies.
- The government implemented emergency modalities to ensure sustainable supply of medical products.
- Necessary medicine, medical equipment, and PPEs have been provided by the private sector, although quality varied.



*Nurse going to nomadic family to provide COVID-19 immunisation*



Emergency room at "Luus" soum health center, Dundgobi province

Төрөл	Тусламж эзлэх хугацаа	Тусламж үзүүлэх арга
I Амьтан	Шууд өгнө	Бас
II Нас яаралтай	15 минут	Улам
III Наралтай	30 минут	Шар
IV Яаралтай бус	60 минут	Хөх
V Хушгаар болгохтой	120 минут	Цагаан



# 4. RESPONSE

## 4.1 Governmental Response to Contain COVID-19

### 4.1.1 Lockdown, Travel Restrictions, and Quarantine

According to the Oxford COVID-19 Government Response Tracker (OxCGRT), by July 26, 2021, the stringency index of Mongolia was 59 (where 100 is the strictest). At the beginning of 2020, the index was 11.11, while many other countries were (0 index) not responding to the pandemic (Oxford 2021).

As stipulated by the COVID-19 Law, the government of Mongolia has been implementing measures (COVID-19 Law 71.1) to contain the spread of infection, including full or partial lockdowns,<sup>6</sup> travel restrictions, quarantine, and other measures to restrict population movement, such as business time restrictions and remote/teleworking arrangements. The law also approves the related regulations and guides to ensure effective implementation. Accordingly, since November 2020, when Mongolia reported locally transmitted COVID-19 cases, the government declared five nationwide and partial lockdowns (*Annex 4*). During these lockdowns, 15 kinds of essential public services including electricity, heating, medical, medicine supply, transportation, water, and government special services were operational in a restricted form; all other public services were closed, and people had to stay at home.

There were three full nationwide lockdowns in 2021: from December 23 to January 6, during

the Lunar New Year Holiday (between February 11 and 23), and from April 10 to May 8. Partial or localized lockdowns were undertaken at the aimag/province level for a limited period, depending on the infection rate.

However, many issues were raised in relation to the management of COVID-19 lockdowns and implementation of related regulations. For instance, the governor of Ulaanbaatar city made a public apology for poor organization of lockdown processes and making citizens bear various difficulties (The Governor of the capital city 2021). The lockdowns were announced with a short notice of one to two days, which resulted in people's chaotic movement to do shopping and other product stocking, with many complaints about unclear information and the decision-making process (Nyamsuren et al. 2020). A substantive share (41.18 percent) of interview participants considered that organization of the lockdown, especially implementation of the guidelines and rules, was not properly communicated to the lowest level of public service providers. Moreover, steps and measures to lift the lockdowns were also poorly managed, with sudden bursts of people's movements. Based on interview results, the effect of the second lockdown, with the purpose of organizing

6. According to the COVID-19 Law, lockdown (4.1.3) is the measure aimed at preventing the spread of communicable diseases in the population and territory for a certain period of time, catching and controlling the infection at its original source.



## According to the COVID-19 Law of Mongolia, travel restriction (7.1.19) means restriction of the movement of people and vehicles going across the state border and of domestic passengers for a certain period.

the one door-one test (ODOT) mass screening, led to more patient overloading and exhaustion of the health care sector.

According to the COVID-19 Law of Mongolia, travel restriction (7.1.19) means restriction of the movement of people and vehicles going across the state border and of domestic passengers for a certain period. Domestic travel restrictions were set for a limited timeline. The first time, in relation to the first imported case occurrence, the government set the domestic travel restriction for March 10 to March 16, 2020 (SEC 2020a). Traveling from infected areas to green places was allowed for those who had negative PCR test results within 72 hours of travel. Since May 2021, passengers with a full dose of vaccination and those who have recovered from COVID-19 infection are permitted to travel freely.

On the other hand, travel restrictions were more stringent for in- and outbound travel either by air or land. The border with China was closed starting on January 31, 2020, by Government Resolution No. 39, and quarantine of the travelers was put in place. Air and rail travel to and from Korea was stopped on February 25; to and from the Russian Federation (Russia), Kazakhstan, and the Republic of Turkey (Turkey), on March 10; and to and from Japan and Germany, on March 17, 2020. As a result, international passenger traffic was completely halted, and special duty charter flights were used to carry citizens from other countries, with monitoring under quarantine (SEC 2020b). By June 2021, the border had opened

for 10 different countries, including Turkey, the United States (US), the United Arab Emirates (UAE), Greece, Thailand, Indonesia, Brazil, Egypt, India, and Kyrgyzstan.

Between January 31, 2020, and July 1, 2021, a total of 31,647 people from 93 countries were transported by charter flights. Additionally, 4,266 persons came through Mongolian and Chinese land border ports, and 2,487 persons traveled through Mongolian and Russian border ports (MFA 2021).

Quarantine is defined as isolation of suspected infected persons and hand luggage, containers, vehicles, goods, and postal items contaminated with the infection (COVID-19 Law of Mongolia 4.1.4). The regulation for quarantine actions for international travelers by air and land was approved by the chair of the SEC and the vice prime minister's order (March 14, 2020), and procedures were approved by Health Minister Order A/269 (March 2020). The quarantine team is composed of representatives from the NEMA, Police, Army, GASI, MOH, NCCD, NCZD, Civil Aviation Authority, and Ulaanbaatar Railway. International passengers were requested to fill in the Health Checklist and undergo symptomatic and clinical checkups. The suspected cases were transported to the NCCD, and others were sent to quarantine centers for further monitoring. The quarantine centers were under a 24-hour security service, and medical services were provided by a doctor, nurse, and assistant. The quarantine mode and timeline have been revised occasionally, as shown in below in *Table 14*.

**Table 14:** Quarantine Timeline for International Passengers, as of June 2022

	Date of SEC decision	1st week	2nd week	3rd week	4th week	5th week
1	March 14, 2020	facility quarantine		self-quarantine		
2	March 27, 2020	facility quarantine			self-quarantine	
3	December 9, 2020	facility quarantine		self-quarantine		
4	February 25, 2021 (SEC 2021a)	facility quarantine 10 days	self-quarantine 4 days			
5	March 31, 2021 (SEC 2021b)	facility quarantine	self-quarantine			
6	May 7, 2021 (SEC 2021c and SEC 2021d)	facility quarantine	self-quarantine			
		No quarantine: 14 days after the full dose of the vaccine, and if the patient has recovered in the last four months				
7	June 24, 2021 (SEC 2021e)	facility quarantine	self-quarantine			
		If coming from the country where the mutated virus registered		self-quarantine		
		No quarantine: 14 days after the full dose of the vaccine, and if the patient has recovered in the last four months				
8	February 16, 2022	Full opening of the border and no requirement from passengers				

An evaluation revealed some challenges with the implementation of precautionary measures within the quarantine centers; these issues in turn became the cause of the outbreak from the quarantine centers. Complicating factors included inadequately followed hygiene precautions, poorly conducted disinfection processes for the facilities, lack of personal protection supplies for the staff, and overloaded daily tasks for the resident doctors (MOH 2021c). In addition, some key informants reported that the overseeing of quarantine facilities by different government agencies eventually resulted in poor coordination and accountability in terms of quality of services, training of personnel, and so forth.

In order to improve the quarantine process, a website called “tabinfo” was launched on March 1, 2021. This allowed passengers to learn about the facilities and enabled their choice among the facilities and rooms (SEC 2021f).

There have been a number of reports that human rights issues have been raised during the quarantine and lockdown. The National Human Rights Commission (NHRC) reported (20th report) that government decisions were inconsistent with human rights and not sensitive to the basics. The rights of citizens were being violated due to the lack of coordination between the agencies responsible for maintaining the lockdown and quarantine regime, lack of human resources, and lack of clarity on tasks assigned by the administration. Therefore, the NHRC recommended that evidence-based actions be mandated during the lockdown and quarantine to regularly train and instruct law enforcement officers on proper use of special enforcement tools, to avoid human rights infringement and abuse of their authority in the performance of their duties (NHRCM 2021).

“...The many works and actions were done during the pandemic. Some of them were effective while others were not good as expected. The one thing should be noted. The many events occurred during the pandemic, which clearly showed the human right violations...” (Representative from Red Cross Organization)

Interview respondents expressed that there were some issues that negatively reflected on the quarantine process, including an excessive number of days, not permitting families to provide sufficient supplies of basic necessities to those in quarantine, lack of other health services provisions, and poorly resolved complaints and requests from the travelers.

### Key findings

- Since the onset of the pandemic, Mongolia implemented various public health measures (including several lockdowns, travel restrictions, border closures, and quarantine of passengers) to contain the spread of the virus and had a higher stringency index compared to many countries.
- Nationwide lockdowns were organized in order to prevent COVID-19 spread during the national holidays and New Year’s celebrations. The SEC learned some harsh lessons regarding operational management challenges during lockdown and the release or lifting of restrictions afterwards.
- Quarantine was conducted for a period of 7 to 35 days, including for entrance to the country, close contact, and travel from an infected area to an uninfected area. Quarantine is not required for passengers traveling 14 days after receiving the full dose of the vaccine and/or who recovered from the infection in the last four months. In February 2022, the country declared a full opening of its borders to the world.
- There were reported human rights violations related to lockdown and quarantine. In response, the National Human Rights Commission prepared the 20th Report on Human Rights and Freedom and submitted it to the speaker of the State Great Hural, along with recommendations on improving the organization and operation of lockdowns.



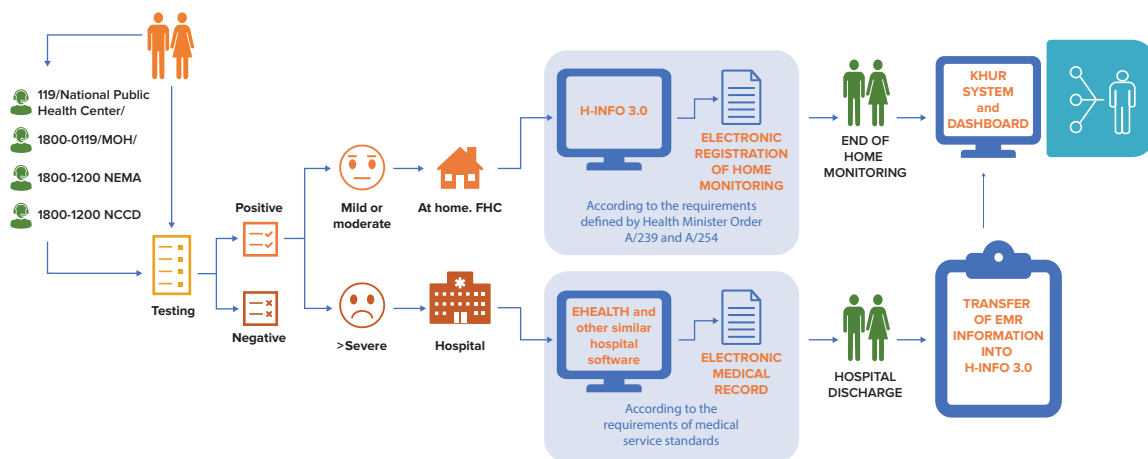
*Vehicle for COVID-19 vaccine deployment with cold chain equipment in the rural areas of Mongolia*

### 4.1.2 Testing, Contact Tracing, Isolation

Testing, contact tracing, and isolation measures have been changing over time and are based on the infection spread situation. The process implemented since May 2021 is described in *Figure 9*.



**Figure 9:** Road Map of Information Flow in Testing, Contact Tracing, and Isolation



HM Order No. A/319, dated May 18

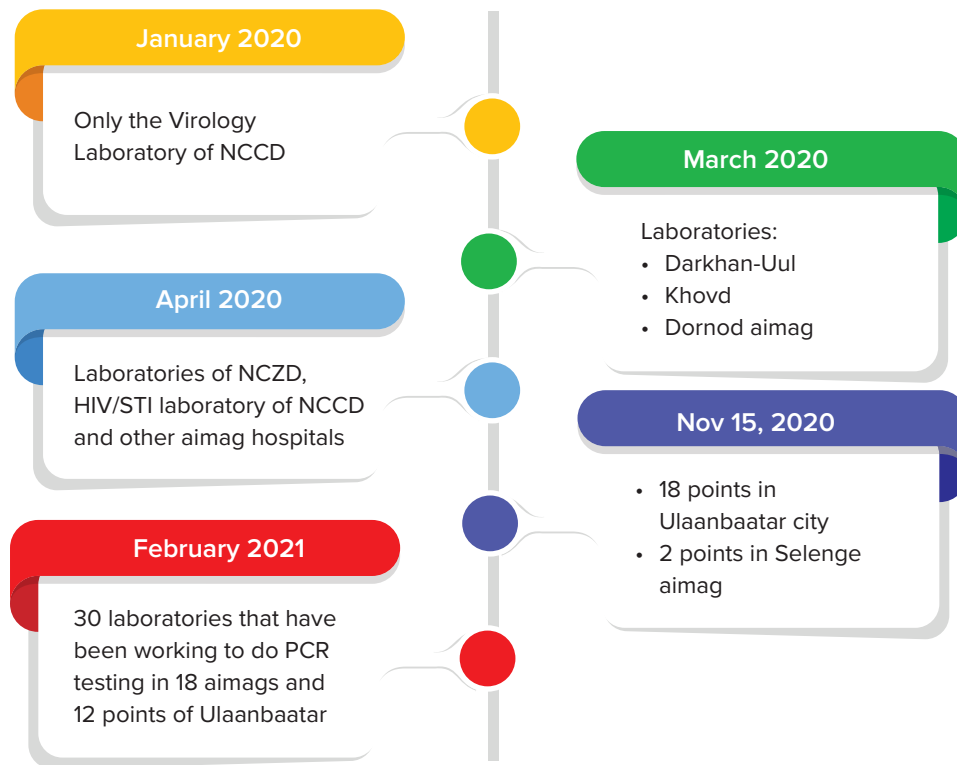
**Testing**

A series of activities has been implemented to improve access and accuracy of COVID-19 testing—measures such as improvement of testing methodology, upgrading laboratories, and building capacity of human resources and equipment. The first regulation on methodology for sampling and testing was approved by the Health Minister Order dated February 12, 2020. The regulation was updated eight times until May 2021, and it has included more types of tests—the antibody rapid test, PCR, antigen rapid test, and the ELISA (enzyme-linked immunoassay) and CLIA (Clinical Laboratory Improvement Amendments) tests.

In connection with these policy updates, the capacity and scope of the testing was improved by increasing the number of trained specialists and laboratories capable of performing PCR analysis for COVID-19 RNA using the quantitative method, which is the gold standard for the diagnosis of acute coronavirus infection. Only the virology laboratory of the NCCD was conducting PCR testing for COVID-19 in January 2020 (Figure 10). Then in March 2020,

laboratories of Darkhan-Uul, Khovd, and Dornod aimag hospitals started to conduct PCR testing. Starting April 2020, laboratories of the NCZD, the HIV/STI (human immunodeficiency virus/sexually transmitted infections) laboratory of the NCCD, and other aimag hospitals were upgraded to do PCR testing. By November 15, 2020, testing centers were established at 18 points in Ulaanbaatar city and two points in Selenge aimag. By February 2021, there were 30 laboratories doing PCR testing in 18 aimags and 12 points in Ulaanbaatar (Health Minister Order 2021f). As of June 2022, COVID-19 PCR testing is available in every geographical aimag of Mongolia and at border points, such as Gashuun suhait.

“Any bad event has its good point, so there are several achievements within the health sector during the COVID-19 pandemic. For instance, the vaccine storage building by international funding. Every aimag hospital of the country can conduct PCR testing now.” (Representative of NCCD)

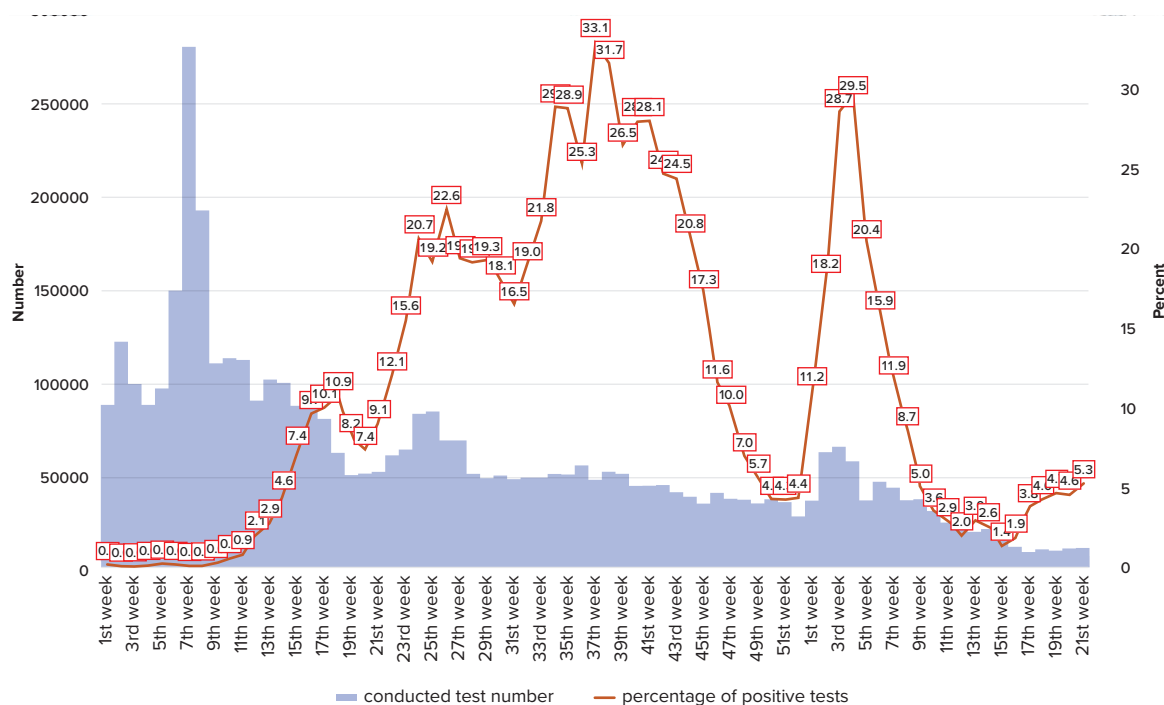
**Figure 10:** Timeline of PCR Testing Laboratories for COVID-19

As the number of the testing facilities increased, the capacity improved to up to 10,000 tests per day (Figure 11).

Further, the antigen rapid test (lateral flow) has been used for permission for exit and entry of domestic travelers around the country (SEC 2021g). Antibody rapid testing and chemiluminescence serological testing have been used for testing immunity after recovery from the infection, as well as after full dose of vaccination, through out-of-pocket payment, as it is available in the private sector.

The NCCD is responsible for conducting internal and external controls of the PCR testing laboratories. Within the framework of internal control, the NCCD's viral hepatitis laboratory monitors the results of tests performed in public and private hospitals and laboratories and provides technical guidance and recommendations (Health Minister Orders 2021g). In addition, in order to improve the external control of the laboratory, the NCCD Virology Laboratory received a "COVID-19 monitoring and evaluation package" sample from the Hong Kong Public Health Laboratory on July 17, 2020, and participated in the skills assessment (NCCD 2020a).

**Figure 11: COVID-19 Test Positivity Rate, as of June 2022**



Source: 21st week report, NCCD, June 2022

Different models were implemented to respond to the local context. For instance, additional sample collection points were added, and mobile points were operationalized for a certain period to increase the accessibility of testing and bring it closer to the public. The private hospital Intermed successfully introduced drive-through testing.

“...We have conducted research on international experience and established a mobile laboratory with an investment of 600 million MNT to offer a low-risk and open testing facility...” (Vice director, Intermed Hospital [private health care provider])

In order to increase the accessibility and availability of PCR tests, it was decided to reimburse the cost of tests (3 to 4 tests per patient) from the health insurance fund for the patients admitted and when epidemiologically requested (Health Minister Order 2021h). Also, according to the Minister of Health Order dated April 20, 2021, antigen rapid testing should be considered equal to PCR testing when there are symptomatic cases in orange and red zones, based on COVID-19 infection rates.

### Contact tracing

Rapid response teams (15 teams with 128 specialists) were established according to the minister of health order (Health Minister Order 2020b). The teams included epidemiologists, staff in charge of disinfection, laboratory assistants, intelligence and police officers, drivers, and team leaders. Each team is mandated to report to management 24 hours a day.

The NCCD’s Rapid Response Team is responsible for administering a detailed clinical questionnaire to the confirmed patient, conducting clinical assessment of the patient, registering the outbreak point, taking appropriate action, issuing consolidated reports nationwide, and providing professional and technical guidance. The aimag and district rapid response teams are responsible for organizing the clinical response actions, conducting testing for confirmed cases and close contact, and registering only close family contacts. The Joint Contact tracing team of the General Intelligence Agency and the General Police Department register the close contact/s, map the route of the confirmed case, and find the addresses of

the close contacts. The aimag and Ulaanbaatar health departments organized surveillance and response actions in cooperation with the NCCD, districts, FGPs, and other organizations (NCCD 2020b).

Moreover, the authorities used various technologies to support and improve contact tracing. For instance, Go.Data (Mongolian version), QR code scanning at ebarimt.mn, and COVID-19 Ersdel were used. Seventy-eight specialists were trained nationwide and provided with tablets.

Interview respondents also noted the progress made in integrating tracing, testing, contact mapping, and vaccination information on the Gerege platform.

“...The number of testing and registered cases are shown real time and in an interactive way on Gerege platform. Now we can see real-time data, surveillance and vaccine information are all from one place. It made it easy to see and know close contacts that can be tracked and tested. It is connected to the health insurance fund system electronically, therefore, now it is possible for drug agencies to calculate their resources for the infected cases...” (Deputy Director, Ulaanbaatar Health Department)

Respondents participating in focus group discussions (FGDs) noted that there were some difficulties in organizing contact tracing and testing; for instance, there were unclear addresses for the households and private entities, and fear on the part of close contacts that they would be quarantined.

“Infected people are not willing to tell about their routes and the close contacts due to depression. Also, there were some problems with confirmed cases with poor ability of language and hearing.” (Aimag, epidemiologist)

The study participants agreed that the principle of case-based contact tracking and testing is more effective than mass screening, and that PCR testing should be free of charge for contacts and epidemiological indications but not free for voluntary cases.

“...We spent much of time, funding and human resource for mass testing and the whole system weakened during that time. Maybe we should focus more on effective testing way for the people. Only the contacts could be covered, then the resources could be spent smartly...” (UB health department officer)

### **Isolation of confirmed cases, including patient classification and triage**

Isolation of the cases was both facility- and home-based. Facility-based isolation was initially conducted at intensive care units of the NCCD and other designated hospitals, including the Army general hospital. However, as local transmissions increased, a health minister order (Health Minister Order 2021i) provided a guide on conducting clinical assessment and triage among the confirmed cases, and on subsequent need for isolation at a hospital or home. If the PCR test was positive and a lung X-ray showed changes, then the patient had to be admitted and clinical triage assessment done. After clinical triage assessment, mild and moderate cases were admitted to ordinary treatment units; whereas severe and very severe cases had to be transferred to ICUs. Treatment guidelines for hospital-isolated cases were approved by the health minister order, which has been updated seven times between January 2020 and April 2021 to include new evidence and medicines. Treatment guidelines for home-isolated cases were also updated twice.

A patient needed to agree to the home isolation requirements/conditions and sign the consent sheet, to stay in home isolation (Health Minister Orders 2021j). The home isolation requirements are that the patient's infection status is mild without chronic disease, the family group is small, there is no risk-group person within the family, family members agree, the confirmed case or family member is able to contact a health care professional, the internet is accessible, and the patient is financially able to purchase food and disinfection supplies.

Although the admission criteria were set, and hospital beds were increased at both public and private hospitals, there were challenges at the operational level when less severe cases were admitted during the peak of the waves. In response, a hospital bed regulations team was established to oversee admission to the hospitals (MOH and MOF 2021). For home-isolated people, a medicine package was provided from primary health care centers, which led to complaints and discussions among the population regarding the selection of the medicines, and to the concern that the medicine package was prepared by nonpharmaceutical personnel (Unuudur 2021).

### Key findings

- In the beginning, testing, contact tracing, and isolation capacity were challenging steps. Issues have been resolved gradually with human resource training, intersectoral collaboration, and technological development.
- The initial lack of facilities with proper capacity to conduct COVID-19 testing was addressed with new and upgraded facilities at both public and private laboratories, to cover the entire country. Changes in testing strategy, with availability of both PCR and antigen rapid testing, eased the testing overload.
- Although the contact tracing has been organized by multisectoral teams with support from information technological systems, there were challenges such as incomplete residential addresses, people's fear of being quarantined, and communication issues with some people with disabilities.
- Surveillance activities regulated by the health minister order are case based, hospital based, and done through the flu surveillance system and voluntary testing, and they have made use of digital technology. The flu surveillance system established earlier was used during the pandemic.
- Isolation of the confirmed cases has been conducted at hospitals and homes. Although there were enabling legal and financial conditions, there were challenges in conducting triage, admission, and home monitoring at the operational level.

### 4.1.3 Risk communication and information disclosure

The Disaster Protection Law (16) defines the risk communication regulations during disasters and pandemics. According to this, disaster and alerting signals, information about disaster situations, actions taken, warnings, and exchange of information should be organized immediately through all available media and channels of information distribution in the public and private sectors. The government is mandated to immediately and extensively provide (clause 7.1.11) accurate information on protection, responses to the disease, and staying safe during a pandemic. Moreover, the COVID-19 Law also stated the principles (5.1.7) of prohibiting information distribution that could harm an individual's reputation and cause psychological injury, as well as those for (5.1.6) communication and information exchange among the parties and getting support and involvement of the people.

As per the Law, to fulfill the above-mentioned responsibilities, the government must transfer public services (such as all types of civil documentation and registration, approval of permissions and licenses, and so forth) into online mode (7.1.28), introduce and support the application of the integrated digital system (7.1.29), provide postal services continuously (7.1.30), and enable sustainable working conditions for communication information technology companies (7.1.31).

Risk communication during the COVID-19 pandemic was performed within the framework of the incidence management system (IMS) by the communication team of a multisector working group (Order No. A/81), led by the NCCD. The team has been providing routine information to the National Security Council, SEC, NEMA, State Inspection Agency, and health organizations to support decision-making and resolve issues.

To provide information from a single source, the team had been conducting daily press conferences at 11 a.m. since January 2020. The team is composed of officers in charge from the Emergency Operational Center at the MOH, the chair of IMS and director of the NCCD, and the IMS manager and department heads of the MOH. The content has included numbers of new cases of infection, health status information of the hospitalized patients, deaths and recovered patients, warnings, recommendations of protection, disease management, and other relevant activities organized by the SEC, MOH, NCCD,

## Public information should be designed to strike a balance between public fears, frustrations, and the real dangers of the situation.

NEMA, and others. To provide evidence-based information, the review of the articles and guidelines were presented during some sessions of the press conference.

“...The information provision from a single source at 11 a.m. every day enables us to centralize information and raise public awareness...”  
(Officer, MOH)

Emergency communication hotlines include those for the MOH (323002), NCCD (80086829), Public Health Institute (PHI) (119), and National Health Development Center (NHDC) (1900199) and have been maintaining 24/7 mobile operators to provide information, recommendations, and consultations to the people. Social media channels including Facebook and Twitter have been used extensively to disseminate risk communication information through short videos (10) and infographics (more than 45). The twice daily livestreaming of the COVID-19 situation through the MOH Facebook page has been accessed by about 600,000 people and shared 6,000 times, on average (ADB 2021). Public education and awareness raising campaigns such as “Let us wear masks and wash hands” and “Hygiene movement” were implemented (Amgalan J 2022). Moreover, a mobile messaging service was used to deliver short messages on warning and recommendations to mobile phone users.

Public information should be designed to strike a balance between public fears, frustrations, and the real dangers of the situation. The risk of COVID-19 has been assessed as high throughout the country,

therefore the principle of increasing the people’s fear or explaining the risk and promoting joint efforts to cope with the situation have been applied. However, some respondents in the interviews expressed that the content of the initially provided information communication was based on recommendations from professional epidemiologists, and that too much information and warnings later became boring and intimidating.

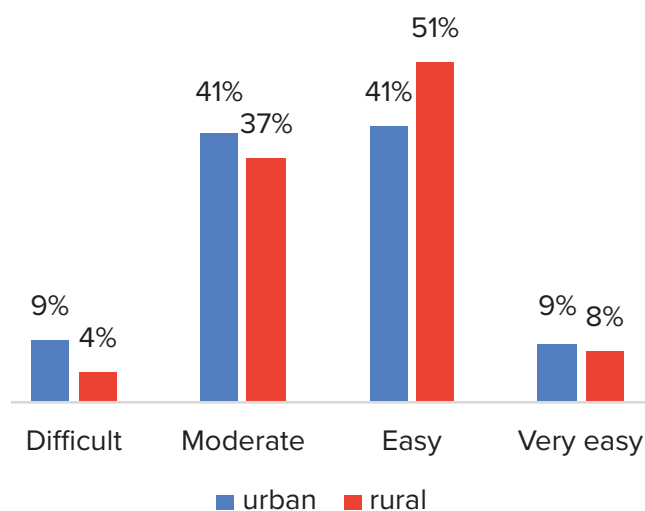
“...Information distribution was good and through all kinds of channels, but citizens were annoyed that too much information, like the Ministry of Media, was given too often and for too long. I hope lesson is learnt in how to accordingly convey negative information to people’s psychology. Special management is needed for the communication.... (Head of an international organization)

The accessibility of information was checked using the online survey. According to the survey, 41 percent of participants from Ulaanbaatar found it easy to get information related to COVID-19, while only 9 percent of them found it difficult (*Figure 12*). In aimags, 51 percent of the respondents found it easy and 4 percent found it difficult to obtain information related to COVID-19.

Information availability for non-COVID-19-related medical services was also investigated. Half of the respondents were not able to get that kind of information without visiting the health care facilities in urban (54.5 percent) and rural (58.9 percent) areas.

**Figure 12:** Access to COVID-19-Related Information

How easy or difficult would you say it is to find the information you need related to COVID-19?  
(N=334, %)



Another study revealed that information content was not equitable or did not address specific needs of different groups of the society; for instance, it has not been distributed in the Kazakh language or braille letters (Suvd B 2022). With regard to personal information disclosure, some issues emerged during the early stages—inappropriate disclosure of personal information occurred in contact tracing, such as announcement of the citizen's ID number, full name, and photo (NHRCM 2021).

### Key findings

- The legal environment for risk communication is established within the framework of the Law on Disaster Protection and Law to Prevent, Control and Reduce Negative Impact of the COVID-19 Pandemic.
- The risk communication team of the IMS worked according to the International Health Regulations (IHR) and the assessed risk levels.
- Infection, mortality, and infection-specific warnings were provided daily at the press conferences at 11 a.m. through television, social media, and news websites throughout the country.
- Although risk communication activities were accessible by the people, concerns were raised that their accessibility by different social and ethnic groups might not be ensured.
- Inappropriate disclosure of patient personal information during contact tracing was observed during the initial period of cluster distribution. However, the situation has improved, and corrections have been made, as officials faced public criticism on social media.

## 4.2 Health System Response

### 4.2.1 Primary Care

Until about November 2021, primary health care (PHC) providers have been largely engaged in maintaining essential health care services or non-COVID-19 health services (*Table 15*). However, as the pandemic surged, the PHC providers have been mobilized for immediate response actions and have been managing patients isolated at home. To ensure preparedness and reduce the risk of COVID-19, the following decisions were made to involve the PHC level.



**Table 15:** Ministerial Orders for Primary Care

	Orders and decisions	Objectives
1	HM Order No. 101, dated February 18, 2020	Approved a plan for ensuring hospital preparedness in the event of COVID-19 infections, including the activities to be undertaken by health care providers at all levels, and the calculation of hospital beds, instruments, equipment, and PPE equipment required for readiness.
2	HM Order No. A/247, dated April 17, 2020	Issued temporary guidelines for home-based treatment and monitoring of COVID-19 suspected and diagnosed mild cases
	HM Order No. A/248, dated April 17, 2020	Approved COVID-19 infection early detection and treatment procedures; guidelines for counseling and monitoring of at-risk populations, to be implemented by PHC organizations as gatekeepers; and infection prevention control schemes.
3	HM Order No. A/101, dated March 4, 2021	Approved guidelines for home treatment and monitoring of suspected new and mild clinical symptoms, including the establishment of a home-based treatment and monitoring team and the provision of medical services financed by the health insurance fund (HIF).
4	HM Order No. A/239, dated April 21, 2021	Approved procedures of the provision of medical services for COVID-19 asymptomatic and mild patients isolated at home, for PHC organizations
5	Joint HM and FM Order No. 337/A/99, dated June 1, 2020	Approved the “Procedure for financing comprehensive care and services to be provided by FHC doctors and staff during the outbreak of coronavirus infection (COVID-19),” and approved funding of 160,000 MNT for home care by primary health care providers for those who paid for health insurance. These costs include medical treatment, protective clothing for family doctors and medical professionals, salaries, bonuses, telephone counseling, and transportation from home to hospital.

Soum health care centers (SHCs) in remote settings admitted COVID-19 patients and treated asymptomatic, mild, and moderate cases; these centers have been involved in sample collection and vaccination activities from the beginning, in accordance with the instructions given by the aimag health department. Family health centers (FHC) in aimags and cities have been managing asymptomatic and mild cases in home isolation since July 2021. According to an MOH report (dated April 25, 2021), over 8,000 COVID-19 patients have been in home care and isolation under monitoring by PHC providers.

The government covered the surveillance and vaccination of COVID-19-infected households through the health insurance scheme, and the family health centers have begun to participate in a wide range of COVID-19 infection control activities. As

of the first half of 2021, the health insurance fund allocated 2.3 billion MNT to FHCs and 3.4 billion MNT to SHCs (HIGA 2021).

#### 4.2.2 Hospital Care

When there were few COVID-19 cases, the service was provided through the NCCD and Military Central Hospitals as COVID-19-designated hospitals in Ulaanbaatar, and infected cases were transported from aimags and districts. Regular services provided by these hospitals were transferred to, and provided by, other hospitals. As the number of COVID-19 cases increased, it was no longer possible to continue to manage the situation as before. Therefore, other public hospitals have been used for this purpose since February 2021 as regulated by the following decisions (*Table 16*).



**Table 16:** Orders and Decisions for Provision of Medical Services

	Orders and decisions	Objective
1	HM Order No. 101, dated February 18, 2020	Plan for ensuring hospital preparedness in the event of COVID-19 infections, including the activities to be undertaken by health care providers at all levels, and the calculation of hospital beds, instruments, equipment, and PPE supplies required for readiness.
2	Joint Order No. A/145, A/57, and A/37 of the Minister of Health, the Minister of Defense, and the Minister of Justice and Home Affairs, dated February 28, 2020	Enhanced capacity for COVID-19 patient care. 570 beds at Central Military Hospital were mobilized to provide medical care to patients with coronavirus infection (COVID-19), and the hospital services were transferred to the General Hospital for Civil Servants, the General Hospital, the National Center for Treatment and Research, and the district hospital.
3	HM Order No. A/222, dated April 6, 2020,	Measures to protect mothers and child. During COVID-19 infections, coordinated the provision of medical care to pregnant women and children in isolation shelters and homes.
4	HM Order No. A/278, dated May 1, 2020,	Approved temporary guidelines for the provision of medical care to detainees under COVID-19 isolation.
5	HM Order No. A/465, dated October 13, 2020	Re-organization of health facilities. Surgical care previously provided by the Central Military Hospital was transferred to the Mongolian-Japanese Hospital of the National University of Medical Sciences.
6	HM Order No. A/516, dated November 11, 2020	Ensuring health facility preparedness during public health emergency. Provides directions for medical care in the event of a domestic outbreak or quarantine, and for the preparation of hospital beds, and for the establishment of medical supplies and others necessities.
7	HM Order No. A/133, dated March 7, 2021	Guidelines to arrange on-line consultations and antenatal care.
8	HM Order No. A/257, dated April 28, 2021	Management of hospital beds during COVID-19. In all districts of Ulaanbaatar city, hospital beds were provided: 3,969 for COVID-19 patients, 238 for COVID-19 intensive care, 106 for maternity, 82 for pediatrics, 197 for emergency surgery, 152 for persons with disabilities, and 150 for other specialty services.
9	HM Order No. A/386, dated June 18, 2021	Mobilization of additional hospital beds for COVID-19: in Ulaanbaatar 945 private hospital beds, 3,737 in public specialty hospitals, 1,460 in university dormitories and sanatoriums, 137 in general hospitals in three remote districts, 270 in Orkhon province, and 175 in Tuv province.
10	HM Order No. A/196, dated April 11, 2021	Measures to ensure the readiness of intensive care units for COVID-19 cases. It approved the schedule of services by the medical institutions providing inpatient care and medical care to COVID-19-infected people.  Some of the departments of the NCCD were reorganized into the COVID Department. The general health care services of the secondary and tertiary hospitals were transferred to other hospitals in order to increase the number of COVID beds (Batbayar O 2022).

Private hospitals have been involved in the COVID-19 response since November 2020. In June 2021, 85.94 percent of the total beds approved by HM Order A/386 for the treatment of COVID-19 were public and 14.05 percent were private. Since April 2021, HM Order A/257 has involved private accredited health facilities (Astral Med, Intermed, Achantan) for the isolation, diagnosis, and treatment of coronavirus infection.

“...Private health facilities have not been sufficiently involved, and labor force information was obtained from private hospitals at time and during bed mobilization and stockpiling. Now private hospitals are working in COVID-19, about 30 people from small private hospitals have been working on immunization as a human resource. Generally, the private sector tends to work without saying they will not work (not complaining) ...” (City Health Department, Deputy Director)

Interviewed respondents concluded that the private sector was less involved in the diagnosis and treatment of infections during the early stages of the pandemic, and that some were proactive, but that the government failed to manage their involvement. However, the decision to finance health insurance has increased the involvement of some private hospitals in the admission and isolation of COVID-19 patients.

“...The private sector was not allowed conditionally to participate. They wanted to do something for free, but they couldn't do it, and when there was a loss, they couldn't afford to hire a team, mobilize a doctor, or carry gas. There was a risk of losing your job if you didn't do it yourself. This happened when the budget organization was working in the red zone where it was paid. No costs were incurred in the private sector. Intermed has twice sent cars and teams as part of its social responsibility. Recently, the HIF has decided to pay for health services in COVID-19 infections, but it is being paid to a state hospital...” (Director in charge of hospital quality, private hospital)

### Key findings

- Although the policy frameworks were clear with regard to the roles of primary health care providers, they have been involved in COVID-19 response largely from November 2020 onward. As the pandemic surged in March 2021, the PHC providers have played an important role in the management of asymptomatic, mild, and moderate cases of COVID-19.
- COVID-19 care had initially been concentrated at a few designated institutions; however, when COVID-19 surged, other facilities were included. In particular, the policy for private hospital engagement remained unclear and neglected until much later. Nevertheless, the private sector has been participating in the isolation, diagnosis, and treatment of COVID-19 patients, accounting for about 13 percent of the total COVID-19 beds. In addition, the decision to allocate funds from the HIF to health care and vaccination increased the involvement of the FHCs and the private sector in response to COVID-19.

### 4.2.3 Human Resources for Health

Since January 2020, the National Center for Health Development has been acting as the main body for human resource planning and mobilization of the required medical staff. In the beginning, there was a requirement to collect information about available human resources—including resident doctors, retired medical personnel, graduate students, and currently working medical specialists—and to develop a recruitment plan for management of COVID-19 cases. The recruitment plan was developed and included information on about 1,824 resident doctors, 1,340 medical students, and retired physicians and nurses (MOH 2020b). As of March 2020, a total of 1,842 resident physicians were trained in 20 training institutions nationwide, and 1,489 students were trained seven times repeatedly for COVID-19 care management.

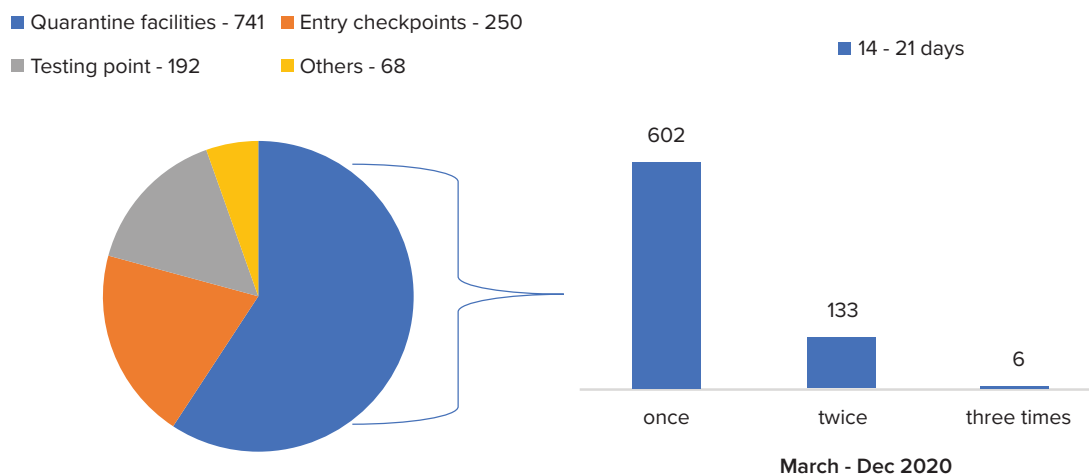


Vaccine delivery process in a nomadic household

About 190 resident doctors were mobilized to the six exit and entry checkpoints of Ulaanbaatar city to perform epidemiological assessment and fever measurement, from February to March 2020. From March to December 2020, 741 mobilized resident physicians were assigned to more than 40 quarantine facilities (Figure 13) (HDC 2020).

The MOH announced that by October 2021, 694 more resident doctors were recruited to join the service teams of surveillance, emergency response, vaccination, quarantine, home isolation, and family group practice daily activities (MOH 2021d). In total, 5,521 resident doctors were recruited for COVID-19 health care service provision (HDC 2021b).

**Figure 13:** Mobilization of Resident Doctors



The job description of resident doctors was approved by a health minister order (Health Minister Order 2020c). As stated in Article 3.6 on the job description, the resident doctor will be mobilized in the event of a public disaster, outbreak of infectious disease, emergency, or disaster preparedness with a wage equal to the 4th grade of public service employment. According to Article 47 of the Health Law, in the 2021 budget, about 18 billion MNT was allocated for regular salaries of resident doctors, and resident doctors have been paid (703,623 MNT) at the first level of the 4th grade of public service employment (Health Minister Order 2020c).

The Disaster Protection Law and Health Law has established the legal environment for supporting and providing incentives to civil servants, emergency officers, and health care personnel working in disaster areas or with infectious disease outbreaks. This includes raising the salary during the mobilized period and providing monetary compensation to the family in case of death or disability. In addition, the COVID-19 Law contains more social and financial support provisions for the health care personnel. For example, the Law provides for funding for personal protective equipment, information, education, psychological safety standards, and monetary compensation if a person was infected while working. Therefore, the decision was made to implement the following incentives:

- lower requirements for mortgage loans for health care personnel;
- a one-time monetary compensation equal to 5 million MNT;
- 1 million MNT per health care personnel working in the red zones of isolation;
- 500,000 MNT for each of the resident doctors; and
- 1 million MNT for each of the health personnel who get infected at work.

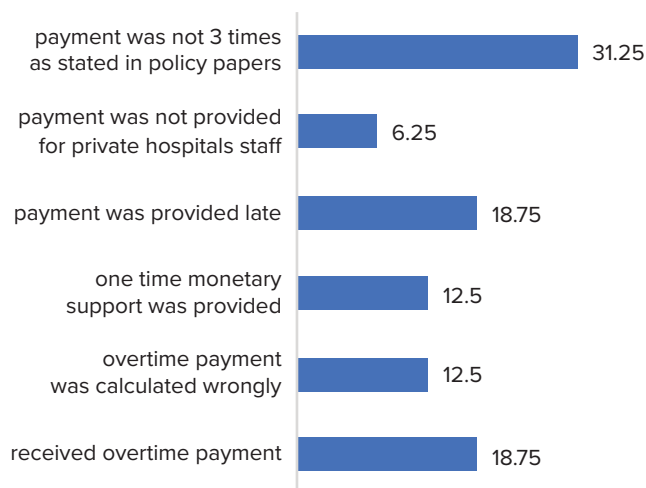
Focus group discussions with health workers were held to get their feedback. Respondents reported that the financial support and monetary provisions were delayed, not provided, or faced difficulties due to many bureaucratic procedures and other issues (Figure 14). In addition, private health care providers faced additional difficulties in obtaining the monetary support.

“...The money given was not calculated accordingly and used only the rate of overtime work. The salary fund is limited to provide monetary support to a large number of people, so it is explained that the money was adjusted to the salary fund...” (aimag hospital doctor)

“...A certain amount of overtime pay is provided, but it is not constant, not on a monthly basis, sometimes takes longer and 3 months payment was given at once...” (Epidemiologist, district emergency team)

“...There were several trained field epidemiologists, and they could be mobilized to work in the isolation areas, however, their salary and payment was not regulated, because they are from the private sector. There is law regulation to provide payment for working in the epicenter, however, it is not being implemented...” (Field epidemiologist)

**Figure 14: Overtime Payment and Monetary Support to Health Care Workers**



Participants in the FGDs further reported an increased workload, a short return period, the inability to take time off, family abandonment, and fatigue and burnout issues.

“...What is frustrating is that during this time, workload is 10 times higher than the normal period of time. The basic salary is 740,000 MNT and it is much lower than what we are doing. I feel burned out and depressed. Sometimes, think maybe I should change job and work in the retail trade sector...” (Tertiary hospital nurse)

According to a different study by Nyamsuren Ts, 87.5 percent of medical professionals and 93.8 percent of zoonotic disease center specialists reported increasing workload ( $p < 0.001$ ) (Nyamsuren et al. 2020). Also, 81.3 percent of zoonotic disease center specialists and 57.5 percent of medical professionals reported an increase in sudden job calls ( $p < 0.001$ ). The same study reported that 41.3 percent of participants had experienced burnout due to personal issues, 29.3 percent was client related, and 25.5 percent was work-related. Comparing gender-specific burnout at work, female employees were more likely to have burnout and be physically exhausted compared to the men ( $p < 0.05$ ).

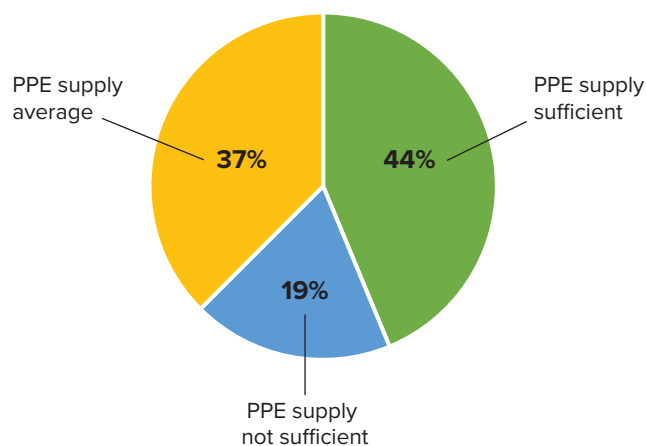
According to researcher Munkh, 49 (69.1 percent) of the health workers who participated in the survey were depressed, 84 (92.4 percent) were afraid of infection, 19 (34.8 percent) were affected by strong stressors, and 23 (51.5 percent) were anxious (Munkh et al. 2021).

During individual interviews with key informants and respondents in group discussions it was noted that the supply of medicine and PPEs was insufficient (Figure 15) and of low quality.

“...Provision is coming from the Ministry of Health, and it will be distributed through our Health Department. At that time, it was very strange that motorcycling goggles came instead of disposable goggles...” ( aimag, FGPs doctor)

“...during the pick period, the gloves were not supplied enough, so we changed only one glove while collecting the samples. It means, we will use 50 pairs for 100 people ' sample collection...” (aimag, epidemiologist)

**Figure 15:** Views of Health care workers on the Supply PPEs



In addition, respondents raised concerns related to lack of mental health support, including psychological training and counseling for doctors and nurses to deal with stress and burnout, as well as fears due to COVID-19.

“...The infected one among us was crying and did not talk with us for 3 days, how she could be in a good mood, and the hospital management called the psychiatrist to talk with her. From then we have started to have meetings and training on mental health...” (Nurse, department of infectious disease, aimag)

Almost all the focus group discussion participants expressed that they had not been able to pay attention to their family members; many were afraid of spreading the infection to their families (68.75 percent), lacked professional training in infection management (62.5 percent), and had increased workloads (50 percent). Also, many participants said they did not have psychological training and counseling on coping with the pandemic (37.5 percent), wanted to quit their jobs (18.75 percent), and applied for resigning from their jobs (6.25 percent) (Figure 16).

**Figure 16:** Common Problems Among the Health Care Personnel

A survey (E.Munkh et.al, National Center for Mental Health) was conducted among 435 health care professionals of 17 Ulaanbaatar city hospitals managing the COVID-19 cases, and 9.1 percent of them were experiencing burnout symptoms

(Munkh et al. 2021). Ulaanbaatar Health Department reported 167 doctors (2.3 percent), 146 nurses (3.6 percent), and 195 (1.7 percent) other non-medical personnel resigned voluntarily in 2021 (Ergelt 2021).

#### Key findings

- Human resource policy was revised to ensure effective response to COVID-19. Resident doctors, graduate students of medical universities, and retired personnel were mobilized for the activities of surveillance, testing, and mitigation processes under supervision of the National Center for Health Development.
- The government, backed by a supportive legal environment, implemented several different policies to incentivize and support health care providers.
- However, there were shortcomings in the implementation of these benefits and incentives, including delays in wage increases, underpayments, and lack of regulation for private sector mobilization.
- At the beginning of the pandemic, workplace safety was not adequately ensured, and personal protective supplies and equipment were not sufficiently provided and were of low quality.
- Widespread issues such as depression and burnout were reported among health care personnel.



#### 4.2.4 Ensuring access to essential health services

Since the declaration of the COVID-19 pandemic by the WHO, the MOH has also focused on ensuring that access to other health services was not compromised, to the extent possible (framework of a health minister assignment (Health Minister Assignment 2020a). Furthermore, in the event of a domestic outbreak and quarantine, the health minister order (Health Minister Order 2020d) provides for the supply of essential services regardless of residency, without interruption, and for the use of electronic and telemedicine by specialized hospitals and referral health organizations.

Provision of maternal care, STI and HIV/AIDS care, and TB care have been prioritized over the others during the pandemic. In addition, noncommunicable

diseases such as diabetes and cancer have also been prioritized. However, despite the many regulations related to maternal health services, maternal mortality increased during the pandemic, due to poor coverage of antenatal care in both rural and urban areas (Khishgee S 2021) and COVID-19 infection itself. Since June 2021, COVID-19 vaccination among pregnant women greatly contributed to the reduction in the complications and mortality rate (Altantuya Sh, et.al 2022). There was a sharp increase in the maternal mortality rate (79 per 100,000 live births in the first half of 2021, compared to the same period in 2020 (40 per 100,000 live births). However, it significantly decreased thereafter, with the first six months of 2022, recording 48.7 per 100,000 live births.

**Table 17:** Maternal, Infant, and Child Mortality, as of the First Six Months of the Selected Year

Maternal, under-five and Infant mortality rates	2018 Jan-Jun	2019 Jan-Jun	2020 Jan-Jun	2021 Jan-Jun	2022 Jan-Jun
Maternal mortality rate per 100,000 live births	31	23	40	79	48.7
Under-five mortality rate per 1,000 live births	17	16	15	13	16.8
Infant mortality rate per 1,000 live births	14	14	12	11	8.4
Neonatal mortality rate per 1,000 live births	9	8	8	8	12.4

Source: National Statistical Office (NSO) of Mongolia, *Monthly Bulletin of Statistics, June 2021. Semi-annual Report, Health Development of Mongolia, June 2022*



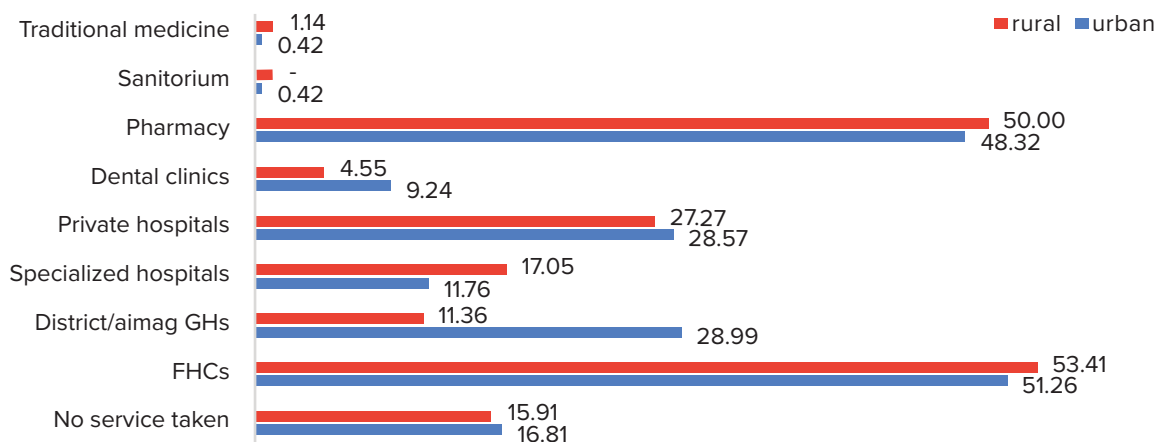
## RESPONSE

A health minister order provides for 148 types of health services within 22 packages of essential services for public health and medical care services (medical care is divided into three categories: medical care, referral care, and others) (Health Minister Order 2020e). For this case study, a pulse survey of health care managers, following WHO methodology, was conducted. The health care managers had poor knowledge on the legal environment for the essential service package and its update in relation to COVID-19. Almost half (42.9 percent) of the participants did not have correct knowledge about the package, whereas only 22.9 percent of them knew the exact regulation on the essential service package, which was approved before COVID-19. Just over one-fourth (25.7 percent) of the respondents did not know whether it was updated after the pandemic. Only

managers also stated that management was partially disrupted in the following service areas: chronic diseases (60 percent), dental services (51.4 percent), palliative care (42.9 percent), rehabilitation services (48.6 percent), and TB case detection and treatment (45.7 percent).

Respondents to the online questionnaire indicated that primary health care facilities and pharmacies were the main points of provision of medical services (Figure 17). Only 16.6 percent of the surveyed respondents did not receive any health care services during COVID-19. Aimag residents received services from FHCs (53.4 percent) and pharmacies (50 percent), whereas Ulaanbaatar residents received services from FHCs (51.2 percent), district hospitals (29.0 percent), and pharmacies (48.3 percent).

**Figure 17:** Medical Services Received During COVID-19 Pandemic, as Reported by Respondents by Location (Percent)



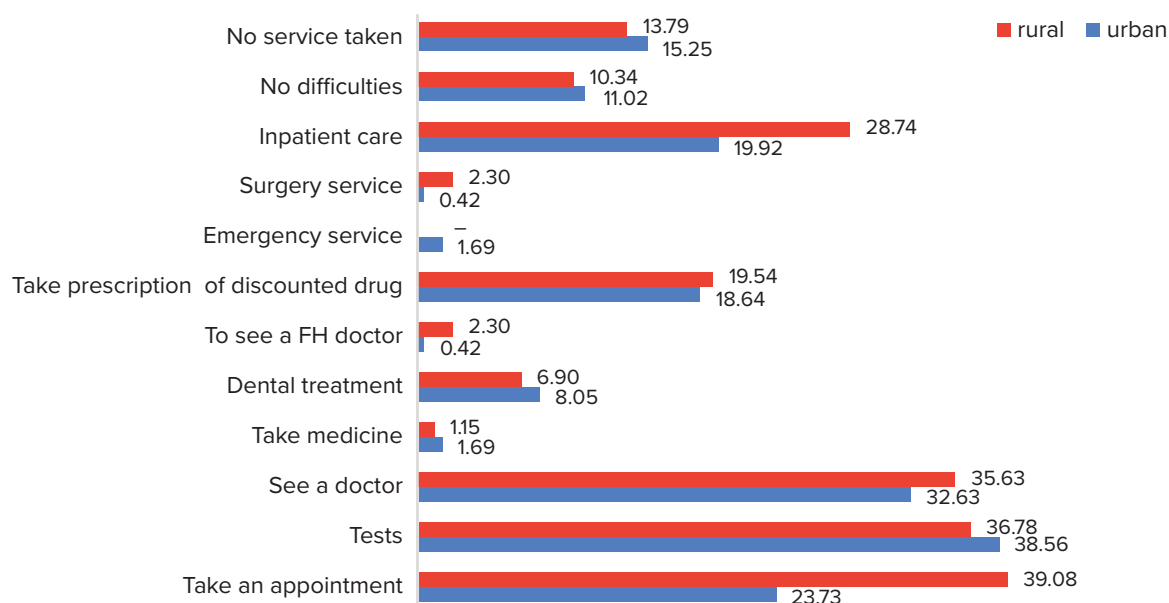


Vaccine deployment for Tuva people in the wild forest area of Tsagaan nuur soum, Khuvsgul province

Only 10.8 percent of the respondents (11.0 percent in Ulaanbaatar and 10.3 percent in rural areas) said there were no barriers for accessing health care during the pandemic (Figure 18). The remaining respondents had some kind of difficulty getting medical services. For instance, the biggest challenges

were getting an appointment (rural areas, 39.8 percent; Ulaanbaatar, 23.7 percent), getting tested and diagnosed (rural areas, 36.78 percent; urban areas, 38.56 percent), and seeing the doctor (rural areas, 35.63 percent; urban areas, 32.6 percent).

**Figure 18:** Difficulties in Receiving Medical Services During COVID-19, by Type of Health Care Institution, Location





Emergency safety boxes of soum health center

Thirty nine percent of all respondents had an underlying or chronic illness that required regular checkups, mostly cardiovascular, renal, urinary tract, and gastrointestinal disorders. Among them, 76.3 percent said they had problems in getting regular checkups during a COVID-19 infection. Sixty-one percent of the respondents had no history of chronic diseases, and 54.5 percent had difficulty in getting medical checkups.

#### Key findings

- The health sector has followed a wide range of policy guidelines to ensure that access to and quality of essential services are not compromised during the COVID-19 pandemic. Maternal and child health care was prioritized. However, maternal mortality rose sharply in the first half of 2021. There have been disruptions, limitations, and closures in provision of medical services in urban and rural areas not only for maternal services but also for other essential care. COVID-19-related maternal mortality decreased after commencement of vaccination of pregnant women. Service providers and patients both felt the dissatisfaction in discontinuity of the essential services.

## 4.3 Public's Response

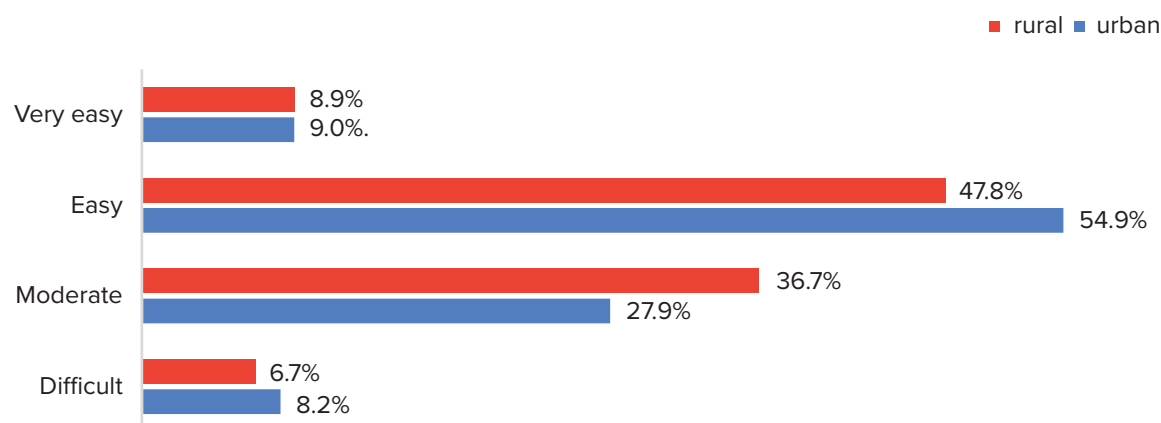
### 4.3.1 Social Distancing, Personal Hygiene, and Social Norms

The COVID-19 Law and the Health Law include the responsibilities and rules to be followed by individuals to prevent the spread of viruses, including quarantining and communicating information to relevant authorities, so as to prevent spread of infection (43.2.5). Mongolia implemented a combination of all three public health measures (social distancing, mask wearing, and hand washing) in all settings for which the related executive order was first issued by health minister assignment (Health Minister Assignment 2020b). All staff and patients in health care facilities were required to wear masks. Since then, the MOH has been providing recommendations on mask wearing, social distancing, and hand washing through its daily notifications (MOH 2020c).

Moreover, the SEC conducted several campaigns to intensify the implementation of nonpharmaceutical interventions (NPIs) among the population. In April and October of 2020, nationwide “Let’s wear masks” campaigns were launched (SEC 2020c and SEC 2020d).

The SEC approved a regulation for organizing prevention activities during COVID-19 infection. According to this regulation, all kinds of entities, service facilities, and public transport services are required to provide an environment for the people to follow hygienic practices and use NPIs, and the GASI must conduct routine monitoring of the implementation of this regulation among the facilities. Therefore, the GASI has been conducting monthly inspections to monitor and identify failures and provide recommendations for improvement, which enables a supportive environment for the people to implement NPIs. In accordance with Article 5.13 of the Law on Violations, a fine of 150,000 MNT is imposed for visiting a public place without wearing a mask (GASI 2021).

Public response and adherence to these NPIs has been sufficient (*Figure 19*). The online questionnaire conducted among the patient group found that about 50 percent of the participants indicated that it was easy to follow the guidelines for self-protection against COVID-19 infection.

**Figure 19:** Implementation of the Recommendations on How to Protect Yourself From COVID-19

Another study found that knowledge about the COVID-19 prevention activities was quite good. For instance, a majority of respondents knew about hand washing (94 percent), wearing masks (93 percent), avoiding direct contact (97 percent), and not attending public events (96 percent). Four out of every five people were eager to get vaccinated voluntarily (WB 2021).

In 2020 and 2021, a baseline study and a follow-up study, respectively, were conducted by Batbaatar et al. In the baseline study, most of the participants said that wearing a mask (93.9 percent), keeping distance between people (81.1 percent), and washing their hands with soap for at least 20 seconds (79.1 percent) would prevent infection. According to the follow-up survey findings, these percentages had decreased for wearing a mask (75.1 percent), keeping distance between people (68.8 percent), and washing hands with soap for at least 20 seconds (64.9 percent); but 83.9 percent of respondents were vaccinated. More than 70 percent of the surveyed participants reported that they had been concerned about rising food and commodity prices (80.5 percent), reduction of family income (75.9 percent), school delays (73.5 percent), and post-COVID-19 health consequences (72.1 percent) (Batbaatar et al. 2021).

By April 2021, most people showed willingness to avoid public places, with only 22 percent of the respondents not being able to do so. Many of them had to go to public spaces for work (59 percent), shopping (38 percent), and visiting health care facilities (13 percent) and pharmacies (6 percent). Most of them managed to keep distance (73 percent),

sanitize/wash hands (89 percent), and wear masks (98 percent) while in public. Distance keeping among the urban population—especially in Ulaanbaatar—has become less frequently practiced, whereas mask wearing remains commonly practiced (NSO and UNICEF 2021a).

Interview participants noted that mask wearing had become a habit, but distance keeping practice was weak.

“...I think, when the first domestic infection occurred, people wore masks well therefore, and the infection did not spread. In relation to COVID-19, people’s practice had been changed. Last summer, wearing masks became less common among the people, then it improved when there was a rise in infection cases. At first, there was a poor understanding of distance keeping, but now people are learning. The hand shaking practice is becoming less popular these days...” (Officer, MOH)

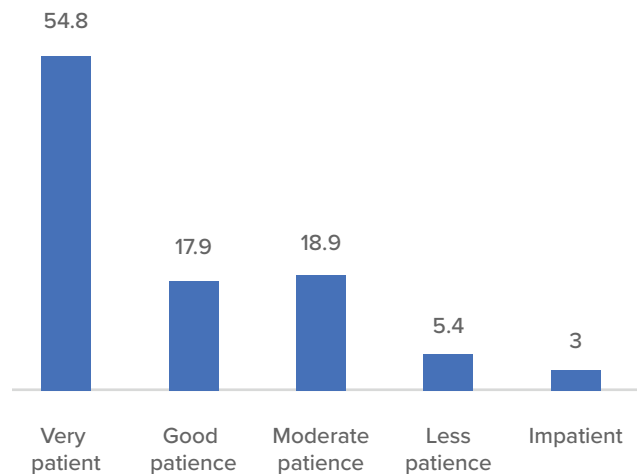
“...the mask is worn relatively well, there is not enough distance keeping between the clients, when the regimen is weakened, people with 2 doses of the vaccine do not practice mask wearing and distance keeping...” (Pharmacy personnel)

**Key findings**

- Mongolia, similar to other countries, has been implementing WHO public health guidelines for COVID-19 prevention, and the people have followed hygienic practices and used NPIs as mandated.
- Public administration mechanisms and measures helped ensure that citizens and businesses continuously follow NPIs, including hand washing, mask wearing, and distance keeping.
- In addition, all public and private organizations and public service places were required to equip the environment for measuring body temperature, post warnings to wear masks, and provide hand sanitation methods for clients and people.
- The SEC and MOH disseminated information, guidelines, and recommendations on mask wearing, distance keeping, and hand sanitation through different channels of media and social media, and in public places.

By the end of 2020, another study conducted during the lockdown revealed that 54.8 percent of the population was patient with the lockdowns (*Figure 20*), with 11.5 percent saying that lockdown had a negative impact on work and life. Full-time employees were more tolerant compared to students and the self-employed ( $p < 0.001$ ) (Nyamsuren et al. 2020).

**Figure 20:** Patience for Lockdown, by Participants, as of End of 2020



Source: Nyamsuren et al. “Survey of Public Perception, Psychology, Behavior—2020,” Department of Health, Social Work and Social Sciences, Public Health School, MNUMS

**4.3.2 Trust in Government and Social Institutions**

The effectiveness of the response to the epidemic has depended on a public trust in government and the people’s compliance with necessary public health measures. Throughout the pandemic, the government has been making continuous efforts to mobilize public trust in government. However, it has not been easy.

This case study reviewed surveys conducted in relation to public response in implementation of quarantine and isolation regimes, trust in government and public institutions, and compliance with use of NPIs. When the first infection was reported, positive attitude to or trust in medical experts was noted among most of the people, but they were also anxious, fearful, and resentful. They expected that the health sector, the WHO, the MOH, local public health organizations, public hospitals, and large private hospitals would be able to take effective action during each outbreak of an infection (Nyamsuren et al. 2020). Most participants assessed the government’s response to COVID-19 from January to June 2020 as good and reasonable (Batbaatar et al. 2021).

As of June 2021, there is a tendency for citizens to criticize the government’s actions, saying that the infection response measures are ineffective and the government does not make timely decisions.

“...After more than a year of fuss, the result is zero...” (Manager of private supply company)

“...The several times of curfews, which began in November 2020, ended with the incompetence and inability of making cohesive decisions by the government, the SEC, and the Ulaanbaatar EC and pushing issues to each other...” (Manager of NGO)

“...Restrictions are not appropriate because it is based on the wrong assumptions that the recent increase in the number of infections was caused by restaurants. Making the crowd organize election campaigns and award, medal providing ceremonies all contributed to the spread of the disease. All those activities were made by the state decisions. But who will be responsible?...” (Doctor at private hospital)



**Key findings**

- At the beginning of the pandemic, citizens were more confident in the government’s actions taken in early 2020. In particular, they believed in wearing masks, lockdown, quarantine, and restricting movement.
- However, as the pandemic continued and the duration of national emergency alerts was extended, public confidence and trust weakened.

**4.4 Vaccination**

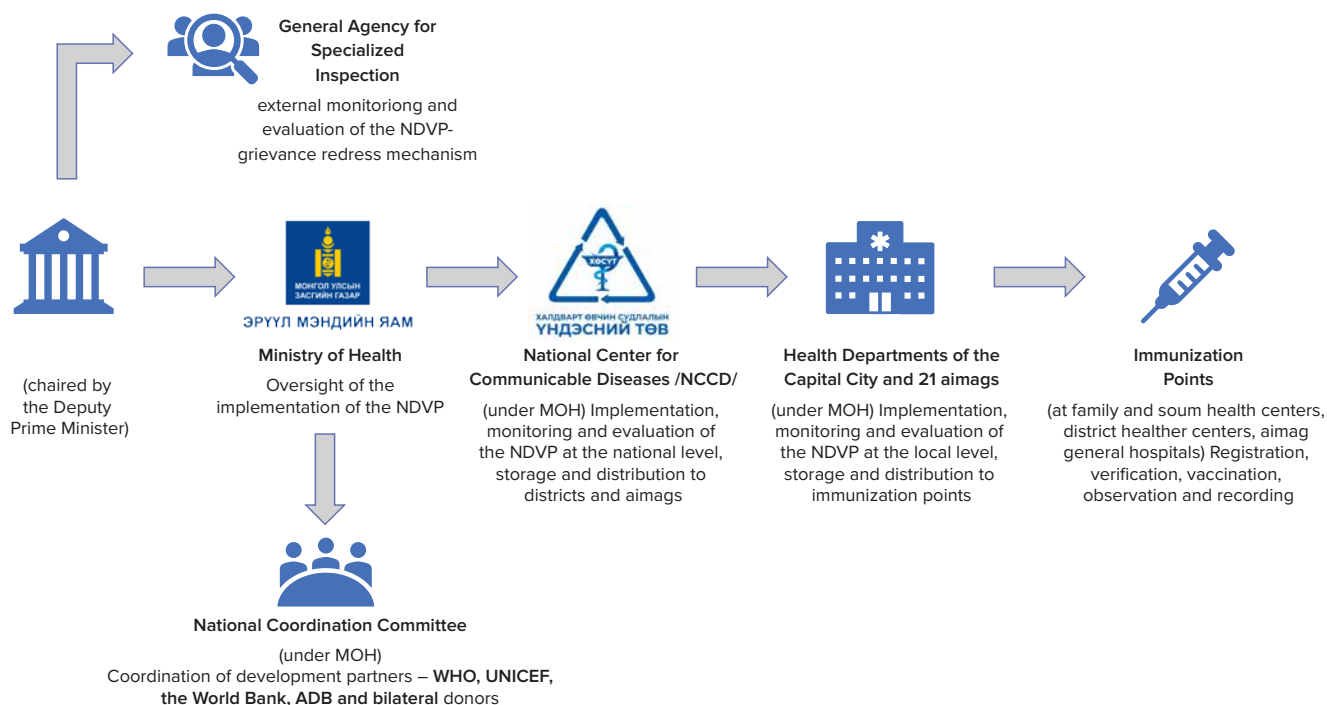
**4.4.1 Procurement, Access, Deployment-Distribution**

The COVID-19 National Deployment and Vaccination Plan (NDVP) was approved by No. 05 Order of the

State Emergency Commission Chair on January 11, 2021. The plan was aimed at implementing COVID-19 immunization deployment to reduce morbidity and mortality and overcome challenges with minimal loss. It identifies target groups of the population and their prioritization based on their respective risks and need for vaccination, and it gives guidance on the main aspects of the management, implementation, and monitoring and evaluation of the vaccination program (Figure 21). The NDVP outlines the division of responsibility between different government agencies for delivery, transportation, and storage of vaccines, and implementation of the COVID-19 vaccination program.

After the approval of the NDVP, the government issued several regulations to clarify related standard operating procedures and activities to ensure an effective deployment of COVID-19 vaccination (Table 18).

**Figure 21:** Organizational Structure of National Deployment and Vaccination Plan Implementation





**Table 18:** Government Operational Guidelines Approved to Regulate COVID-19 Vaccination

	Resolutions	Purpose
1	HM Order No. 06 , dated January 5, 2021	Approved COVID-19 vaccine registration, quality, and safety guidelines.
2	SEC Order No. 07, dated January 11, 2021	Approved the composition, rights, and responsibilities of the National Regulatory Commission.
3	HM Order No. A/108, dated March 9, 2021	Regulations have been approved to ensure the availability of vaccination points against COVID-19 infection.
4	HM Order No. A/368, dated June 15, 2021 HM Order No. A/391, dated June 21, 2021 HM Order No. A/404, dated June 23, 2021	Procedures, schedules, and electronic records of different vaccines against COVID-19 have been provided for immunization of the target group.

In terms of supply of COVID-19 vaccines, the government of Mongolia was proactive in getting commercial and noncommercial arrangements with development partners, potential suppliers, and companies. The government sought assistance from the World Bank, Asian Development Bank (ADB), UNICEF, and WHO. Mongolia secured participation in the COVID-19 Vaccines Global Access (COVAX)<sup>7</sup> facility on June 16, 2020, and the Board of Directors of the Vaccine Federation identified Mongolia as a premarket participant.

In December 2020, Mongolia submitted a request for vaccines to the COVAX program and stated that it would use more than one type of vaccine in the national response. On February 11, 2021, the World Bank approved US\$50.7 million in additional financing to support Mongolia's vaccine procurement and deployment. The ADB committed about US\$40.0 million from its Asia Pacific Vaccine Access Facility to finance the purchase of vaccines through bilateral agreements directly from manufacturers. Further, the government continuously engaged in bilateral dialogue with countries and manufacturers to ensure speedy procurement of vaccines and to avoid forecasted delays in procurement through COVAX because of limited access to global vaccine supplies.

In addition, the government encouraged and called for support of the private sector in importing safe and effective vaccines against COVID-19. For instance, Emlimpex, the private wholesaler of medicines and medical devices, imported 40,000 doses of Sputnik V vaccine from Russia, and a few other private wholesalers applied for registration of vaccines against COVID-19 (*Table 19*).

By June 2021, the National Human Medicine Council of the MOH approved the following vaccines for immunization of the wider population in Mongolia: (i) Pfizer-BioNTech COVID-19 vaccine; (ii) Moderna COVID-19 vaccine; (iii) AZD1222 vaccine, licensed to and manufactured by SK Bioscience Co. Ltd., of Korea; (iv) Covishield, the AstraZeneca vaccine licensed and manufactured by the Serum Institute of India Pvt. Ltd.; (v) Sputnik V, produced by the Gamaleya Institute, of Russia; and (vi) Vero cell, produced by Sinopharm, of China.

7. COVAX Facility y: a partnership between WHO, Gavi the Vaccine Alliance, and the Coalition for Epidemic Preparedness Innovations (CEPI)

**Table 19:** Vaccine Supply Situation

	Timeliness	Financier	Types of financing	Types of vaccine and size
1	February 21	India	Grant	150 thousand doses, AstraZeneca
2	February 22	Government of China, People's Liberation Army	Grant	300 thousand doses, Vero cell
3	February 22	Russian Federation	Grant	1 million doses, Sputnik-V
4	February 27	Russian Federation	Trading	10 thousand doses, SputnikV
5	March 10	Japanese government	Grant	2,7 million doses, <sup>a</sup> Pfizer
6	March 12	COVAX program	International vaccine supply	14400 doses, AstraZeneca
8	March 24	COVAX program	International vaccine supply	25,740 doses, Pfizer
9	April 2	Chinese government	Trading	300 thousand doses, Vero cell
10	More than 10 times	China	Trading	More than 4 million doses
11		Emlpex, the private wholesaler of medicines and medical devices	Trading	40 thousand doses, Спутник V

Source: <https://news.mn/r/2425391/>, April 26, 2021

a - [https://www.unicef.org/mongolia/mn/press\\_release/japan-mongolia-project-signing-ceremony](https://www.unicef.org/mongolia/mn/press_release/japan-mongolia-project-signing-ceremony), August 10, 2021,

b - <https://montsame.mn/mn/read/262777>, May 7, 2021

As of the end of May 2022, a total of 8,317,750 doses of vaccine have been received and 6,030,396 doses have been distributed to aimags and district health care facilities, as well as to the NCCD (NCCD 2022a).

In a ranking of COVID-19 vaccination efforts, only after four months of starting, Mongolia was placed 15th out of 146 countries in the world. Some attributed this achievement to geographical and political factors favorable to Mongolia. For instance, according to Theresa Fallon, Director of the Center for Russian, European and Asian Studies in Brussels, “Mongolia is at the center of Russia and China. Using its status as a geopolitical player, it has been able to buy vaccines in a brief period alongside rich countries. Mongolians are showing their ability to play among their big neighbors and increase their efficiency (Montsame news 2021b).

Respondents in various interviews conducted during this review also said that they have been actively involved in vaccination, that doctors and

specialists have been well trained, and that there is some negative information about vaccines on social media.

“...Vaccination is going well, and we want to pay attention to those who are contraindicated. Unemployed people who receive care, are in social assistance groups, and are at home show low awareness of the coverage, and if they are not vaccinated against their care, their coverage has increased, but the working population is vaccinated unless otherwise contraindicated...” (Doctor of private hospital)

The interviewees expressed their gratitude for the fact that Mongolia was the first country to import the vaccine among the 92 countries of COVAX.<sup>8</sup>

“...Vaccination, Organization and citizen’s participation is good...” (Deputy Director, district hospital)

Based on the gap assessment of existing storage and cold chain capacity conducted by the MOH

8. The Gavi Advance Market Commitment for COVID-19 Vaccines (Gavi Covax AMC) supports high-risk populations in low-income countries (LICs) and lower middle-income countries (LMICs), as part of the new COVAX Facility, covering 92 countries.

with support from the WHO and UNICEF, cold chain storage capacity for COVID-19 vaccines at positive temperatures (20C to 80C) is sufficient, but the ultra-cold chain storage required for the Pfizer vaccine, at –700C temperatures, is inadequate, including local production capacity for dry-ice and cold chain facilities for ultra-cold chain. The WB project and Japanese grant provided support to ensure that the country is ready to introduce and deploy the vaccine.

The NCCD launched the first convoy of vehicles carrying vaccines to start immunization against coronavirus infection in rural areas on May 2, 2021. The prime minister and the minister of health participated in the distribution of vaccines to 21 aimags of Mongolia. Mr. L. Oyun-Erdene, Prime Minister, said at the launching that “We urge local people to be actively involved in vaccination. Most importantly, we are working with the private sector to address the issue of cold chains in the local area. We plan to vaccinate local people with the first dose of coronavirus by June 1 and the second dose is planned nationwide on July 1, it will be possible to counteract the fourth wave of Asia. In this way, we can reduce the number of cases and protect the lives and health of our citizens. The government will work to ensure that the supply of vaccines is not disrupted.”

Although there is a well-structured immunization system extending from the NCCD to soum-level health centers with the cold chain station for dealing with a mass immunization process, there have been challenges with stocking, cold chain equipment availability, quality, and waste management. There are insufficient waste autoclaves available in the soum health centers. As the volume of health care waste increased due to the COVID-19 pandemic, almost all of the aimags’ health facilities faced difficulties in ensuring effective and timely waste disposal.

The General Agency of Specialized Inspection (GASI) and City Health Authority (CHA) conducted a rapid assessment of the health care waste management process during the COVID-19 vaccination process. The assessment revealed that there is need for improving organization of the immunization stations (71.4 percent), and poor condition of hand hygiene (83.5 percent), cleaning, and disinfection (74.8 percent) of the health care facilities. Supply and usage of PPEs by the immunization team, injection safety compliance, and waste disposal were adequate at 85 percent of facilities. Destruction of 31,563 doses was necessary

due to improper storage, lack of labeling, loss of package integrity, and expiry after opening (Sunchin S et al. 2021).

In August 2021, a completely equipped Central Vaccine Storage was established with funding provided by the WB project and a Japanese grant, managed by UNICEF. The equipment set included 716 cold chain vaccine refrigerators, 74 freezers, 7 ultra-cold freezers, 4 cold rooms, 6 freezers, 580 cold boxes, and 2,400 vaccine transporters. Digitalization of the cold chain and application of a solar energy source to the Central Vaccine Storage is expected in coming years.

“...The advantage of the Mongolian vaccination campaign was giving people the choice of a variety of vaccine brands and a well-structured and stable immunization system in Mongolia. Those are allowing better vaccination in the remote area of Mongolia...” (WHO official)

Although the road to good vaccination coverage was not smooth, as of June 2022, 90.7 percent of the target population had the full dose of the vaccine.

#### Key findings

- The adoption of the COVID-19 NDVP identified a comprehensive set of vaccination measures and ensured intersectoral cooperation.
- The government paid special attention to vaccination and successfully concluded agreements for vaccination through the state budget, projects, and programs of international organizations. The government established sufficient stock of the vaccines.
- Mongolia’s joining the COVAX program contributed to increased vaccine coverage of the population..
- There were some problems and challenges with the vaccination process, including delays in the second dose of the vaccine and problems with stocking, human resources, cold chain equipment availability, quality, and waste management. These challenges and difficulties were reduced through unified coordination across different efforts.
- The building of the Central Vaccine storage and supply of cold chain equipment was an important support infrastructure for national vaccine deployment.

## 4.4.2 Coverage and Equity

As COVID-19 vaccines became available, Mongolia started to plan for vaccination as part of the COVID-19 mitigation strategy. The number of the people in urgent need of the vaccine was estimated by the NDVP. In Mongolia, priority was given to workers involved in essential public service delivery (frontline

health care workers, essential service providers) and those who would likely be hit hard by the infection, (the elderly, persons with disabilities, chronically sick patients, students, and residents in medical universities).

**Table 20:** Planned Situation of Target and Total Population

Target groups to be vaccinated	Population number and percentage of the total population	Vaccination commencement date
Employees of the government and private health care institutions	56,047 (1.7%)	February 23, 2021
Employees of the emergency response agency, police, specialized inspection, border protection agency, and all who are involved in immediate response to the COVID-19 pandemic	52,750 (1.6%)	February 23, 2021
Elderly ages 50 years and above	583,545 (17.7%)	March 15 in Ulaanbaatar, May 1, 2021, in aimags
Persons with disabilities, people with serious chronic diseases	230,781 (7%)	March 25, 2021
People with serious chronic diseases (cardiovascular disease, diabetes, lung ailments, high blood pressure, cancer), people with organ transplants, people on hemodialysis machine treatment	276,937 (8.4%)	March 25, 2021
Senior-year students of medical science universities, resident physicians, and voluntary workers deployed additionally	65,937 (2%)	February 23, 2021
Workers and employees of the business sectors of strategic importance	329,687 (10%)	February 23, 2021
Vulnerable groups, people living on income below national living standard	313,202 (9.5%)	March 25, 2021
Teachers of schools, universities, higher educational institutions	69,234 (2.1%)	March 15, 2021
<b>Total</b>	<b>1,978,120 (60%)</b>	

Source: Plan for Deploying and Vaccinating Against COVID-19. No. 05 Order of the Chair of the State Emergency Commission, dated January 11, 2021

With such a high COVID-19 vaccination coverage rate, Mongolia registered, for that period, the fastest vaccination rate, administering about 3,434 doses per 100,000 people daily (Reuters 2021).

As of June 2022, the vaccination coverage rate of the target population was 96.5 percent for the first dose and 92.4 percent for the second dose. Moreover, 53.4 percent of the target population had received the booster dose, which was initiated in August 2021 (NCCD 2022a).

A few months after the start of vaccination, the general population, in addition to the target groups, could also receive vaccination. Starting May 5, 2021, when more than half (54.6 percent) of the target group was vaccinated with the first dose and 25.8 percent had received the second dose, the government decided to provide 50,000 MNT in direct incentives to every person who received two full doses of the vaccine. As a result of this initiative, coverage with the second dose was doubled (*Table 21*).

**Table 21:** Population Coverage: Increase in Vaccination After 50,000 MNT Incentive

Timeline	Coverage by First dose	Coverage by Second dose
May 5, 2021	54.6%	25.8%
July 31, 2021	66.8%	60.9%

Source: Ministry of Health Daily press release

With such a high COVID-19 vaccination coverage rate, Mongolia registered, for that period, the fastest vaccination rate, administering about 3,434 doses per 100,000 people daily (Reuters 2021). During the organization of the vaccination process, the MOH announced its short-term objectives. For instance, in the beginning of August 2021, it estimated that citizens in Ulaanbaatar would be fully vaccinated by August 15, 2021, that rural people would be fully vaccinated by August 25, and that additional vaccine doses would be offered for adults by November 5, 2021 (Gereg 2021). Then the vaccination coverage rate reached 95.1 percent for the first dose and 89.2 percent for the second dose, by September 3, 2021, among the target population. Full dose coverage among the Ulaanbaatar people was 90.8 percent, and in aimags it was 79.3 percent. Administration of booster dose injections started on August 13, and the coverage rate reached 4.1 percent among both urban and rural people by the beginning of September (WHO 2021e). As of June 2022, the vaccination coverage rate for the target population was 96.5 percent for the first dose and 92.4 percent for the second. Moreover, 53.4 percent of the target population had received the booster dose, which began to be administered in August 2021.

The survey respondents often expressed differing opinions (*Table 22*) about the vaccination process; this was their first experience with mass immunization within the health sector.

**Table 22:** Pros and Cons of the Vaccination Process, Summarized from Key Informant Interviews

Advantages and positive outcomes	Weaknesses and challenges
<ul style="list-style-type: none"> <li>• Prime minister's appeal and leadership.</li> <li>• One of the first among 92 countries to prepare the vaccine procurement application materials and get the vaccine.</li> <li>• Planning and deployment of vaccination have been managed well.</li> <li>• Citizens' willingness and coverage are high.</li> <li>• Plan and intention to cover the entire population.</li> <li>• PHC doctors were involved and contributed well to the vaccination process.</li> <li>• The vaccine supply was sufficient.</li> <li>• Timely establishment of Central Vaccine Storage and cold chain supply.</li> <li>• Urgent and rapid training for national specialists and their continuous training.</li> <li>• On the whole, the WHO reported that vaccine deployment effectiveness management meets the normal level of the WHO's recommended standard.</li> </ul>	<ul style="list-style-type: none"> <li>• Reinfection cases have been reported even after completion of two doses.</li> <li>• In Ulaanbaatar, overly centralized vaccination points created public overcrowding and longer queues.</li> <li>• Due to external causes, there were temporary interruptions in vaccine supply, which caused disputes and misunderstandings among health workers and the population.</li> <li>• When the private sector suggested supplying a vaccine, the MOH rejected the vaccine due to its not being registered by the WHO. However, the next minister approved it later.</li> <li>• People felt stress and anxiety due to reinfection even after two doses.</li> <li>• Vaccine hesitancy is gradually increasing, especially after the fourth wave of Omicron.</li> <li>• There is only one vaccinator nurse working at the sublevel, which has created a burden and strain on human resources.</li> </ul>

The choice of the different manufacturers' vaccines was limited in the beginning. AstraZeneca's vaccine became available first and was provided to frontline and essential public service workers. The next available vaccine was Vero cell from a Chinese manufacturer, followed by Sputnik V from Russia and the Pfizer vaccines. Generally, citizens were informed that the best vaccine was the first vaccine available.

### Elderly

In January 2021, a plan was made to vaccinate 583,545 persons over 50 years of age (17.7 percent of the target population). The elderly with comorbidities or chronic diseases were covered by the vaccination in the first round, and other people over 50 were covered in parallel or after them. By July 19, 2021, 91.7 percent of those over 50 had been vaccinated with two doses.

### Children and women

Vaccination of pregnant women started on June 16, 2021, and the coverage reached 8.5 percent by July 19, 2021. Following Health Minister Order No. A/368, the target population included children ages 16 through 17 with parental consent, pregnant women, breast-feeding mothers, and citizens who had declined earlier for different reasons. Vaccination with the Pfizer vaccine for children ages 16 through 17 started on June 16, 2021, with 23.1 percent vaccinated by the end of July 2021. For children ages 12 through 15, the Pfizer vaccination commenced on June 28, 2021 (HM Order A/404), with 3.9 percent vaccinated by the end of July 2021. Details of vaccination coverage by age and sex are provided in *Annex 7*.

### Mobile population

The Ministry of Mining and Heavy Industry had submitted to the Ministry of Health a survey of 39,454 employees of 298 companies implementing major



strategic projects and programs including mining, transportation, and other types of companies. Vaccination started for these groups on March 18, 2021. Initially, 10,200 doses of vaccine were delivered to Tavan Tolgoi and Nariin Sukhait mines to immunize mine workers (MMHI 2021)

For the hard-to-reach mobile population, such as herders who reside in remote areas, a mobile vaccination strategy is used to reach them every month. A mobile vaccination team from a soum health center is dispatched to provide routine immunization service for these populations. Half of all aimags reached a 90 percent coverage rate by June 2022, with the lowest coverage reported by Dundgovi aimag (79 percent and 76 percent for first and second doses, respectively).

### Poor

The local/khoroo administrative teams in localities organized a targeted campaign to vaccinate the homeless and street people. The Ministry of Finance reports that due to the incentive policy of the government for vaccination, 61 percent of the poor enrolled in the food stamp program and 38 percent of beneficiaries of the social assistance program were vaccinated.

#### Key findings

- Mongolia is among the first 15 countries (out of 146) to reach over 60 percent COVID-19 vaccination coverage within 10 months of vaccine inception. Leadership by the government and joint effort by development partners and the private sector enabled Mongolia to achieve this.
- The government was fully committed to vaccination against COVID-19, including by providing cash incentives conditional to full vaccination.
- In addition, different solutions and approaches have been used to address specific contexts in the population, such as mobile clinics for miners and outreach activities for the vulnerable and homeless, as well as other strategies.

### 4.4.3 Information, Communication, and Compliance

The COVID-19 vaccine acceptance rate has been quite high in Mongolia. A study revealed that 71 percent of respondents were willing to get the vaccine, 18 percent did not want it, and 11 percent were hesitant. Fifty percent of the respondents who did not want the vaccine or were hesitant had health reasons, whereas others either did not trust vaccine efficacy (26 percent) or did not trust vaccine safety, including fearing the possibility of long-term effects (14 percent) (NSO and UNICEF 2021a).

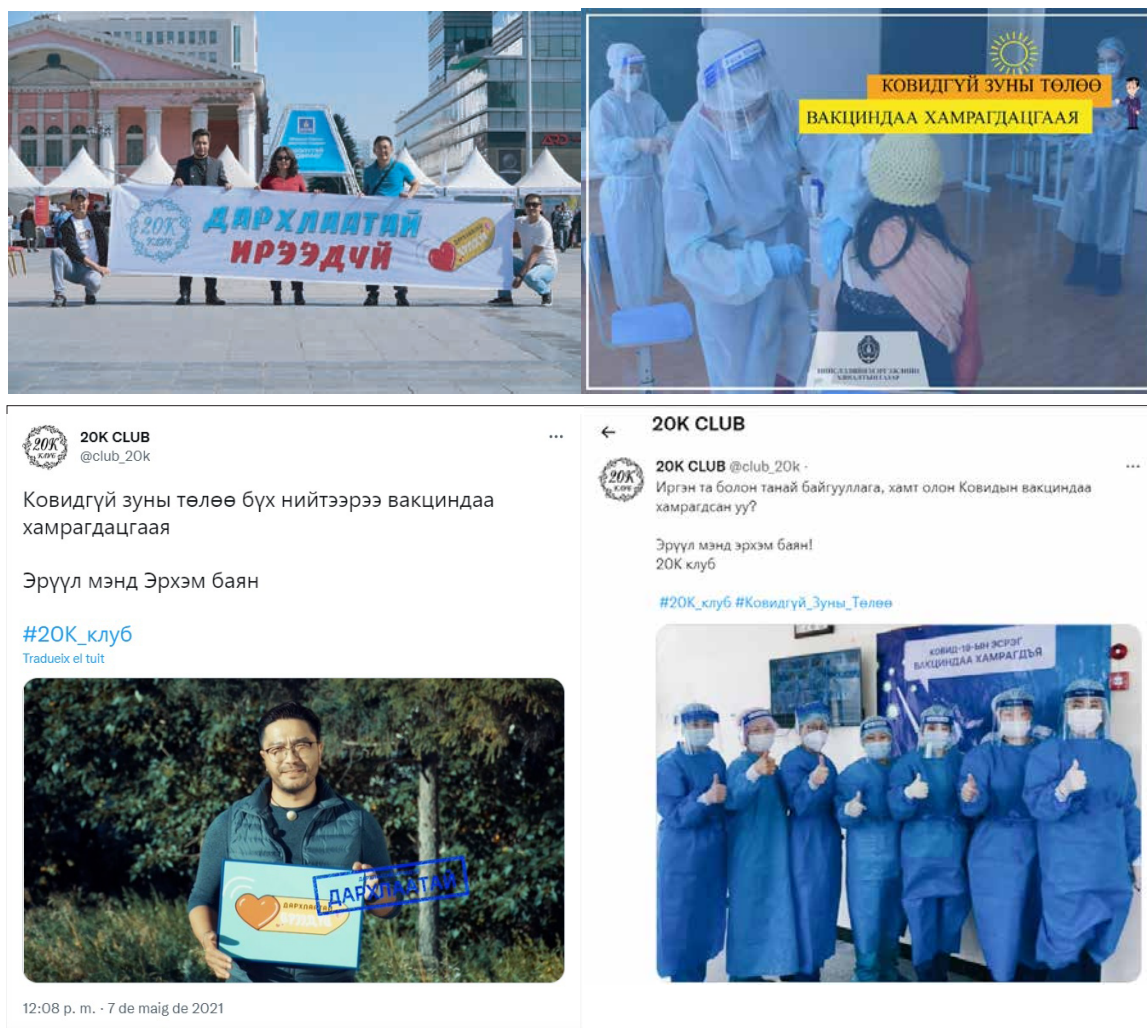
By Order No. A/404 of the Health Minister, dated June 23, 2021, the task of promoting benefits and advantages of vaccination was given to the National Center for Public Health, which operates a website on COVID-19. Vaccine promotion was also done through social media platforms including Facebook and Twitter. Meanwhile, a series of reviews under the name of “COVID-19 research team” compiled and published internationally accepted scientific evidence, including information on the benefits of vaccination, recommended precautions, misconceptions, and side effects (NCPH 2021a).

“...The vaccination coverage was very good in the country. However, some of the events and activities were conducted while the immunity had not been reached among the population. Then those events provided influence in infection spread. For instance, show on digital nation, political election...” (Immunization office)r

The benefits and necessity of vaccination were promoted by people with high social merit, influencers, and health care facilities through their social media accounts or websites. Also, the prime minister, politicians, academicians, and other famous people publicized their vaccine shots through different channels of the media, which became a strong promotional arena for increasing vaccine coverage (*Figures 22 and 23*).

In order to increase vaccination coverage, the “20K club” of Twitter users voluntarily organized a social media campaign with the slogans “Let’s have vaccine shots towards COVIDless summer” and “Future with immunity,” and invited social influencers to join the campaign and promote vaccination activities of the government.

**Figure 22:** Social Media Promotion for Increased Vaccination



Source: “20K club”, Twitter, [https://twitter.com/club\\_20k/status/1390518833299869696](https://twitter.com/club_20k/status/1390518833299869696)

According to Dambadarjaa, Altankhunyag, Chandaga, et al. (2021), Mongolians were aware of the possible side effects of the COVID-19 vaccine. However, among those who refused to be vaccinated, the side effects and the type of the COVID-19 vaccine were significant concerns. This could be associated with the fear of vaccine effects among populations with pre-existing conditions, chronic health problems, and pregnancy.

In another survey conducted by the National Center for Public Health (NCPH) in 2022 (Narantuya D et al., 2022), the main reason for not getting vaccinated was mistrust and false information (42.9 percent). Also, some interview respondents stated that people’s trust in the vaccine declined after the fourth wave of the Omicron variant, because many vaccinated people got infected, and after the MOH announced that the vaccine expiration date was extended by three more months.

**Key findings**

- Vaccine acceptance was high.
- An agency (the NCPH) was designated to conduct information, education, and communication (IEC) activities to support vaccination.
- Various IEC activities were led by both famous and ordinary people to promote vaccination on social media platforms, including Facebook and Twitter.

## 4.5 Protecting Vulnerable People

As stipulated in the Law on Social Welfare Assistance, the “people in need of social assistance” include elderly people in need of care, children in difficult circumstances, people with disabilities, citizens ages 18 through 24 who became orphans before the age of 18, and single mothers/fathers with many children. The primary health care providers are the frontline workers who reach out and provide and organize care for the wider population, including the elderly and others. During the pandemic, the primary health care facilities treated routine non-COVID-19 illnesses; provided COVID vaccination; performed rapid diagnostic tests; and monitored home care for mild cases of COVID-19 by telephone, in person, and through home visits.

“...The majority of primary care clients are elderly. Elderly people often come to FGPs and soum health centers and have less space than other people and have problems with queues...” (aimag, FHC head)

According to media reports, the National Center for the Elderly in Batsumber soum of Tov province restricted visits to the families of the elderly but provided an online meeting room and provided two laptops. By April 2021, a total of 153 elderly people at the center were vaccinated, excluding only 44 elderly people who had contraindications (News 2021b).

On the other hand, the studies reported a different situation for the elderly who live alone and outside of institutional care. They faced barriers to obtaining the newest information, medication, food, and other necessary supplies during the quarantine. An older person who needed care could not receive support during the lockdown through their informal (families and friends) and formal (family practitioners and social workers) networks (UNDP, NCGE, and ADB 2021).

The first phase of the “Coronavirus Impact Household Survey,” conducted by the National Statistical Office and the World Bank in May 2020, found that access to health care was 92.0 percent, or normal, for households in need of medical care. But in December 2020, this access dropped to 68.0 percent, which was attributed to the risk of infection outside the home and restrictions on traffic. However, according to the fourth phase of the study (April 14 to 30, 2021), access had increased to 79.0 percent. In terms of location, access to health care was slightly higher in rural areas than in urban areas.

## Women and children

Women and children have also been priority groups for provision of adequate and timely health services during the pandemic. In this regard, the MOH issued several important policy guidelines and regulations to maintain health care services for women, especially pregnant mothers. For instance, it issued Health Minister Order No. A/318, dated June 4, 2020, on pregnancy, childbirth, postpartum care procedures, and eight antenatal care examinations and it issued HM Order No. A/133, dated March 17, 2021, on antenatal care and electronic examination procedures. Five of the eight examinations can be performed electronically using mobile phones, computers, and tablets during coronavirus infection. Further, HM Order No. A/392, dated June 21, 2021, regulates the guidelines and recommendations for pregnancy, childbirth, and postpartum care during coronavirus infection.

However, the maternal mortality increased by 27.8 percent (2020) when compared with the data from the previous three years. From March to October 2020, there were five registered cases of maternal mortality in Bayan-Ulgii aimag. Nationwide, in 2021, 46 cases of maternal mortality due to COVID-19 were registered, which was 67.6 percent of the total 68 cases. The maternal mortality rate was 96.9 per 100,000 live births in 2021, which is triple compared to that of 2020 (30.2 per 100,000 live births) level.

Although essential health services were available, the fear of infection and social distancing measures hindered the access of families, especially women and girls, to routine health care services (UNDP, NCGE, and ADB 2021).

As of June 16, 2021, 1,594 pregnant women nationwide were infected with the coronavirus; 95.6 percent were diagnosed in Ulaanbaatar and 4.4 percent in rural areas. Therefore, the MOH decided to undertake a voluntary vaccination program for the target population—pregnant and lactating women—with the Pfizer vaccine, starting June 16, 2021 (Health Minister Order 2021g).

Further COVID-19-pandemic-related real-life challenges are being reported. Women have more mental health risks than men due to the pandemic. The pandemic has contributed to increased anxiety, stress, and depression among mothers in single-headed households due to the burden of household work and teleworking (Health Minister order 2021h).

The quarantine increased the burden of childcare for cases where one of the parents was quarantined. A third of households reported an increase in childcare costs. At the start of the pandemic, many employers offered female workers more flexibility than men, and one in four female workers enjoyed the opportunity to work from home and part time (UNDP, NCGE, and ADB 2021). Although these measures appear to be an advantage for women in terms of childcare conditions, leaving certain tasks to women alone is likely to deepen gender stereotypes.

In addition, due to the economic crisis, the number of companies offering flexible conditions to parents of young children declined. This suggests a lack of sustainable policy measures to support women's employment and prevent unemployment during the pandemic (Gantuya et al. 2020). Women play a dominant role in providing health services to the population (81.9 percent of workers in the health sector are women) and working on the frontline carried greater risks, with low salary, lack of incentives, and excessive workload.

The COVID-19 crisis has increased risks for young girls and women, the elderly, and those with disabilities for experience or witnessing of violence, neglect, exploitation, or abuse. During the pandemic there was an increase in cases of gender-based violence and a sharp rise in the number of domestic violence calls and the need for shelters for women. The number of registered crimes in the first half of 2021 was 10,595, a decrease of 3,348 (24.0 percent) from the same period of the previous year, but the number of crimes related to domestic violence was 691 in the first half of 2021, an increase of 124 (21.9 percent) from the same period of the previous year (NSO 2021b). One-stop centers and shelters in Ulaanbaatar are functioning for victims of violence, but these are not sufficient, and regulations are not enough (MOH and NHRC 2019).

### The poor and migrant

The Social Policy Department of the Ulaanbaatar City Governor's Office and the Ulaanbaatar City Social Welfare Department, in cooperation with the Ulaanbaatar City Police Department, found 248 homeless people living in the city's major shopping malls, markets, bus stations, hallways, and streets. The responsibility of providing temporary accommodation services was handed over to the Special Center for Social Welfare, under the capital city governor, and

six nongovernmental organizations. There were 182 homeless people in special social protection centers, and a total of 420 homeless people were provided with temporary accommodation in the capital city, and they were administered COVID-19 tests (MLSP 2020).

The Mongolian Red Cross conducted a survey of the people who were in need during the lockdowns and provided this information to the SEC. Also, during the infection waves they directly provided food, hygiene supplies, and other necessities to the poor and homeless people. For instance, between November 11 and November 23, 2020, 2,133 food packs and 117 hygiene packs were distributed to the people (MRCS 2020).

Mobile people, especially those working in the mining industry, can be provided with on-the-job health care if needed. The MOH prioritized vaccination for these citizens. As of March 18, 2021, 10,200 doses of vaccine have been delivered to export truck drivers and mine workers (MMHI 2021).

### Key findings

- The primary care facilities acted as main care providers for the elderly and vulnerable population groups. Single-person households of elderly who live alone faced challenges during the pandemic.
- Mongolia did not report COVID-19 outbreak in residential nursing homes where elderly reside.
- During the pandemic, the care of pregnant and lactating women and children was readjusted from time to time; however, the maternal mortality rate has increased over the last two years, due to lowered access to essential services during the pandemic.
- Anxiety, fear, mental health issues, and gender-based violence have been on the rise during the pandemic.
- The government has implemented measures to resettle and provide health care to the poor care during the COVID-19 pandemic.



## 4.6 Innovation Through Leapfrogging

### 4.6.1 Information and Communication Technologies (ICTs)

The long-term development policy “Vision 2050” and Government Action Plan 2020–2024 promoted the digital transfer and integrated platform for public services. Thus, the Mongolian government has been making sustained efforts to improve the efficiency of public services based on a move toward electronic and digital operation systems in the public sector. The COVID-19 pandemic further intensified these efforts, and the COVID-19 Law stipulated that the government should enable the transfer of public services to digital mode and establish an integrated platform for them (7.1.28). On October 1, 2020, the Communications and Information Technology Authority (CITA) introduced the integrated digital platform for public services—[www.e-mongolia.mn](http://www.e-mongolia.mn)—which contains 181 types of services from 23 government agencies and organizations.

The E-Mongolia system has been expanding and developing to integrate and link COVID-19-related services such as risk communication and vaccination. Thus, the number of users has been increasing. In November 2020, 1,500 citizens used the application; by December, 4,500 were using it; and by May 2021 there were 2.5 million users. Five hundred and

twenty-seven kinds of public services were covered, including those for personal and entity registration, permissions, licences, and reference statements (CITA 2021a). As of October 2022, this number increased to 684 kinds of public service, and 13,906,868 services were provided to the people. The platform enables the public to access routine public services without having to travel to the institutions.

The Communications and Information Technology Authority (CITA) has launched a new platform, QR.119.mn, to provide real-time information on COVID-19 to the people and for making a digital registry of entry and exit lists. Through this platform, business entities have used a unique QR code that they can display at their entrance, enabling customers to scan the code through the E-barimt Application (*Figure 24*). The Tax Agency-based system [www.e-barimt.mn](http://www.e-barimt.mn) has been used for registering people’s movement and sending warning information on possible contacts with an infected person, through a QR code system for all facilities (CITA 2021b).

People who do not own a smartphone or who do not use the E-barimt Application are registered on paper.

**Figure 23:** QR Code Scanning and Paper Registration Process



Source: <http://eagle.mn/r/82005>, <https://www.mass.mn/n/69050>

The COVID-19 ERSDEL Application was first put into practice on April 19, 2021, by the National Emergency Management Agency. Apple and Google developed this system to spread awareness of COVID-19 risk (CITA 2021c). This application is widely used globally, due to its good privacy protection while contact tracing (it does not save personal information of users such as name and address and does not disclose the information to others). However, in Mongolia there were several cases of personal information leakage in the process of contact tracing. Thus, although there was widespread marketing and advertising of this application, its usage in society still did not increase. By July 18, 2021, the COVID-19 ERSDEL Application had reached 491,520 users. Through SMS (short messaging service), the app reported that a total of 120,946 people were infected by COVID-19, and 2,926 close contacts of these individuals received a message recommending that they stay in self-quarantine (CITA 2021a).

For people who downloaded the E-Mongolia Application, daily information of COVID-19 infection is sent as a notification from the app. For the people who activated the COVID-19 ERSDEL system, risk and warning messages about the possibility of being infected are sent to their mobile phones.

“...Monitoring whether everyone had scanned the QR registration code was hard when there were large numbers of people, people were frustrated when the QR code was at the front door and also inside the building, some of them were even refusing to scan the code because they were scared that if there were to be an outbreak then they would also be put in a quarantine....” (Doctor, private hospital)

Another system that builds up a testing database, <https://eruul.gerege.mn>, was developed jointly by the SEC, MOH, and Gerege Systems LLC. It has been used for booking appointments for PCR testing,

receiving the results, registering both rapid and PCR test results, and transferring positive result information to contact tracing sites. During the one door-one test mass screening period, <https://eruul.gerege.mn> was upgraded with the household information database of 134 blocks from Ulaanbaatar’s six districts and the spatial information system of Ulaanbaatar. Then the tests taken were uploaded to <https://COVID-1919.gerege.mn> block by block, and the test results and process could be visualized on a dashboard in real time. During the mass screening in February 2021, a GPS monitoring system was used for specimen transporting vehicles. There were 66 vehicles with GPS that could receive specimens from mobile and fixed test locations and carry them to the NCCD and district hospitals’ laboratories (City Governor’s Office, 2021).

There is another testing registration system for civil servants and their family members, named “UB ERP.” This was integrated with <https://eruul.gerege.mn> and the HUR system. By March 1, 2021, the test results of 16,845 civil servants from 1,204 facilities were uploaded and registered in the system.

Information on COVID-19 management was separately handled by different systems including <https://eruul.gov.mn>, <https://tandalt.gov.mn>, HUR, and H-Info. This was causing quality issues in the data information. Therefore, in May 2021, the health minister approved Order No. A/319 to regulate and standardize the information flow of COVID-19 management.

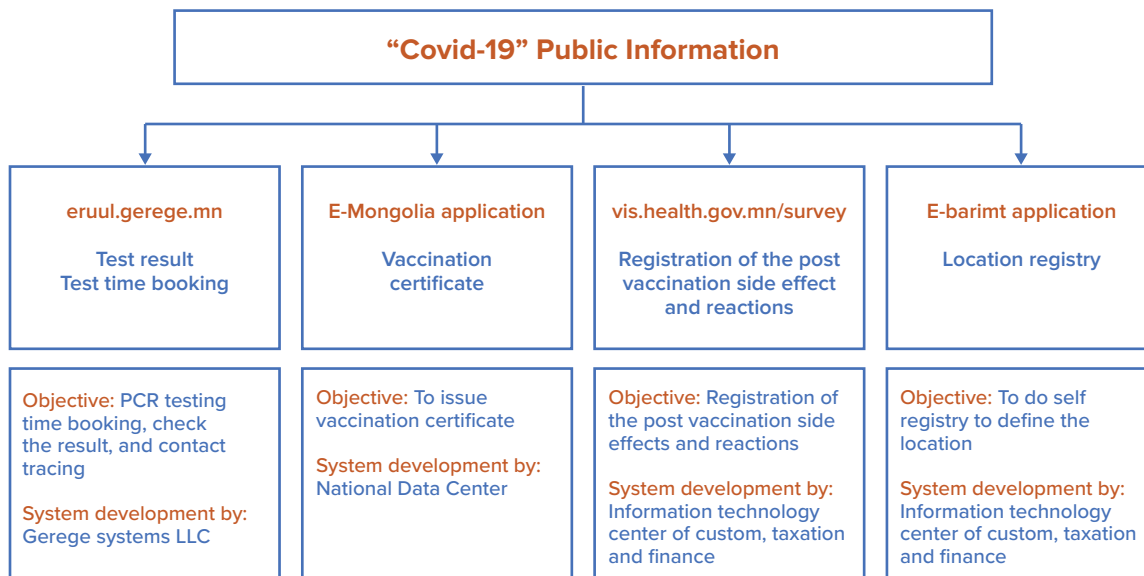
Results of COVID-19 tests would be registered into the <https://eruul.gov.mn> system, and positive results information would be sent and registered into the Surveillance Information System (<https://tandalt.gov.mn>). This system records information about close contacts and their test results. The information on vaccination was collected in the system <https://health.gov.mn> system. Information from testing, surveillance,



and vaccination systems is then uploaded into the HUR system, which is a national level information database. Home isolation of the confirmed cases under FGPs’ monitoring and admitted cases were registered into the health statistics information collection system H-info 3.0. Admitted patients were also registered in E-HEALTH or other medical programs, and this registration was run by the hospitals. After a patient’s recovery or hospital discharge, the patient information was registered in the “Medical Recovery Certification” part of H-Info and then sent to the HUR system. From the HUR system, the COVID-19 integrated management dashboard can be seen by the MOH and NEMA, and reports are sent to the E-Mongolia Application for the public’s information (Figure 25).

“...Nowadays an integrated online system that is capable of online registration, time booking, surveillance case registration has become necessary. From December 2020, online registration of medical services has launched, by 20th of March 2020, surveillance case registration has been launched. Therefore, entities using the system can look up information updated real-time, family doctors can access the system and monitor the situations on their block. Before the online system this information was passed in excel form, however when they registered COVID-19 cases, increased information asymmetry and slow speed of update were causing problems. With the online system, efficiency of information uploading, and timely reporting has rapidly increased.” (Ulaanbaatar City Health Department, officer)

**Figure 24:** Information System During COVID-19



## The government's reforms through the digital revolution and its launch of the E-Mongolia system have contributed greatly to all aspects of reporting and monitoring of the pandemic.

### Key findings

- The government's reforms through the digital revolution and its launch of the E-Mongolia system have contributed greatly to all aspects of reporting and monitoring of the pandemic. At the same time, these steps helped to improve the efficiency of civil service provision and to combat corruption by reducing the procedures, steps, and communications necessary between public servants and the people.
- The current system of the Mongolian Tax Administration's VAT receipt scanning application was used in QR code scanning for people's movement registration and contact tracing.
- This digitalization of the civil services and COVID-19-related services enabled a supportive environment for adherence to quarantine regimes, testing, contact tracing, and surveillance purposes.
- The more recent effort of using an integrated system for pandemic information flow—including test results, vaccination, contact tracing, surveillance, and clinical management—was introduced to decrease the information asymmetry, and this system made it easier to exchange information among individuals and entities.

### 4.6.2 Public and Private Partnership

The role and involvement of the private sector in responding to infectious disease outbreak has been reflected in two laws of Mongolia (Disaster Protection Law and Health Law). Private entities are responsible for prevention of infectious disease, following the approved rules and regimes for protection of the staff and customers. The COVID-19 Law stated the role and responsibilities of private entities and health care service providers. A whole article (13.2) is dedicated to detailed responsibilities of private entities in prevention, surveillance, quarantine, information exchange, implementation of the required rules, and provision of an enabling environment for the employers and customers.

The involvement of private health care provider facilities, including FHCs, pharmaceutical and supply companies, laboratories, clinics and hospitals, and disinfection service providers, was documented and regulated by health minister orders. FHCs were providing routine essential primary health care services until March 2021; after that they also started to provide surveillance, case detection, treatment, and control for COVID-19 patients according to the regulations of the SEC. Pharmaceutical and supply companies have been working to provide the required resources for medicines, medical devices, equipment, diagnostics, and PPEs and contributing to building up the stock. Private laboratories, clinics, and hospitals were delivering other medical services and acting as a backup for the health sector, and some of them were providing isolation center services.

Collaboration and partnership with the private sector for COVID-19, as prescribed by the policy framework, have not been easy. The interviewees also mentioned that participation of private sectors was not fully supported. Some of them had positive feedback about a newly developed PCR testing methodology, using saliva samples, that was created by the team of researchers from the MNUMS. On the other hand, others noted that even though the saliva-sampled PCR test method was supported by the government and its application was permitted, there is still lack of further research to approve its efficiency and accuracy.

“...It took too long for the test kit made by Mongolian researchers to be approved for usage. Similar tests can only be imported, so why not show some support towards the local products...”  
(Pharmacy personnel)

“...PCR testing from nasopharyngeal sampling method was the most reliable, but Ag rapid tests or the saliva sampled PCR tests were not accurate as expected when the sample was not taken properly...” (MOH policy maker)

#### Key findings

- There is a legal environment in which private entities participate in response and mitigation activities during a potential disaster or infectious disease pandemic. For the COVID-19 pandemic period, private organizations and facilities have actively participated.
- Private medical entities initially complained about insufficiencies in their involvement in testing and treatment of cases, due to the lack of clarity on funding sources for providing services for COVID-19 conditions. However, once the government decided to provide reimbursement from the National Health Insurance Fund, participation by private medical entities in COVID-19 clinical management increased.

## 4.7 Measures to Contain COVID-19 With Human Capital Perspective

### 4.7.1 Education

Mongolia is one of the few countries that implemented the longest closure of educational facilities due to the COVID-19 pandemic. Starting January 27, 2020, all public and private schools and kindergartens were required to close classroom lessons and start online classes. Thus, preschool, elementary, middle, and high school lessons, as well as university and college classes, were taught online until June 1, 2020, the end of the academic year. The national entrance exam was held on July 2 and July 5, 2020, for students enrolling in university and college for the academic year of 2020–2021 (*Annex 5*).

At the cabinet meeting of March 25, 2020, the “Educational Information Technology Center” was formed as a government facility. The main goal of this center was to form an online content archive and an online platform for education (Econtent 2020). The Ministry of Education and Science had developed contents and digital resources for education during emergencies, therefore all public schools’ classes were successfully converted to TV classes. Due to the quarantine and lockdown during the second half of the 2019–2020 school year, 4,210 hours of TV classes were held nationwide for preschool, general education, and special needs education (MEDS 2021).

The academic year 2020–2021 commenced on September 1, 2020. In order to start the academic year, the SEC issued Order No.2, dated August 7, 2020 and stated that all educational facilities must fulfill certain conditions prior to reopening of schools, including providing sufficient hand sanitizing and washing stations and toilets, conducting chemical and microbiological testing, and improving the quality of the drinking water. However, on November 11, 2020, all educational facilities had to be closed again and reverted to virtual classes, until June 2021, when the academic year ended.

The Ministry of Education conducted a risk assessment, and the government decided to start classroom education on September 1, 2021, for all kinds of education facilities. The secondary schools were to implement a mixed scheme combining classroom and distance learning—five days at school alternating with five days at home. The mixed learning system, named the “5/9 principle,” enabled children to be in the classroom within the infection’s latent period, followed by nine days of staying at home during the possible infection diagnosis (*Figure 28*).

The low infection rate among schoolchildren and teachers between September 2021 and January 2022 showed the effectiveness of the 5/9 strategy. For instance, no schools reported more than 10 cases of infection. Only one infection case was confirmed at 80.3 percent of the schools, while two to five cases were noted at 18.8 percent of the schools. Moreover, eight out of 10 respondents to the survey, which included 680 teachers, rated the 5/9 strategy as more effective than the full distance-learning mode (MEDS 2022a).

Although the main modes of distance learning were TV and additional online lessons, teachers also reached out to children using other modes of communication, including phones, emails, social networks, and so forth. Four out of 10 children in rural areas did not watch TV or access radio lessons. The situation is slightly better in urban areas (NSO and UNICEF 2020a).

However, there have been some challenges in relation to these new types and modes of education delivery. For instance, every third child in urban areas, and four out of 10 children in rural areas, could not watch TV or access radio lessons, which posed challenges for the continuum of educational services. According to the general education system's approved training plan, first- through 12th-grade students were supposed to have 6,393 hours of lessons, and 3,790 hours of these lessons were to be in the form of TV classes. The online and TV classes were more of a revision and review of previously learned concepts and content, rather than a presentation of new content, according to the plan.

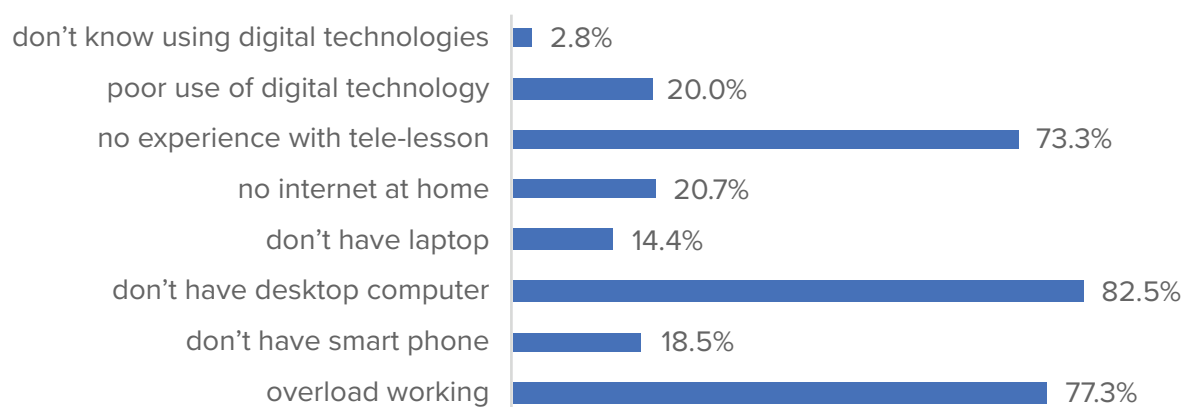
This scheme was criticized because many (35,956) children could not attend the TV classes and distance learning lessons due to lack of internet access (Defacto 2020).

Moreover, access to educational materials for distance learning is insufficient and does not reach even half of the children. Only 30.0 percent of children from rural areas and 43.0 percent of children from urban areas received learning materials from their schools or teachers. Information on children's performance has been limited. More than half of children from rural areas in grades 3 to 12 of secondary school, and 43.0 percent of children from urban areas, did not know their academic scores during the 2019–2020 academic year.

From September 2020 to March 2021, self-reported dissatisfaction with distance learning increased by 9 percent, while the dissatisfaction of parents with their children's learning was 11 percent. The preferred learning modalities are the classroom (73 percent) and mixed (13 percent) types. Almost all of the children (91 percent) wanted to go to school because they missed friends (60 percent) and teachers (19 percent), and they liked school (38 percent) (NSO and UNICEF 2021b).

During the pandemic, teachers faced the challenges of online teaching. For instance, 77.3 percent of all teachers indicated that their workload increased due to the organization of e-learning, 18.5 percent said they did not have smartphones to manage their lessons, and 82.5 percent said they did not have a desktop computer (*Figure.26*).

**Figure 25:** Challenges Faced by Teachers During the Online Mode of Teaching



## RESPONSE

The survey found that 178,000 students had limited access to e-learning due to location, and that 76.8 percent were anxious about the results of e-learning, missed their friends, and were tired of telelearning, making them less able to learn on their own.

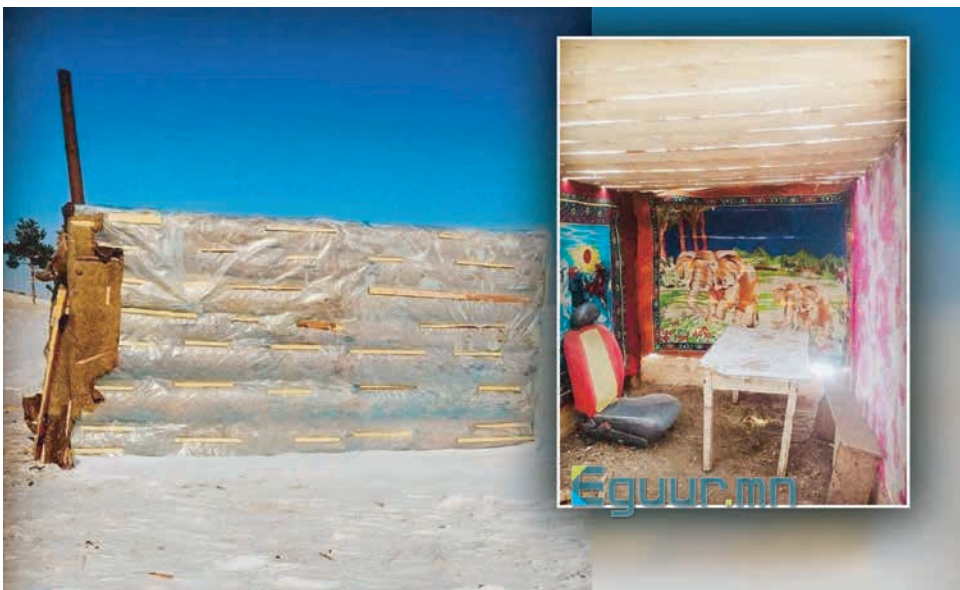
The government, along with other players, implemented some innovative contents and approaches to address these challenges:

- An “Online trip” made TV classes more interesting and attractive by providing interactive content on 104 topics for preschool and secondary school children (UNICEF 2021).
- Except TV lessons, other types of distance learning were developed and introduced. Thirty units of audio content were developed, produced in audio devices, and distributed to four-to-seven-year-old preschool children from rural areas, in order to support their educational activities and reduce the learning delays. Digital platforms including <http://old.econtent.edu.mn/>, <https://medle.mn/>, <https://marchaakhai.mn>, and the Marchaakhai Application provided the online lessons.
- Private entities and nongovernmental organizations have been providing support to improve the quality of distance learning and

increase children’s participation. For instance, World Vision prepared 1,000 electronic devices for uploading TV classes for first through 12th graders, and for distribution around the aimags. Also, mobile telephone service provider company Mobicom offered free internet access to <http://old.econtent.edu.mn/>, which contains TV classes for grades 1 through 12, and <http://help.eec.mn/> болон <https://eyesh.eec.mn/> is dedicated to preparation for the college entrance exam. The lowest priced data package, “University,” was produced and offered to the students for their online learning (Mobicom 2021).

- The access and efficiency of the distance learning and TV classes have been highlighted not only by the educational organizations but also by the parents and students themselves. Information from social media indicated that parents in rural places worked hard to figure out diverse ways their children could watch TV classes. For instance, a small barn was built on the highest ground so a good connection signal could be accessed, or children could attend class inside vehicles as they were being driven and then ask other people to bring their homework sheets to the class teacher at the center.

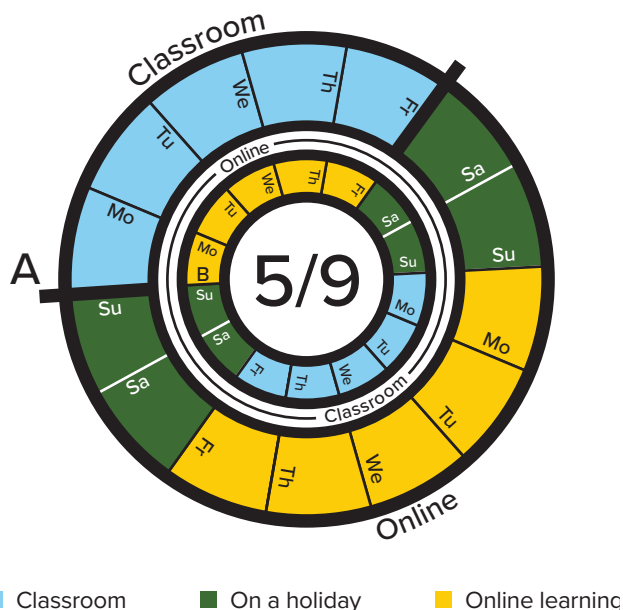
**Figure 26:** The Barn for Class (Outside and Inside)



Source: Eguur news website, <https://eguur.mn/183015/>



**Figure 27:** The 5/9 Principle by the Education sector on in-person and virtual arrangements



Source: Ministry of Education and Science, *Good Practice in Mongolia, 2022*

School children experienced a learning loss or gap in knowledge and skill due to the lockdown period. The Ministry of Education and Science developed and approved the revised curriculum for learning loss recovery (Minister Order No. A/88, March 2021), aimed at supporting children in transitioning into the standard curriculum within two academic years, 2021 and 2023 (Education and Science Minister order 2021). Within the framework of this program, three goals are set: feedback, compensation, and stabilization of the learning gaps.

The revised curriculum covers both the time and content losses that occurred with online classes. The revised curriculum is supported by paper-based training materials, as well as online interactive resources. The education management information

system is composed of different subcomponents, including systems for secondary schools, technical and vocational schools, and higher education facilities. Medle e-school is one of the components that provides the opportunity for schoolchildren to learn elective modules online regardless of space and time constraints, and it is taught by the best teachers (MEDS 2022a and MEDS 2022b).

**Key findings**

- Compared with other countries, the Mongolian education system implemented tighter policies to support the government’s policy for containing the spread of COVID-19.
- All levels of educational facilities moved to online training modality during the early part of the COVID-19 pandemic, followed by mixed modes of classroom and online learning.
- TV is the main platform for online classes. Schools and educational facilities have been undertaking the digital transition and their capacity has been improving.
- Distance learning was criticized for having less accessibility, equity, and efficiency, although efforts have been made to prevent learning delay and class interruption online. For instance, due to the lack of digital devices, children from rural areas or poor families struggled to attend the TV classes.
- As the online mode of education continued, parents’ satisfaction with TV classes decreased and children became bored and started to prefer the classroom lessons.
- Every player in the process of digital education, including students and parents, participated in and supported it.





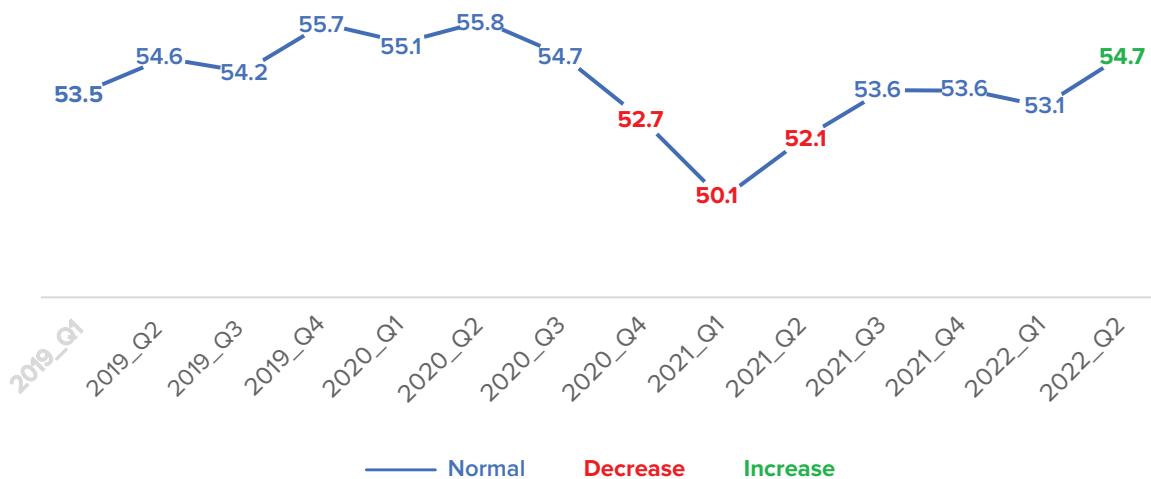
Nurse visiting nomadic family to provide COVID-19 immunisation

### 4.7.2 Social Protection and Jobs

COVID-19 impacted socioeconomic indicators in Mongolia. For example, in the first half of 2021 the employment rate declined by 4.6 percent, compared

with the third quarter of 2020 or before local transmission of COVID-19.

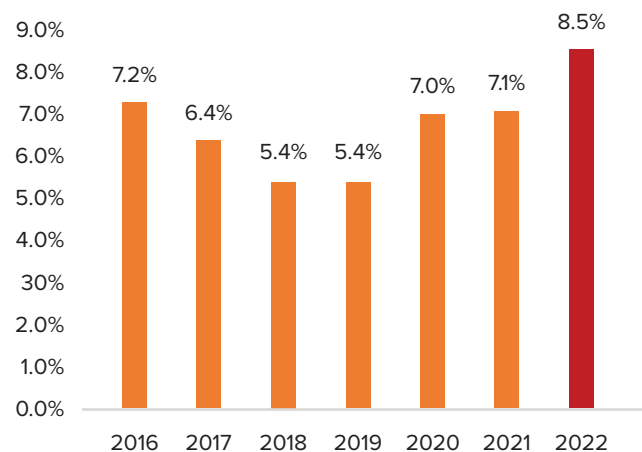
**Figure 28:** Employment Rate, 2019 Q1–2022 Q2



Source: Employment statistics, National Statistical Office of Mongolia, available at [www.1212.mn](http://www.1212.mn).  
Q: quarter of the year.

In another words, with several rounds of nation-wide lockdowns from November 2020 to June 2021, the loss of temporary jobs affected the overall employment rate in Mongolia (Figure 29).

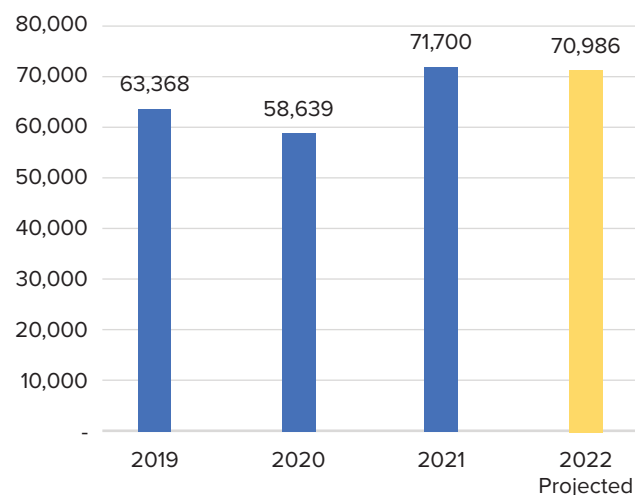
**Figure 29:** Unemployment Rate, 2016–2022 Q1



Source: Unemployment statistics, National Statistical Office of Mongolia, available at [www.1212.mn](http://www.1212.mn)

Consequently, the unemployment rate reached 7.0 percent in 2020 and 8.5 percent in the first quarter of 2022, the highest level since the economic crisis of 2016; it was 5.4 percent in 2019. (Figure 30). Often, unemployment rate rises during periods of economic crisis, and it has been growing steadily for the past three years. Although economic growth is slowly resuming, the rise of unemployment has been driven by a reduction in temporary jobs as well as by increased government social assistance and support during COVID-19. There was a higher average household income in 2021, with decreased wage income, as government increased social support and assistance to households (Figure 30 and Table 23).

**Figure 30:** Number of Persons Receiving Unemployment Benefit Allowance From Social Insurance Fund, 2019–2022



Source: National Statistical Office of Mongolia, available at [www.1212.mn](http://www.1212.mn)

Formally employed citizens pay social insurance contributions, and when they leave a job or are laid off from their employment, the Social Insurance Fund provides unemployment benefits for a period of up to three months. In the past four years, the number of people granted unemployment benefits increased, especially during pandemic years. Based on data from the first three quarters of 2022, the number of persons receiving unemployment benefits would reach about 70,000 by the end of the year, with a slight decrease from the previous year. In other words, the stable employment rate decreased due to COVID-19 (Figure 31).

In addition to the usual social welfare measures, the government introduced a new social support policy for the general population and for population groups with special needs. This support covers social welfare pensions, child allowance, the food stamp program, allowance and discounts for the elderly and those with disabilities, additional benefits for the elderly and state-honored people, allowance for single mothers and fathers with many children, cash benefits for mothers with more than four children, and old-age benefits that existed previously and continued during the pandemic.

The new social assistance and support measures have been approved to protect population health, income, and jobs while tackling the challenges of the economy (State Great Khural 2020). The enforcement periods of this parliament resolution have been extended a number of times. These include a monthly cash transfer ranging from 20,000 MNT to 100,000 MNT for every child under the age of 18, and a doubling of the amount for food stamp allowance—for adults, 16,000 to 32,000 MNT, and for children, 8,000 to 16,000 MNT. In addition, various measures of tax exemption covering both personal and business entity income taxes have been put in place. Citizens, except civil servants and employees of international organizations, are exempt from personal income tax payment. The personal income tax duty has been temporarily ceased for all kinds of income for the people. The business entities have also been exempted from income tax payment when they report annual income lower than 1.5 billion MNT, in the previous year. The tax for income earned from property rent has been reduced by an amount equal to the reduction in rent fees for renters. Moreover, both households and businesses have been granted subsidies for their heating and electricity bills.

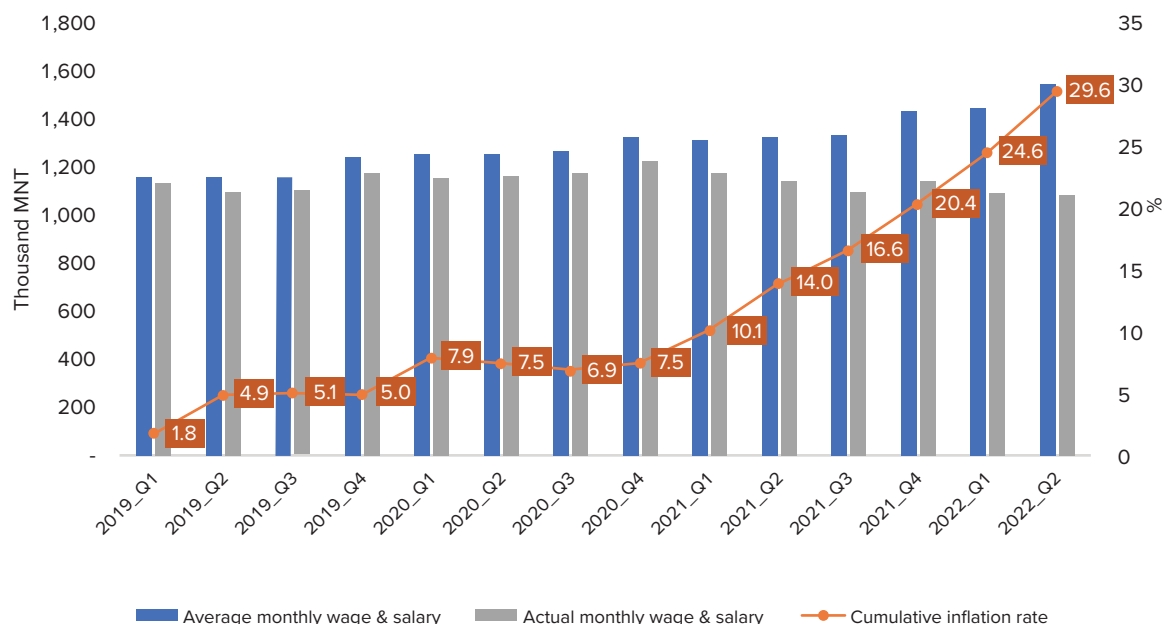
According to a recent 2020 study, increased social protection support from the government to the people has brought positive results due to a slight increase in household income. In particular, this support helped the elderly, children, single

mothers, and households under the poverty line to overcome the difficulties of lockdown (Naranbayar et al. 2020). In addition, government policy measures implemented during the COVID-19 pandemic have been studied by the Multiple Indicator Cluster Survey Wave 2 (MICS Wave 2). The MICS Wave 2 reports that 81 percent of the families were receiving at least one type of government benefit—the child money monthly top-up (68 percent), the exemption from social insurance payments (28 percent), cash allowances (18 percent), pension and allowances paid from the social welfare fund (10 percent), and/or the food stamp program (7 percent). However, according to MICS Wave 3 in March 2021, 57 percent of households reported declines in average monthly income since February 2020. The top five reasons for household income decline were:

- quarantines and lockdowns that prevented people from working, or they could not go to work (61 percent),
- decreased demand for business where people were employed (21 percent),
- closure of the employer (10 percent),
- reduced hours of work (7 percent), and
- closure of their own businesses (6 percent).

For coping strategies, households reported that they cut down on household expenditures (81 percent) and borrowed from friends or family (45 percent) (NSO and UNICEF 2021b).

**Figure 31:** Average Salary and Actual Salary, 2019 Q1 to 2022 Q2, Mongolia



Source: National Statistics Office of Mongolia, available at [www.1212.mn](http://www.1212.mn)



*Ventilators provided by World Bank COVID-19 project, in the Intensive care unit at General hospital, Dundgobi province*

Prior to the pandemic, the average wage/salary in the fourth quarter of 2019 was 1.2 million MNT, but after the pandemic began, in the second quarter of 2022, wage/salary increased by 24 percent, or to 1.5 million MNT per month. However, in actual terms, the average monthly wages and salaries

have substantively declined (by 42 percent) when compared with the prepandemic period. The fiscal and monetary policy measures implemented during COVID-19 times hiked inflation rates and potentially impacted the purchasing capacity of poor and vulnerable people (*Figure 32*).

**Table 23:** Household Average Monthly Income, 2018–2021 (MNT)

Income type	2018	2019	2020	2021
<b>1. Income</b>	1,082,372	1,230,300	1,394,136	1,500,995
Salary and wages	577,813	678,901	754,492	694,576
Pensions and benefits	210,235	226,474	294,996	441,046
Household's own income	185,014	215,022	203,898	223,982
Other	109,310	109,903	140,750	141,391
<b>2. Donations</b>	55,949	61,345	52,142	41,603
<b>3. Household-produced free food product</b>	42,746	51,783	62,559	78,856

Source: National Statistical Office, [www.1212.mn](http://www.1212.mn)

As there is a lack of poverty level assessment data in Mongolia in recent years, no information was found on changes in household income and poverty level due to COVID-19. However, according to National Statistical Office (NSO) data, on average, household income and salary income decreased by 8.6 percent in 2021, while the pension income increased by 50 percent, compared to 2020. But other income was reported as normal. In 2018, the share of salary and wages in the average household income was 53 percent, and pensions accounted for 19 percent. In 2021, wages accounted for 46 percent and pensions accounted for 30 percent. The household income generated by self-owned businesses decreased in 2020 and is likely to rebound in 2021 (*Table 23*).



Vaccine kept in the refrigerator at soum health center

### Key findings

- COVID-19 impacted social indicators and corresponding policy measures in Mongolia. Employment rates fell during the COVID-19 lockdowns and were expected to rebound after the first half of 2022, slowly reaching the prepandemic level. The unemployment rate reached its highest level since 1991 in the first quarter of 2022.
- The number of insured receiving unemployment benefits from the Social Insurance Fund, or severance pay for the insured who are in stable employment and pay premiums, increased in 2020, compared to the pre-COVID-19 period. In 2020, there were several policy measures to support and maintain income levels of enterprises, but these were discontinued in 2021 due to the expanding budget deficit.
- Considering the structure of monthly household income, the amount of pension and benefit income increased by 10 percent compared with the prepandemic period. According to the Household Socio-Economic Survey, pensions are the main source of income for households with a monthly income of less than 1 million MNT.
- The people have been protected financially with continuation of existing social protection policy measures and implementation of new ones, including larger amounts for child monthly allowance and food stamp allowance, and reductions in household heating and electricity bills.
- The great majority of households (81 percent) in Mongolia received at least one type of government benefit.
- Monthly average wages and salaries increased by 24 percent in nominal terms compared with the prepandemic period; however, when adjusted for inflation, they declined substantially (42 percent) compared with the prepandemic period. The real poverty rate is yet to be known due to the lack of a recent national household survey.



### 4.7.3 Water, Sanitation, and Hygiene (WASH)

**Water supply in Ulaanbaatar:** Since its establishment in 1959, the Water Supply and Sewerage Authority of Ulaanbaatar city (WSSA) has been in charge of the centralized water supply system of the capital city. Nowadays the WSSA is a state-owned enterprise responsible for supplying drinking and clean water to over 1 million citizens, entities, and industries in the capital city, and for removal of wastewater generated by them. Per year, 55.2 million m<sup>3</sup> of clean water is quarried and distributed as planned, and 587.1 thousand m<sup>3</sup> of clean water is distributed to 222.5 thousand people and 91 contract entities in ger districts of Ulaanbaatar capital city by means of 58 water transportation trucks and 270 water kiosks. The proprietary authority of source facilities of water supply is obliged to control water quality indices specified in the standards, and if any index exceeds its allowable limit, that authority has to inform the health and other related authorities and execute mandatory measures immediately.

**Water supply in rural areas:** 20 to 30 percent of the population in aimag centers lives in apartments that have only cold water and are connected to the sewerage system, while the rest of the population consumes drinking water from water kiosks. Inhabitants in soum centers do not even have a central water supply system; they consume drinking water from deep and shallow wells with hand pumps and surface water sources. Therefore, a national program on “Safe drinking water supply” was issued by the Government of Mongolia Resolution No. 84 of 2018, and implementing works are being carried out. The aim of the national program is to guarantee the supply of safe drinking water, meeting hygienic requirements, to the population (MCUD 2021).

Adequate water supply is available to only 70 soums, while 345 villages in 170 soums have water supply issues. Most herdsmen consume drinking water from dug wells or surface water for pasture and irrigation. In the future, searching and exploration of water sources need to be done for the purpose of improving water supply in 100 soums. Water supply issues in 21 soums’ centers are considered extremely urgent. Besides, 38.5 percent of drinking water used by inhabitants of soums and villages in rural areas do not meet the hygienic requirements for chemical composition (State Great Khural 2010).

In Mongolia, data on the rural population’s water supply and sanitation is limited. On average, 100 to 300 households live in a soum center and only one or two groundwater wells serve both humans and animals. Water quality of the wells varies. The wells in the Gobi and steppe regions have hard water with high mineral content and do not meet the requirements for drinking water intended for human consumption (UNDP 2013). Ninety-two percent of the household population uses basic drinking water services. However, this percentage falls to 69.0 percent among the population in the poorest households. Ninety-five percent of the household population uses improved sanitation services. Lower percentages are noted for both indicators among the population living in rural areas, the Western region, and those living in the poorest households (NSO and UNICEF 2020b).

In relation to the pandemic, stronger measures were taken to increase control over water quality. The water source disinfection guidelines have been implemented, and drinking water is disinfected regularly. Monitoring of the residual chlorine on an hourly basis has been conducted at the water source



## Water supply facilities conducted activities to provide drinking water to households at ger and mobile water source areas during the lockdown period.

and pumping stations. The Water Central laboratory has conducted testing of residual chlorine 501 times at the water sources since the start of the pandemic.

In addition, the GASI has been analyzing and monitoring the quality of the drinking and sewage water of the quarantine and isolation centers, including at the NCCD, the Central Military Hospital, and others. The results of the water analysis of those facilities has been continuously reported to the MOH and NEMA. Analysis of the water quality has shown that SARS-CoV2 has not been detected in wastewater, and indicators including biochemical oxygen demand, chemical oxygen demand, and weighing substance were within the limits of the national standard MNS 6561:2015 for sewage water. However, the sewage water purification process at some places could not be completely conducted, and these locations show poor results on the biochemical oxygen demand indicator, according to the national standard MNS 4943:2015 for treated wastewater for environmental supply. The average level of mechanical and biological treatment of domestic wastewater treatment plants is 82 percent. But the disinfection of wastewater is not carried out in accordance with technological procedures, which creates conditions for soil contamination by pathogenic bacteria.

Water supply facilities conducted activities to provide drinking water to households at ger and mobile water source areas during the lockdown period.

**Figure 32:** Conducting Sampling and Testing of Sewage Water Quality



In 2020, the National Center for Public Health (NCPH) published the guidelines for health care facilities and personnel on “Water, hygiene, sanitation and waste management of healthcare facilities” and distributed them to all the hospitals and health care organizations. Following this guide, 150 environmental specialists from the health care facilities were trained online on implementation. In June 2021, the handbooks and the guide on the water sanitation process—titled “Improving Student Health and Learning through Good Management of School Water, Sanitation and Hygiene” and “School Water, Sanitation and Hygiene Surveillance” (WHO European Region), respectively—were translated and distributed to the educational facilities. In order to support the education on water, environment, personal hygiene, and COVID-19 infections, 11 digital lessons were prepared and distributed electronically to school teachers and doctors (NCPH 2021b).



*A bag (small administrative unit) feldsher on emergency call duty at Khuvsgul province*

### Key findings

- Surveillance of the drinking and sewage water quality and water disinfection processes have been conducted at the water source points and pumping points, as well as at wastewater stations of the health care facilities, quarantine and isolation facilities, and households of the ger areas.
- SARS-CoV2 had not been detected in the wastewater of the health care facilities, including the NCCD.
- The assessment of the current situation on WASH nationwide has not been conducted, and it is required for further improvement of the water quality.
- There is a need for developing and applying a guideline for detecting COVID-19 virus in the water treatment stations and a guide for wastewater disinfection by chlorine at the health care facilities.



*Intensive care room, Provincial General hospital*



# 5. COVID-19 IMPACT ON THE PROGRESS OF UHC AND SUSTAINABILITY

## 5.1 Service Coverage

Despite the COVID-19 pandemic, Mongolia's State Policy on Health has been the main policy framework for further improvement of the health system and the move toward Universal Health Coverage (UHC). The State Health Policy Implementation Plan for 2020–2026 defines the medium-term strategies for delivering health services while taking into account population density, geographical location, demographic structure, morbidity, and migration, as well as the health system goals for equitable,

accessible, in-demand, affordable, and high-quality services to Mongolians.

The policy makers and development partners expressed concerns that COVID-19 will impact the past achievements of the Mongolian health sector. The Universal Health Coverage<sup>9</sup> service coverage index (SDG [Sustainable Development Goal] indicator 3.8.1) was 45 percent in 2000, 61.8 percent in 2015, and 63 percent in 2019 (*Table 24*).

**Table 24:** SDG 3.8.1, UHC Service Coverage Index by Components, 2019

Country	SCI components				UHC Service Coverage Index (SDG 3.8.1)
	RMNCH (Reproductive, Maternal, Newborn, and Child Health)	Infectious diseases	NCDs (Noncommunicable Diseases)	Service capacity and access	
Mongolia	82	40	51	89	63

Source: *Tracking Universal Health Coverage 2021 Global Monitoring Report*

9. According to the WHO definition, Universal Health Coverage (UHC) is the assurance that all people and communities have access to health promotion and prevention, treatment, rehabilitation, and facilitation services, without financial or other barriers. In order to achieve UHC, it is necessary not only to measure certain indicators, but also to understand the barriers to accessing health care. The WHO defines UHC as consisting of three interrelated components: (1) the full spectrum of health services according to need, (2) financial protection from direct payment for health services when consumed, and (3) coverage for the entire population.



COVID-19 immunisation  
in rural Mongolia

Further, according to the Center for Health Development (2021), in 2020, the coverage of essential health care services was estimated at 85 percent, which is higher by 19 percent and 8 percent, respectively, than the world average (66 percent) and the regional average (77 percent) (HDC 2021a). However, due to COVID-19, there have been disruptions of essential health services that impact not only service coverage but also quality and financial risk protection.

Prior to the pandemic, according to Center for Health Development reports, the National Program on Maternal, Child and Reproductive Health for 2017–2021 and other programs have been implemented smoothly and corresponding indicators have been showing positive trends. However, during the pandemic, the maternal mortality rate has risen, which affects the level of UHC service coverage achieved. At the end of October 2021, the maternal mortality reached 56 women, of which 41 were caused by COVID-19 infections. The maternal mortality rate was 92.0 per 100,000 live births in 2021, which is triple that for 2020 (30.2 per 100,000 live births) level (HDC 2021c).

Overall, communicable and noncommunicable diseases (NCDs) remain the main burden in Mongolia. These ailments compromise patients’ immune systems and lungs and, together with the COVID-19 pandemic, placed a double burden on the population. In 2021, the prevalence of communicable diseases increased compared with the previous year (104.6 per 10,000 in 2020) and reached 1,757.2 per 10,000 people, due to COVID-19. Further, the NCDs remain the top killer in Mongolia, responsible for 69 percent (2020) and 61 percent (2021) of all deaths, annually. The probability of dying from four major noncommunicable illnesses (cancer, cardiovascular diseases, neurological conditions, and digestive system illnesses) among the population ages 30 to 70 is 41.5 percent, which is 23.2 percent higher than the world average (18.3 percent) and 25.3 percent higher than the regional average (16.2 percent), in 2020 (MOH 2021e). Furthermore, COVID-19 resulted in disruptions in health service usage, as shown in *Table 25* below.



**Table 25:** Hospital Admissions for Essential Health Conditions, 2019–2021

Diseases and conditions based on ICD-10	2019	2020	2021	Changes (2019 to 2021)
<b>Essential, excluding COVID-19</b>	401,397	325,535	256,588	-36%
Birth	79,580	77,716	73,253	-8%
Cancer	26,096	23,521	24,251	-7%
Communicable diseases	22,307	13,365	6,454	-71%
Congenital malformations, deformations, and chromosomal abnormalities	3,856	3,189	2,691	-30%
Heart diseases	19,319	19,198	17,063	-12%
Infant illnesses	7,865	7,091	6,347	-19%
Injury, poisoning, and certain other consequences of external causes	34,822	30,352	25,542	-27%
Kidney	8,698	9,434	6,895	-21%
Mental	16,828	14,591	13,136	-22%
Neurology	1,588	1,321	668	-58%
Pregnancy, childbirth, and the puerperium	47,733	44,672	37,298	-22%
Respiratory illnesses	132,705	81,085	42,990	-68%
<b>COVID-19 infections</b>	-	1,220	299,089	N/A
<b>Others</b>	527,872	503,982	363,590	-31%
<b>Total hospital admissions</b>	929,269	830,737	919,267	-1%
<b>Total mortality</b>	18,403	17,040	20,856	13%

Source: Hospital admission and mortality data of 2019 to 2021. Center for Health Development, Ulaanbaatar, Mongolia

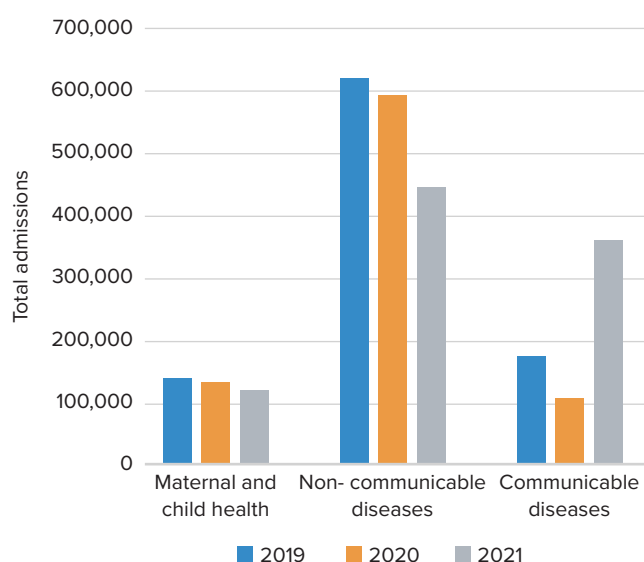
According to an analysis of the health indicator database compiled by the Center for Health Development, by 2021, hospital admissions for essential health conditions and services declined by 36 percent compared with the 2019 level, while inpatient care for other services dropped from 527,872 admissions in 2019 to 363,590 admissions by 2021, resulting in hospital admissions being reduced

by 31 percent. On the other hand, the vast majority of Mongolia's COVID-19 cases and most fatalities were registered in 2021 (*Table 25*). In other words, needed health services to address maternal and child health and noncommunicable diseases have been disrupted during the peak years of COVID-19 transmission, while admissions due to communicable diseases were on the rise (*Figure 34*).



# From December 2020 to April 2021, there was a sharp increase in the incidence of COVID-19 infection in Ulaanbaatar, resulting in low access to health care in urban areas

**Figure 33:** Total Hospital Inpatient Admissions by Major Disease Categories, 2019–2021



The survey conducted for this study found that after a domestic outbreak of COVID-19 in November 2020, one in three people who needed care did not receive health services. The main reasons included risk of being infected and socially restrictive measures (prohibition on leaving homes or one’s premises). From December 2020 to April 2021, there was a sharp increase in the incidence of COVID-19 infection in Ulaanbaatar, resulting in low access to health care in urban areas (WB, ADB and NSO 2021). One-third of the chronically sick participants in the survey reported difficulty accessing routine health care.

### Key findings

- Before COVID-19 pandemic, Mongolia had made substantive and promising progress to achieve the SDG health goals for Universal Health Coverage. Mongolia’s UHC index was 63 percent in 2019, which is lower than the global (66 percent) and regional (77 percent) indicators for 2019.
- However, the pandemic created further challenges, including a rising maternal mortality rate and declining usage of health services for both communicable and noncommunicable diseases.

## 5.2 Financial Risk Protection

Indicator 3.8.2 of the Sustainable Development Goals (SDG 3.8.2), on financial risk protection, measures the direct health payments families incur in relation to a household’s budget. The indicator summarizes the percentage of a country’s population with catastrophic health spending, which is spending in excess of either 10 percent or 25 percent of their household’s budget. The incidence of catastrophic health spending tripled from 2012 to 2018 and stood at 7.19 percent (at 10 percent threshold) and 0.08 percent of people affected by health-related impoverishment (under the poverty line of US\$1.90 per capita daily) (Table 26) in 2018. The percentage of the population pushed into poverty due to health payments remains below 0.5 percent of the population.

**Table 26:** SDG 3.8.2, UHC Financial Protection, 2012–2018

Proportion of population with large household expenditures on health as a share of total household expenditure or income		Proportion of population pushed below US\$1.90 (US\$ 2011 PPP) poverty line by out-of-pocket health care expenditure (%)	Proportion of population pushed below US\$3.20 (US\$ 2011 PPP) poverty line by out-of-pocket health care expenditure (%)	Period
10% threshold	25% threshold			
7.19	1.33	0.08	0.73	2018
4.49	0.91	0.17	0.87	2016
3.04	0.52	0.01	0.19	2014
2.16	0.29	0.03	0.30	2012

Source: World Health Organization. Global Health Observatory. <https://www.who.int/data/gho/data/themes/topics/financial-protection>

According to a WHO (2022) report based on Mongolia's household surveys covering seven years (2009–2018), the differences in catastrophic incidence between the poorest and richest quintiles, as well as between the rural and urban population, decreased during this period. The main drivers of households' direct health payment are medicine and inpatient care paid by users at the point of services. Further, the drivers of catastrophic spending differ by quintile. Households in the poorest quintile are driven into catastrophic spending by medicines, whereas households in the richest quintile are driven by inpatient spending the poorest households tend to seek inpatient care at primary health care and secondary level facilities, whereas the richest quintiles seek care equally across public tertiary and secondary facilities, as well private facilities (WHO 2022).

The household survey-based estimates of financial risk protection indicators in the health sector for Mongolia have not been updated with recent data from the COVID-19 years. However, the National Statistical Office recently estimated that households' spending during the pandemic year of 2020 shows that, after adjusting for inflation, there was about an 8 percent increase in the monthly average household expenditure for health in 2020, compared with 2019.

Studies and estimates emerged to provide further evidence on overall household spending behavior. The second COVID-19 wave affected the total population more than the first wave and would have hit the poorest households harder if social welfare benefits had not been increased. For the poorest households in Qquintile 1 the increase in spending did not occur until May—which is when the increased

benefits were distributed—and for the second poorest quintile, until June 2020. So, the spending of the poorest households responds directly to the distribution of social benefits—and related spending increased by 8 to 20 percent year-on-year during the spring, summer, and fall months of 2020. Households in Quintile 2 reduced their expenditure more heavily than households in Quintile 1. Their spending was higher than in the pre-COVID period only in September and October 2020. Monthly expenditure of households in the middle quintiles, 3 and 4, rose year-on-year during most of the pandemic period, except in March and during the second lockdown period. In some months, their spending increased by 32 percent (Quintile 3) and 38 percent (Quintile 4) year-on-year. Household expenditure of the richest quintile—5—has been reduced during both lockdowns to a greater extent and rose only modestly toward midyear.

The analysis also showed that despite the 2020 sudden economic shock in Mongolia, poverty declined somewhat in 2020, which can be attributed largely to social protection measures implemented by the government, as well as to preventive public health measures undertaken early on (NSO 2021c). However, according to a more recent study, the percentage of households reporting an increase in their income rose from 4 percent to 22 percent between Phase 3 (December 3 to 15, 2020) and Phase 4 (April 19 to 30, 2021) of COVID-19 times. Further, despite these improvements since December 2020, this income remains lower compared with pre-epidemic levels, and magnitudes of income losses are not trivial. Income recovery is also relatively slower among wealthier and urban households (WB, ADB and NSO 2021).

With views to ensuring financial risk protection against undue health payments, several policy measures have been initiated and continue to be implemented to date. First, the Law on Health assures that the government budget covers the costs incurred due to disasters and outbreaks constituting public health emergencies. Accordingly, the government ensures the provision of service delivery during public health emergencies.

As mentioned above, even before the pandemic, the out-of-pocket purchases of medicine and inpatient care constituted the major share of household health payments. With COVID-19, the health care system struggled to cover care for all COVID-19 cases. Hence, the costs of COVID-19 health services have been covered by the health insurance fund since March 2021, and related benefit packages and payment rates have been updated regularly. In 2021, a total of 535 billion MNT, or 44.1 percent of the HIF 2021 budget, was spent on only COVID-19 health services.

Moreover, in April 2021, when the first wave of COVID-19 took over the country, hospital payment rates for COVID-19 cases were further updated according to disease severity level, and additional types of health services, such as home isolation and home treatments, have been declared as covered by the health insurance scheme. With these policy updates, two important measures were enforced: (1) inclusion of copayment exemptions for children ages 0 to 18, citizens with no income other than a pension, citizens in need of social welfare, conscripts, mother (father) on parental leave, convicts, and the disabled; and (2) reimbursement of user charges for COVID-19-related medicines and supplies purchased while the patient is being admitted. This policy is applicable not only to COVID-19 care, but also to other types of health services covered by the government budget and health insurance scheme. For instance, 25 percent of payments for acute hospital cases were previously paid out-of-pocket; however, since 2021, the health insurance scheme has been covering 100 percent. Further, a new policy is effective since 2022, to curb the user fees applied by public hospitals and provide an upper limit to the collections not exceeding 5 percent of their total annual revenue.

Since 2021, the essential medicine reimbursement policy has been revised and the reimbursement rates for both essential services and conditions requiring a longer period of care have been raised from 20-to-50 percent of reference reimbursement price, in pre-COVID times, to 30-to-70 percent. As a result, use of essential medicines by insured people increased from 396,000 persons in 2020 to 568,000 people in 2021, an increase in usage of 43 percent (HIGA 2022).

In addition, the maximum benefit ceiling for the health insurance scheme was limited to 2 million MNT per annum during the pandemic peak, and this policy is no longer applicable. According to a HIGA report from 2021, cancer patients were provided the highest coverage for their health care costs.

#### Key findings

- During the COVID-19 pandemic, several health financing policy reforms have been initiated aimed at controlling the financial risks associated with ill health. The HIGA, as policy maker and administrator of the health insurance scheme in Mongolia, has been instrumental in implementing various policies to enhance the scope of services and further deepen the financial cost coverage.
- It is important to maintain the previous level of financial risk protection achieved before the pandemic, and the policy makers must monitor this important policy objective.
- However, with the decline of household income and the likely increase in out-of-pocket health payments for self-prescribed medicine and supplies, as well as disruptions to access of essential health services, the share of households with catastrophic health spending is likely to increase in Mongolia, as suggested by an annual household survey report issued by the NSO.

### 5.3 Financing for Vaccination

Mongolia's fiscal space to finance the COVID-19 vaccines and provide financial incentives for vaccination has been compromised by several challenges, including economic contraction (5.3 percent in 2020), a widening budget deficit, and rising external debt level. Nevertheless, the government of Mongolia has been fully committed to COVID-19 vaccination, taking measures in two principal areas: covering the cost of vaccination through the state budget, and addressing the cost through loans and grants via other foreign partnerships. Also, the government's decision to provide a financial incentive to the entire population—US\$17.5 (50,000 MNT) per fully vaccinated person (two doses)—significantly increased the required budget.

The National Deployment and Vaccination Plan (NDVP) was based on an estimation that the country's COVID-19 vaccination financing needs were about US\$33 to 77.0 million. This value of resources was only for the purchase of vaccines for immunizing 60 percent of the total population of Mongolia, with 4,549,676 doses of vaccines. In addition, other operational budgets were required to undertake the vaccination campaign throughout the country. To do this, the government allocated 20.3 billion MNT (equivalent to US\$7.2 million) to the implementation of the NDVP (local logistics, transportation, electronic vaccine registration, salaries, allowances, and other operating expenses of health and other public servants covered by the COVID-19 vaccination program) in the 2021 state budget. The country also secured participation in the COVID-19 Vaccines Global Access (COVAX) advance market commitment. In addition, the Mongolian government sought assistance from its development partners including the World Bank (US\$50.7 million), the ADB (US\$40.0 million), and the government of Japan (US\$15.8 million), among others.

The Parliament approved the macroeconomic and budgetary projections for 2022–2024. Overall, Mongolia's economy is on the road to recovery since the second half of 2021, is likely to stabilize in 2022, and is expected to grow at about 6 percent in the medium term (2022–2024). The fiscal deficit is expected to decline in 2022 and onward. These positive estimates are in line with macroeconomic outlooks provided by international financial institutions such as the International Monetary Fund (IMF). Accordingly, the government budgeted COVID-19 vaccines in the medium-term budgetary frameworks. Thus far, the fiscal space for vaccination appears to show a better situation than in 2020; however, longer-term financial planning and costing should be conducted to realistically assess the implications in terms of vaccination's shares in both general government and government health expenditures. Nevertheless, the development partners will continue to play critical roles in creating extra fiscal supports for COVID-19 vaccination financing.

#### Key findings

- Mongolia's fiscal space to domestically finance COVID-19 vaccination has been compromised by several challenges, including economic contraction (5.3 percent in 2020), a widening budget deficit, and a rising external debt level.
- Against this backdrop, the government started several initiatives to finance COVID-19 vaccination, showing its full commitment, and mobilized resources from multiple development partners, as well as from bilateral cooperation. In addition, the government prioritized vaccination within its annual and medium-term budget plans and made reasonable allocations accordingly.
- Going forward, there is a need to foresee medium- to longer-term challenges ahead and pursue a fully costed financial plan to seek for more fiscal space, both within and outside the country.



*Transporting cold chain equipment to vaccine delivery point*





# 6. LESSONS LEARNED

1. **Responsive legal and regulatory environment:** As the COVID-19 situation evolved, the legal and regulatory policies were updated within a short period of time to upgrade the organizational structure, operational management, and intersectoral collaboration during the public health emergency. A new law was adopted: “Law to Prevent, Control, and Reduce Impact of the COVID-19 Pandemic.” This law allowed more flexibility to mobilize more funds, repurpose staff, and reprioritize existing resources for better preparedness and control measures. Moreover, it regulates the resource generation for the required medical supplies by limiting export and supporting import through reduced layers of procedures.
2. **Integrated management of overall control and mitigation activities:** Organizational structures, roles, and core functions were assigned, and an oversight body was appointed. The oversight body built up a structure combining the disaster protection and incidence-based system (IMS) management for infectious disease, with the MOH providing leadership as the Operational Emergency Headquarters for the oversight body (State Emergency Commission). Technical teams and institutions have been operational, including the multisector team of IMS management, chaired by the NCCD. At the local level, every province has an Emergency Commission with emergency headquarters, which facilitates the nationwide control mechanisms.
3. **Successful application of internet and information technology in public service provision** information technology was key to pandemic control and mitigation activities, as well as in the education system.
  - **E-Mongolia** system has increased the efficiency of civil service provision, while also playing a key role in enabling a supportive environment for adherence to the quarantine regimes. The E-Mongolia system is a digital platform providing about 560 kinds of civil services online (the same as in person) to the people. Moreover, digitalization of civil/public services in an integrated digital platform is supporting reduction of the bureaucratic practices of civil servants.
  - **E-barimt:** The VAT registration system through receipt scanning application was used by scanning the QR codes for registration of people’s movement and contact tracing. To start with, there were different systems, including one for testing, another for vaccination, and a previously used health statistics collection system for registering clinical management of the confirmed cases. These were then integrated into one platform KHUR, where all information flow can be seen for testing, contact tracing, vaccination, and clinical management. This has decreased information asymmetry and made information exchange among individuals and entities easier.

## LESSONS LEARNED

- **TV and virtual classes.** The main mode of distance learning for children has been attendance of TV lessons. Although there has been criticism of distance learning for its issues with efficiency and accessibility (low attendance at the TV classes, difficulties in learning required content due to lack of internet access or devices), not only the education sector, but also other parties including international organizations, private entities, and parents were involved in the learning process. The distance learning capacity of the educational facilities and teachers was upgraded and could be developed further as an inseparable part of the teaching and learning modes.

#### 4. Achievement of higher rates of vaccination:

COVID-19 vaccination in Mongolia was organized with financial incentives and extensive information, education, and communication (IEC) activities, resulting in a faster pace. Mongolia's vaccine coverage with full doses reached 92.3 percent of the target population by June 2022, and subsequently the country is offering boosters in line with other countries. With development partners' collaboration, Mongolia ensured not only relatively sufficient volumes of vaccine supplies, but also the necessary infrastructure and equipment for their operational management.

#### 5. The importance of PHC is acknowledged

**widely:** The importance of meticulously organized essential health care services was learned. Although the country's achievement of UHC is positively compared with that of many countries in the region, the pandemic posed challenges in both health service coverage and financial risk protection. The maternal mortality rate increased during the pandemic, which undermined the best outcome in the country among the UHC indicators (till before the pandemic). The government made efforts to cover more services and a larger share of COVID-19-related health care costs, especially of hospital care and home treatment.



*Meeting with stakeholders at Umnugobi Regional Diagnostic and Treatment center, reviewing equipment provided by the World Bank project*

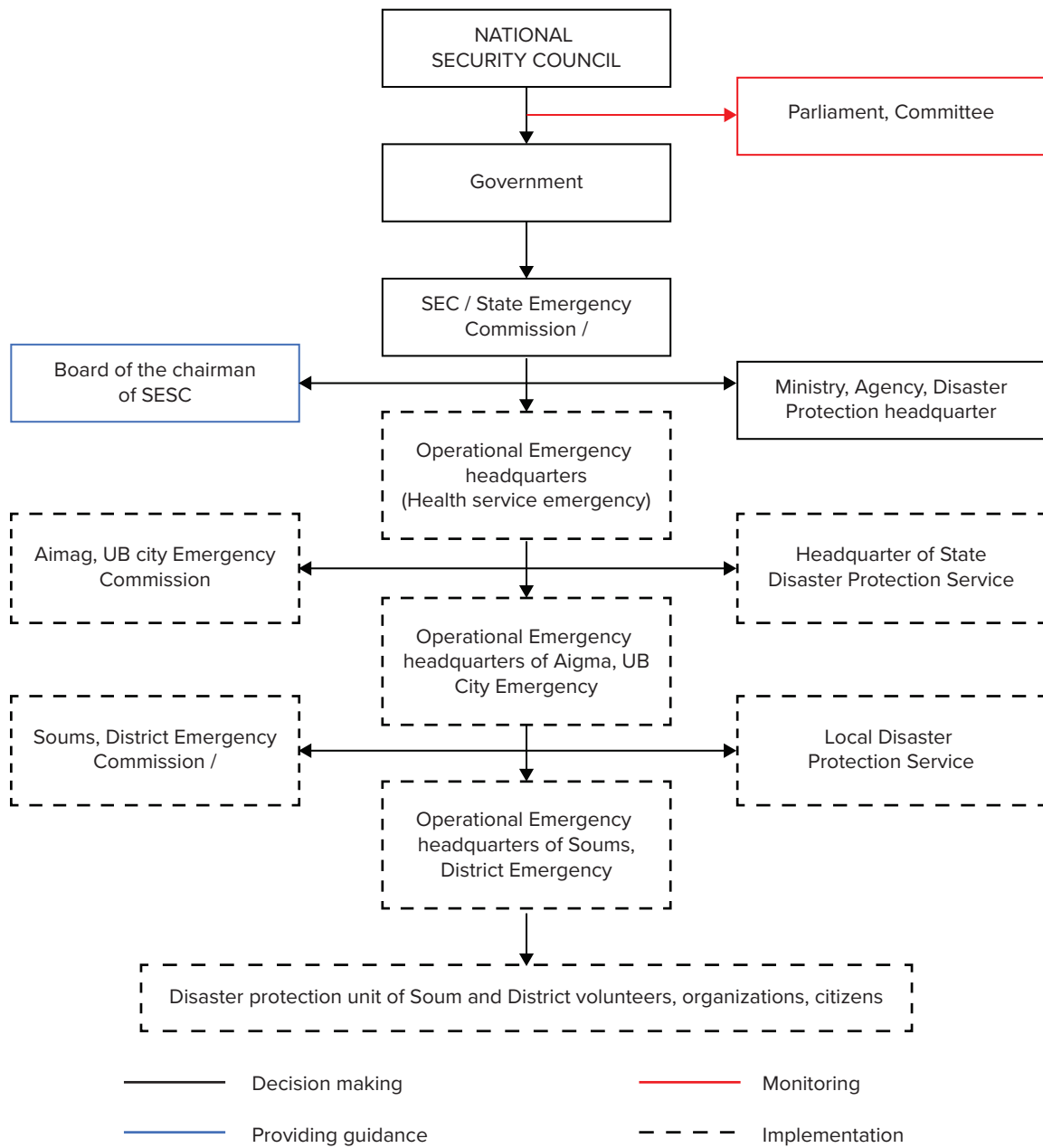
# ANNEXES

## ANNEX 1. SUMMARY OF THE METHODOLOGY USED

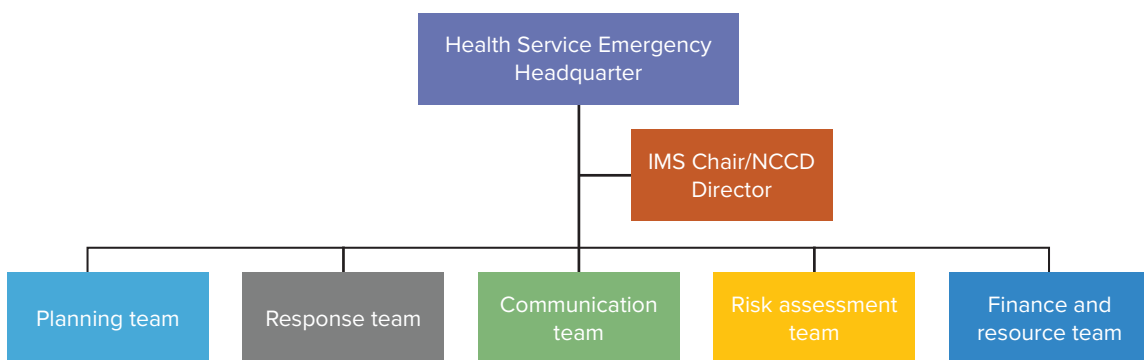
	Research topics	Desk review	Qualitative tools			Quantitative tool
			Interview with people from different organizations	FGDs among health care personnel	Pulse survey of top level managers	Online questionnaire for the patient groups
1	Introduction	16 <sup>a</sup>				
2	<b>Preparedness</b>					
2.1	Policy and governance: organizational structure	14				
2.2	Legal framework	4				
2.3	Control mechanism	4				
2.4	Health finance	8				
2.5	Health service delivery	4				
2.6	Physical infrastructure and workforce capacity	12				
3	<b>Response</b>					
3.1	Governmental response: lockdown, travel restriction, quarantine	16				
3.2	Testing, contact tracing, isolation	12				
3.3	Risk communication and information disclosure	6				
3.4	Health system response: primary care and hospital response	15				
3.5	Human resources for health	7				
3.6	Ensuring access to essential health services	6				
4	<b>Public response</b>					
4.1	Social distancing, personal hygiene, and social norms	7				
4.2	Trust in government and social institution	3				
5	Vaccination	29				
6	Protecting vulnerable people	19				
7	Innovation through leapfrogging	10				
8	Measures to contain COVID-19 with human capital perspective	21				
9	COVID-19 impact on the progress of UHC and sustainability	10				

a- number of reviewed files

## ANNEX 2. GOVERNING BODIES AND THEIR RELATION DURING COVID-19 PANDEMIC



## STRUCTURE OF IMS



Source: Law on Disaster Protection, Action Plan, NEMA, 2020

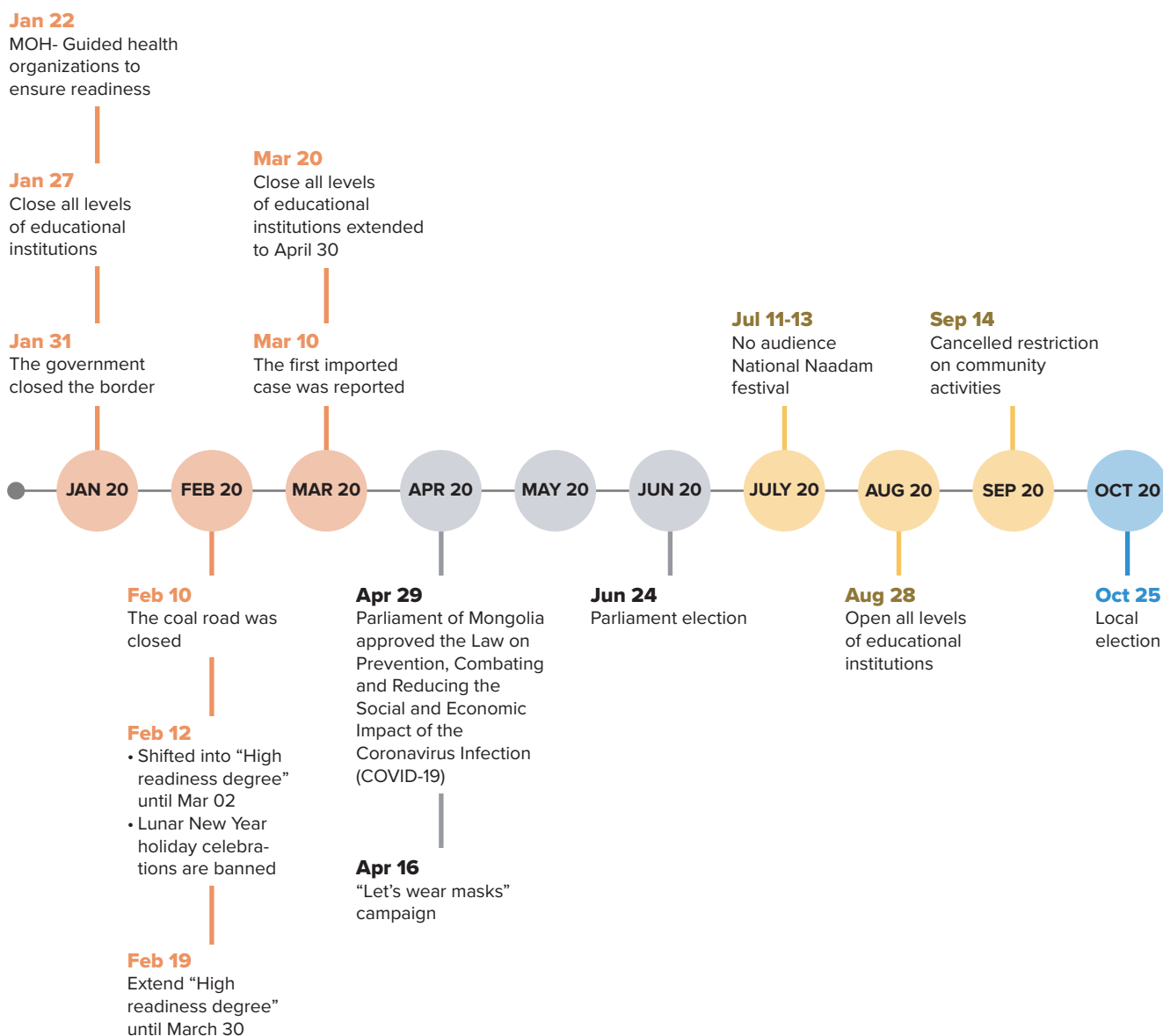
## ANNEX 3. NUMBER OF HEALTH ORGANIZATIONS, 2020

Service delivery Levels	Health organizations	Aimag	UB	State total
Primary health care providers	Family health center	78	131	209
	Village health center	1	5	6
	Soum health center			
	A level (up to 2,000 population)	54		54
	Б level (2,001–3,000 population)	123		123
	B level (3,001–4,500 population)	145		145
Secondary level of health care institutions	Local general hospital	6		6
	Aimag general hospital and regional diagnostic and treatment center	21		21
	District general hospital		4	4
	District public health center		9	9
Tertiary care centers	Specialty center	11	3	14
	Specialized hospital		12	12
Others	Delivery house		3	3
	Emergency center		1	1
	Private clinic	402	1,088	1,490
	Private hospital with beds	109	132	241
	Sanatorium	51	51	102
	Medicine supply organization	75	275	350
	Drug factory		40	40
	Pharmacy	639	974	1,613
	Special purpose hospital	14	5	19
	Others	73	40	113
	Total	1,802	2,773	4,575

Source: Health Indicators, Health Development Center, 2020

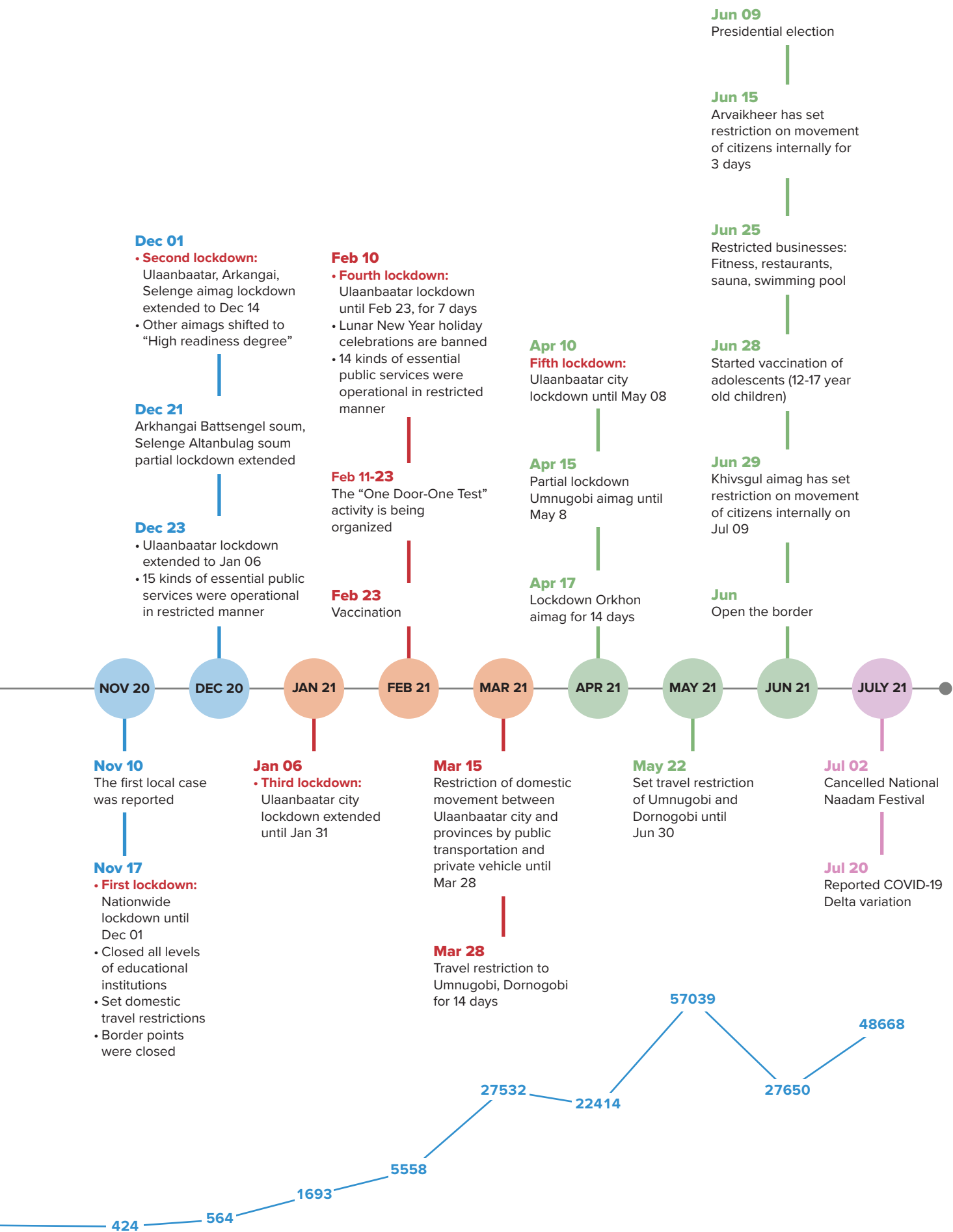


## ANNEX 4. LOCKDOWN AND MOVEMENT RESTRICTION TIMELINES

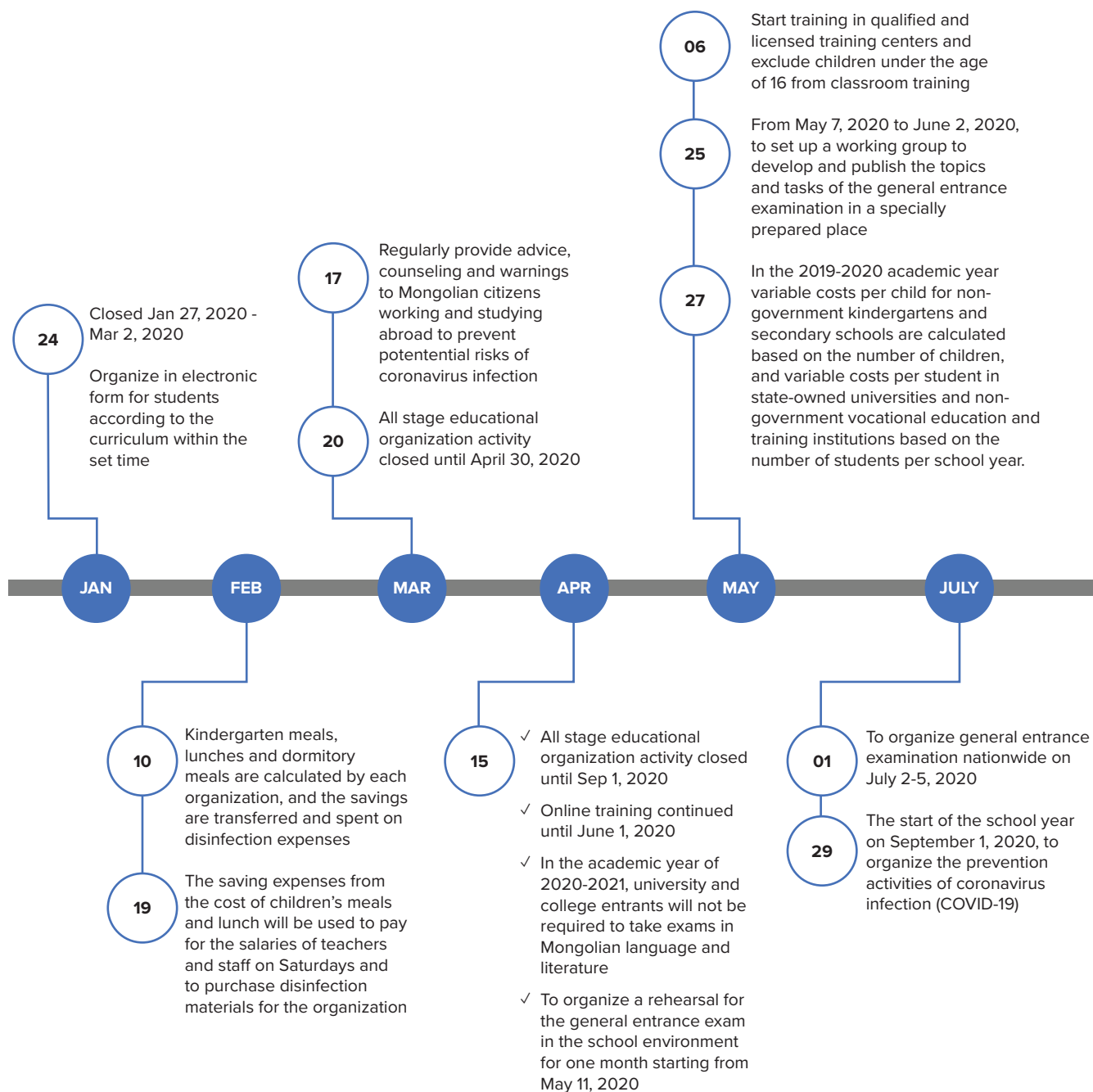


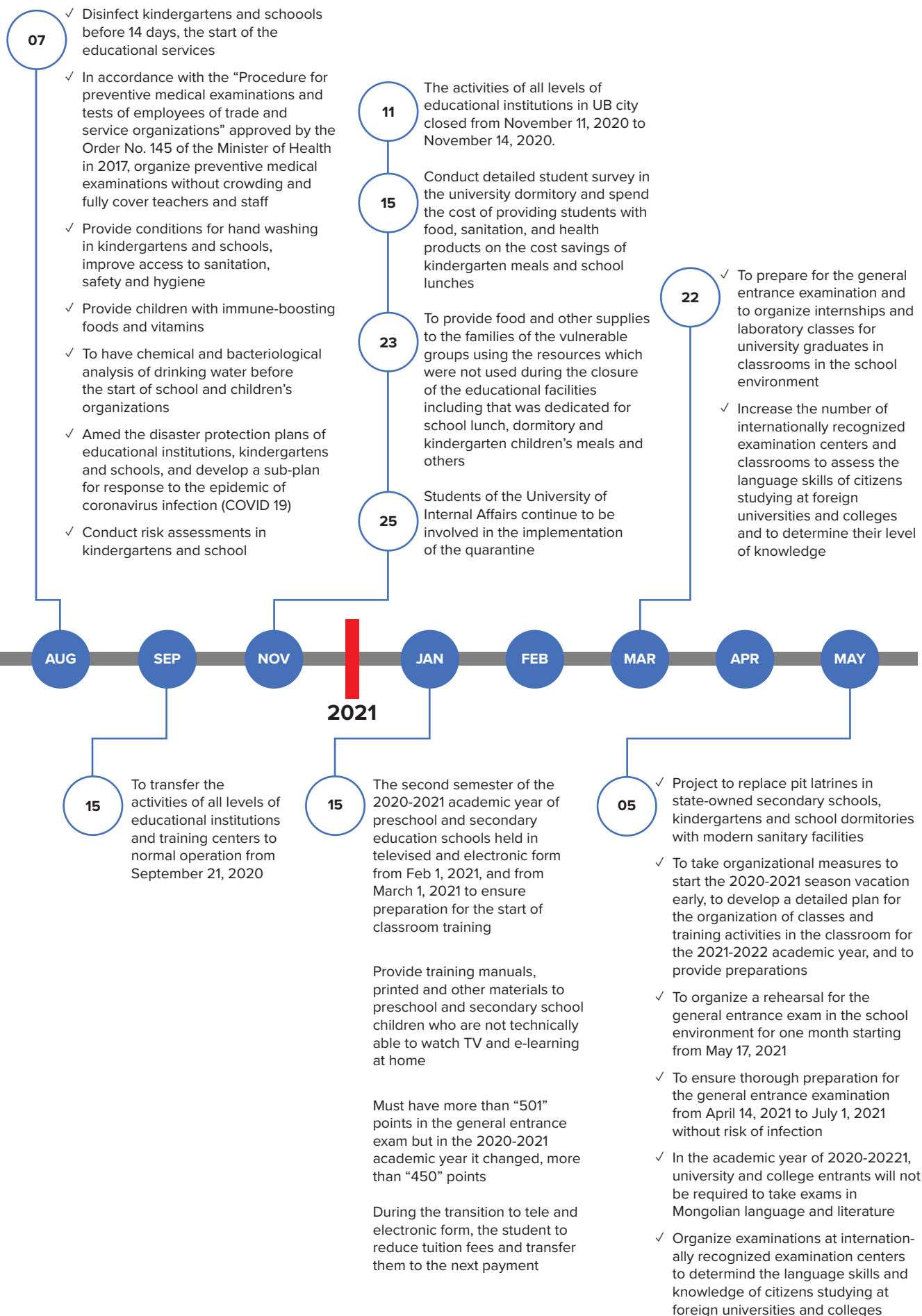
Confirmed cases by month





## ANNEX 5. TIMELINE OF MEASURES IN EDUCATIONAL SYSTEM OF MONGOLIA





## ANNEX 6. DEVELOPMENT PARTNERS: SUPPORT OVERVIEW

International development organizations including the WHO, UNICEF, WB, ADB, and others conducted many activities to support the health sector through implementation of a number of projects intended to contribute to the government's actions to combat the pandemic through socioeconomic and health sector policies.

The case study interview respondents noted that, from the beginning of the pandemic, the WHO provided very effective technical support in guiding the government's organization of the relevant actions to prevent the spread of COVID-19, deploy vaccination, build laboratory capacity, and control the infection.

This support was dedicated to building capacity during the preparedness phase of the public health emergency; improving primary health care services; preventing infection; contributing to the supply of PPEs, oxygen supply units, and vaccine doses; building vaccine storage units; improving cold chain conditions; and improving information distribution and knowledge about the vaccine among the population.

Interview respondents mentioned that the government policy tended to favor using donations for training and technical support. Therefore, the training of health care professionals and distribution of information and knowledge among the people were funded mostly by the WHO and UNICEF. The WB is also planning to implement community engagement and capacity-building activities through single-source contracts with the main implementing agencies.

The loan projects from the WB and ADB were directed toward procurement of medical equipment and investment for the longer term.

For instance, the WB-funded project for COVID-19 undertook procurement of about 2,500 pieces of 20 kinds of medical equipment, along with the necessary specialist training. This equipment includes treatment, laboratory, and nursing devices.

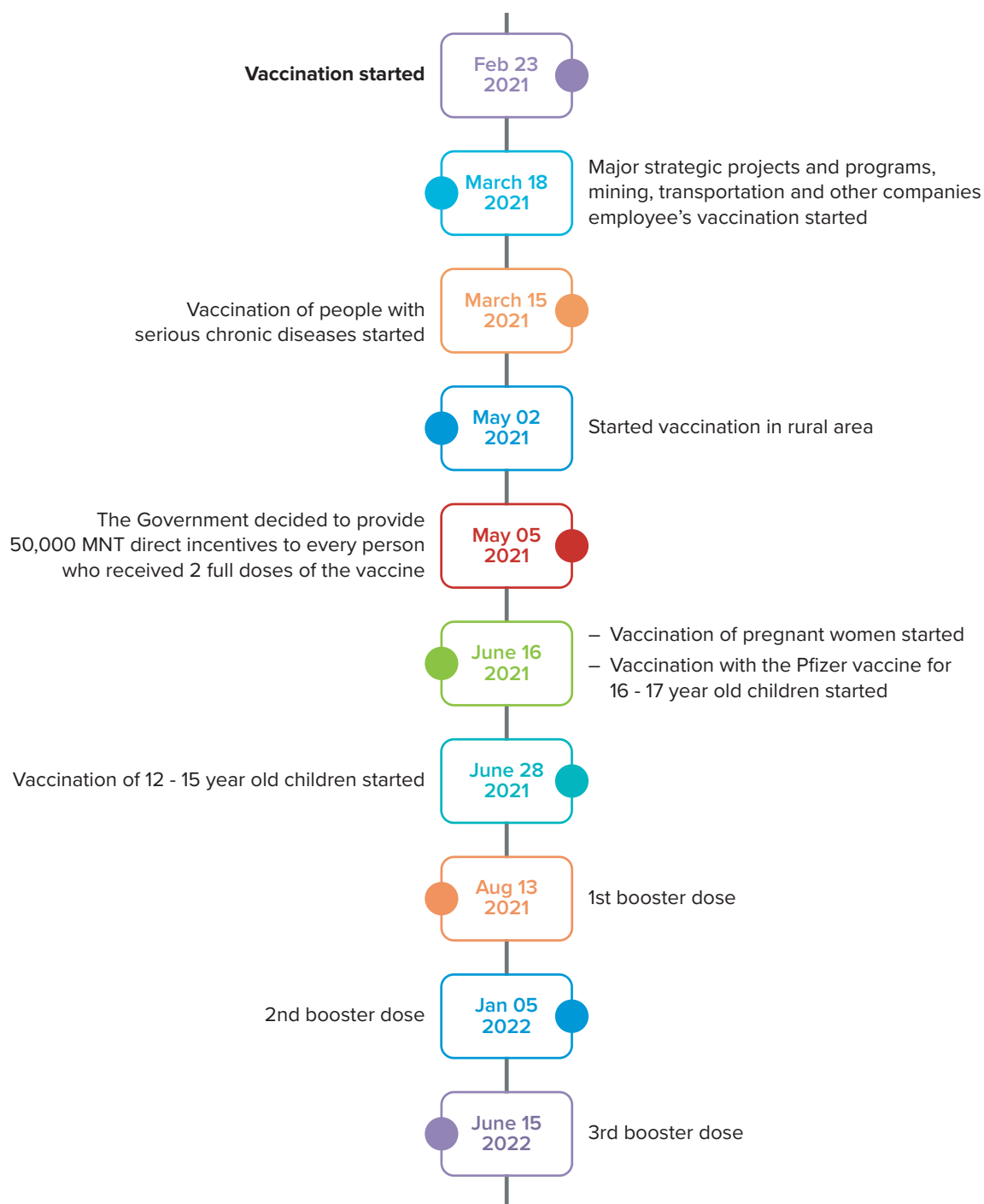
Moreover, the WB and ADB projects provided support in increasing the number of equipped ICU beds (about 455 beds) for aimag and Ulaanbaatar city hospitals.

The first ECMO machine procurement was funded by the WB. The new maternity and children's hospital located in Khan Uul district (US\$6.7million) and the university hospital (US\$4.5 million) located in Bayanzurkh district were supplied with medical equipment and devices for health care services and COVID-19-related care. Further funding of US\$4.55 million for cardiological service equipment and devices was provided to the Third Central Hospital for the reduction of cardiac disease-related deaths.

A number of outreach workers from the Red Cross and UNICEF have contributed during the pandemic period.



## ANNEX 7. VACCINATION TIMELINE, 2022



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