Mongolia: a primary health care case study in the context of the COVID-19 pandemic

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Executive summary

This case study examines primary health care (PHC) in Mongolia in the context of the COVID-19 pandemic between March 2020 and mid-2021. Mongolia took step-by-step action to respond to COVID-19 as cases were reported globally at the beginning of 2020. The immediate response was to close the border with China and ensure readiness to prevent a nationwide outbreak. While the first imported case of COVID-19 was reported on 10 March 2020 (1), the first domestic case was not confirmed until 11 November (2). After this date, the virus spread rapidly.

Limited preparation during the 12 months to March 2021 and a highly centralized communicable disease management approach challenged health care delivery. However, the government’s effort to increase vaccinations helped protect the population from serious illness. The National Center for Communicable Diseases (NCCD) was responsible for introducing measures to ensure pandemic readiness, but it placed a disproportionate focus on medical services.

After the first locally acquired case was confirmed, three policies restricting movement were introduced between November 2020 and February 2021, alongside a strategy to reduce infection through surveillance of target groups. From February 2021, mass testing efforts were introduced among all households in the capital to detect cases and revive the economy. However, infections increased sharply after the mass-testing exercise when restrictions were lifted across all sectors.

When cases began to increase, the health care burden shifted to primary care service providers due to insufficient beds at referral hospitals. These providers faced significant challenges due to inadequate preparation alongside a lack of funding, human resources and exchange of information. Despite limited support from administrative organizations, however, primary care service providers cooperated with Emergency Commissions at the local level to share the COVID-19 caseload. Primary care providers carried over 60% of the total workload (3), with a focus on the treatment of mild cases and surveillance, relieving the burden on hospitals that had become overwhelmed amid the rapid rise in infections.

A further challenge was that disaster and communicable disease surveillance and response systems conflicted with professional practices and vertical decision-making structures, which created confusion and information gaps for health care providers and citizens. Prompt exchange of information was needed for immediate response actions and urgent decision-making during the outbreak, and yet inadequate data information systems and the centralized communicable disease management approach slowed down the decision-making process.
Executive summary

Primary care service providers, local Emergency Commissions and local government partnered to address such challenges through multisectoral cooperation, support and leadership. However, the rapid rise in infections in March 2021 suggested that pandemic preparedness efforts were insufficient and that plans were not being effectively implemented.

A key learning is that communicable diseases such as COVID-19 are best tackled not only by health care service providers but through coordinated efforts across sectors and with strong community involvement.
Introduction and national context

Drawing on desk-based document review with consultations with stakeholders from across the health sector, this country case study examines PHC in Mongolia in the context of the COVID-19 pandemic from early 2020 to mid-2021. Using the core components of the 2018 Astana Framework as a guide, case study examines the pandemic response across: 1) primary care and essential public health services; 2) multisectoral collaboration; and 3) community engagement (4).

Mongolia had an estimated population of 3.3 million people in 2020, with around 45% living in the capital city of Ulaanbaatar (5). The country operates under a system of parliamentary governance, whereby the government makes all policy decisions and local governments have limited authority. The health system is centralized under the Ministry of Health (MoH) at the policy level, but it is managed at a local administrative level. Most health care providers are state-owned and have adequate input indicators such as per capita human resources for health, hospital beds and medicine supplies. In 2019, essential health services were provided to 63% of the population (6). Life expectancy at birth was 70 years in 2020 (7).

The health sector is financed under a hybrid system that draws on both the state budget and social health insurance. According to World Health Organization (WHO) data from 2017, over 90% of the total population were covered by social health insurance at that time (8). In 2019 out-of-pocket payments accounted for 35% of total health care expenditure (9). The state budget covers the full costs of health care services for infectious diseases, emergency health care and primary care.

Governance and policy frameworks to manage COVID-19

In January 2020, as soon as the first cases of COVID-19 were reported globally, Mongolia closed its border with China and activated its public health emergency response system. According to the Law of Mongolia on Disaster Protection (revised 2017) (10), responses to disasters and communicable disease outbreaks are overseen by several government bodies (Fig. 1 - next page).
The Surveillance Unit of the National Center for Communicable Diseases (NCCD) is responsible for responding to communicable diseases at the national and capital city levels, while the Communicable Disease Division within the Surveillance Units of general hospitals are responsible at the local provincial level. The decision-making process follows a unified vertical structure: the State Emergency Commission (SEC) makes decisions at the national level; and Provincial, Capital City, Soum (a small administrative unit of governance) and District Emergency Commissions make decisions within their respective
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territories. Health care organizations provide professional support in communicable disease decision-making. For instance, the MoH is a member of the SEC and the Ulaanbaatar Health Department and other hospitals are members of the Provincial and Capital City Emergency Commissions. The Chair of the SEC is ultimately responsible for decision-making.

The government imposed restrictions on the operation of specific sectors in March 2020, with the purpose of protecting private entities and businesses. The Law on Pandemic Preparedness and Response was passed by parliament in April 2020 (11). To prevent the spread of COVID-19, a decision was made to close the border with all countries and to place repatriated citizens in isolation for 14 days.

Multiple orders, decisions and policies were developed to ensure preparedness for the outbreak of communicable diseases. However, the main focus of these measures was on referral hospitals and the NCCD. Moreover, despite efforts by the Emergency Commissions to develop a COVID-19 preparedness plan and deliver training, these were often not applied in practice during 2020 and 2021. For example, even though temporary guidelines were developed and approved in March 2020 for health care delivery during COVID-19, stakeholders reported that guidelines were unclear. This resulted in uncertainty among hospitals and primary care service providers on matters such as patient referrals, home treatment and monitoring, and testing and diagnostic capacity at the local level.

Initially, the case detection strategy involved surveillance, isolation, clustering of close contacts, and treatment of COVID-19 patients. As the number of cases was low, mass testing was utilized to suppress outbreaks during three periods of movement restriction. However, cases increased rapidly when all operational restrictions were lifted. By March 2021, the caseload had grown to the extent that prepared hospital beds were no longer sufficient and additional beds were needed.

The NCCD, which had sole responsibility for surveillance in the capital, also became overloaded due to insufficient human resources and a lack of communicable disease surveillance structures within district health care facilities. Primary care service providers took on the main burden of surveillance under the instruction of the provincial health departments, as well as the treatment of mild cases where patients remained at home. COVID-19 case numbers rose rapidly from March 2021, when the spread of the disease intensified (12,13).

Mongolia’s highly centralized communicable disease management system collapsed and needed to be reorganized. Decisions by the SEC, and the Capital City and District Emergency Commissions contradicted the guidance and organization of health care services approved by the MoH, which resulted in confusion and uncertainty among health providers and citizens. For example, stakeholders reported that the MoH-issued procedure for patient referrals conflicted with instructions issued by the Capital City Emergency Commission to hospitals to obtain permission from the SEC to transfer patients using hospital vehicles.
Funding and allocation of resources

A 2011 health law (14) stipulates that funding for the prevention and management of communicable diseases shall be provided to referral hospitals such as the NCCD from the state budget. However, this centralized MoH funding proved insufficient during the 2021 rapid outbreak of COVID-19. As such, a decision was made in May 2021 to provide funds for immunizations and home treatment from the Health Insurance Fund to support primary care providers. Funds were allocated from the state budget for key health costs incurred in 2020 and 2021 as part of the pandemic response, including for drug and medical supplies and additional salaries and bonuses along with PPE for health workers (15). The majority of the reserve fund budget was allocated to secondary and tertiary hospitals.

A policy decision was also made in 2020 to double the funding for family health centres (FHCs). Although this funding was not initially intended for COVID-19-related costs, it was sufficient to enable FHCs to manage their own financial resources for pandemic preparedness. However, some investment decisions during 2020 and 2021 contributed to delays and inefficiencies, such as the overloading of laboratories in the capital city following mass testing (16).

How primary care and essential public health functions are responding to COVID-19

Scaling up and managing critical emergency services

Governance

According to the Law on Disaster Protection (revised 2017) (9), the National Emergency Management Agency (NEMA) and SEC are responsible for public health planning and health emergency response. Because the SEC is chaired by the Deputy Prime Minister and a local governor, who are both political officials, a key challenge was the tendency for politicized decision-making. For example, the SEC and the Government of Mongolia introduced a mass-testing campaign despite limited MoH and provincial health department support for this policy. Moreover, it was reported that health professionals’ recommendations were not always followed by the SEC, despite representation of health facilities among the membership.

Another reported challenge was the general nature of provisions within the national disaster protection law (revised 2017), which contributed to different interpretations among stakeholders and different decisions. For instance, there are no clauses on the involvement of health care facilities in the event of a pandemic outbreak. Instead, only general clauses are included on the rights and responsibilities of the SEC (9).
Preparation and clinical guidelines

After border closures in early 2020, further measures were taken to prepare for a public health crisis. The MoH issued guidelines and instructions, and delivered training and demonstrations for health sector stakeholders. The vast majority of training was conducted online using Zoom, with regular attendance from health facilities representatives. However, stakeholders reported that when the first cases of community transmission were recorded from November 2020, health facilities faced challenges to implement the theoretical knowledge gained from the training to treat patients and refer them to higher-tier hospitals. Furthermore, clinical guidelines and orders provided by the SEC and the MoH changed weekly depending on the national situation. There was confusion and a lack of understanding within health facilities, with health workers overburdened by the rising caseload.

A fragmented data system

Stakeholders indicated that there was no integrated platform for information-sharing within or between health facilities or for decision-making based on rapid data analysis. The SEC, MoH, the National Health Development Center, health projects and local governments developed separate software in their respective territories, which meant that health facilities were further burdened by needing to register all of their data using each platform.

As it became evident that an integrated system was needed to capture data as part of the response to COVID-19, a privately-owned web-based COVID-19 surveillance system (tandalt.gov.mn) was introduced.

Expansion of the health workforce

PHC packages determine human resources, finance and infrastructure for health. Additional human resources were needed in 2020 and 2021 to respond to the health emergency, and yet weaknesses within private health facilities meant that this sector could not be relied upon for rapid expansion. In response, resources were used from the education sector: schools and kindergartens were used as isolation centres and additional human resources were utilized to support health care delivery.

Other innovations were also introduced to manage caseloads – a health call centre was set up in some provinces, and the Google Meet and Zoom applications were used to monitor patients who were isolating and receiving care at home.

The impact of COVID-19 on the continuity of essential services

As COVID-19 cases rose in 2021 some primary care activities were affected due to shortages in the health workforce. For example, one stakeholder indicated that their family health centre with 10–22 staff reduced the provision of PHC services by approximately 40% and focused instead on ensuring continuity of neonatal home visits, online prenatal care checkups and routine immunizations. Health facilities fully utilized their human resources for home treatment and surveillance
How primary care and essential public health functions are responding to COVID-19

of COVID-19 patients, which resulted in shortages in other health care services. These findings suggest a need for improved human resource categorization in health emergencies including the allocation of doctors and specialists to basic services such as immunizations and prenatal checkups.

As of May 2021, 37.4% of total confirmed cases were being managed in public and private hospitals for the treatment of severe and less severe cases, while 62.6% of (milder) cases were being managed by primary care facilities either through home care or online consultations (3) (see Table 1).

Table 1. Treatment of COVID-19 patients by type of health service

<table>
<thead>
<tr>
<th>2021</th>
<th>Hospitalized</th>
<th>Home care provided by PHC facility</th>
<th>Online consultation provided by PHC facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>44.2%</td>
<td>55.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>April</td>
<td>25.9%</td>
<td>9.6%</td>
<td>64.6%</td>
</tr>
<tr>
<td>May</td>
<td>37.4%</td>
<td>18.7%</td>
<td>43.9%</td>
</tr>
</tbody>
</table>

Source: General Authority of Health Insurance, 2021 (3).

Licensing and accreditation

Mongolian medical professionals must renew their licences through collecting some credits or taking exams every three years to continue their clinical practice. During the pandemic, expired licenses of the medical professionals were automatically extended. An online approach to health facility accreditation was used in 2020 and 2021.

Protecting and incentivizing the health workforce

Mongolia has a total of 52,285 medical professionals, of which more than 30,000 are civil servants working in the public health sector (17). These professionals have a fixed salary system, regardless of their type of profession, which is a disadvantage when benefits and incentives are needed to motivate workers. Moreover, the high proportion of medical interns and specialists within the medical workforce was misaligned with the primary care health workforce needed to ensure continuity in essential services. In addition, while there are 11,682 doctors working in the health system, the country has a shortage of intensive care physicians (17).

To support response efforts, the salaries of health care workers were tripled for those working directly with COVID-19 patients. Workers were also provided with advance payments from the state budget to meet their mortgage commitments, and were given quick access to bank loans and a one-time bonus in case of
infection while on duty. After the outbreak in November 2020 subsided, these benefits were withdrawn, and hospitals operated under standard (pre COVID-19) protocols and payments.

As COVID-19 cases were reported in hospitals from December 2020, infections among doctors and medical professionals became more common. Hospitals began to limit their activities and demand PCR tests from patients. Citizens needed to complete a PCR test first to receive care, which made it difficult for patients to access timely health services. Early actions were taken to protect health workers from infection through COVID-19 vaccinations and allocation of designated funds for PPE. Such efforts to protect the workforce also helped to limit human resource shortages when infection rates were high and thus facilitated continued health service access.

**Adapted PHC service delivery models**

FHCs are limited in size and therefore many premises lacked the space to isolate COVID-19 patients and maintain social distancing. In response, FHCs changed their service delivery model. Facilities offered phone counselling, they used a rotation system for facility access among patients and babies who needed routine vaccinations, and they provided outreach services for neonatal visits as well as online pregnancy checkups. Health staff were divided into groups to deliver services for high-risk and COVID-19 patients. In addition, FHCs shifted from face-to-face to online consultations for patients with noncommunicable diseases. FHCs cooperated with pharmacies to deliver prescribed drugs to patients at home within 24 hours and elderly patients were able to access discounted medications. Uptake of health services increased after movement restrictions were lifted. However, the lack of an integrated health information system hampered service monitoring and coordination efforts.

**Managing referral systems to ensure appropriate distribution of service load**

**Service delivery and coordination**

During the rapid increase in infections in 2021, primary care service providers carried a high patient load, providing accessible services at low cost. However, fragmentation and lack of cohesion between government agencies regarding patient referrals proved to be a major challenge during the COVID-19 pandemic in 2020 and 2021, contributing to misunderstanding between health care facilities and the public.

The COVID-19 pandemic highlighted that the referral system mainly focuses on state-owned hospitals rather than coordinating with primary care providers. Moreover, decisions were made by the SEC with little assessment of human resources, finance and infrastructure implications.
Leadership from local government

In some rural provinces there was strong leadership within health facilities. The Provincial Emergency Committees made decisions based on health facilities’ recommendations and, as a result, adequate measures were taken to limit spread. This experience at the provincial level demonstrates the importance of cooperation and support between the Emergency Commissions and health facilities.

How multisectoral policy and action are responding to COVID-19

Historically, each government sector sets its own priorities and policy objectives and it has been challenging to integrate these. A budget planning methodology linked to the Sustainable Development Goals (SDGs) was piloted in the health sector from 2019: the Budget Law (18) defines the performance indicators for the current year’s budget using the SDGs as a framework and it aims to consolidate policy and establish control through financial mechanisms.

The health sector mainly focuses on universal health coverage (UHC) with an aim to align with the goals of the education and social protection sectors to address the social determinants of health. For instance, child malnutrition is a key issue and weakened immune systems caused by malnutrition is a key driver of child mortality, particularly among poor and vulnerable communities. An initiative to provide micronutrient powder (MNP) through the primary care system introduced through the SDGs budget planning process demonstrated the potential impact of integrating health and social protection objectives (19). Another example is the government’s goal to become a so-called digital nation and its pursuit of both information exchange between sectors and prompt delivery of public services to citizens (20).

Mongolia has a history of multisectoral initiatives, such as the National Police Agency’s practical public awareness activities in 2019. The COVID-19 pandemic and response efforts affected all sectors of society, including government services, private sector organizations and citizens, with impacts including the closure of schools and kindergartens in the education sector and loss of income in the business sector.

Coordinated leadership and governance was necessary for multisectoral cooperation mainly delivered by district administrative units. This approach proved effective for assessing available sectoral resources, setting operational priorities, defining roles and responsibilities, and providing integrated management during the pandemic. In contrast, at the primary care level, provincial and district health facilities lacked unified management and adequate exchange of information, and consequently were overburdened and operated inefficiently.
Following a rapid rise in cases in March–April 2021, the Emergency Commissions came to understand the importance of following and supporting recommendations from health care providers.

These experiences highlighted the importance of strengthening multisectoral cooperation to identify challenges, define roles and responsibilities, set coherent goals and mobilize essential stakeholders in decision-making around emergency preparedness and response.

**How communities are responding to COVID-19**

Prior to the outbreak of COVID-19, there was a common view among the public that health was the sole responsibility of health care facilities. However, with the introduction of policies restricting movement and increased morbidity and mortality, citizens’ engagement and participation in peer monitoring increased. Furthermore, every household and individual was actively involved in maintaining an infection control regime, and in better understanding and supporting doctors and other medical professionals’ work.

Stakeholders described how primary care service providers worked more closely with the community through at-home treatment of mild cases, contact tracing, testing and patient referrals. Consequently, the pandemic may have improved public understanding of and engagement with health services.

There are only a small number of volunteers in the health sector trained by international organizations. Due to a lack of incentive mechanisms, however, it was challenging to support the participation and engagement of these volunteers during the pandemic response. While some volunteers – especially retirees – were interested in participating, many were unable to contribute beyond phone counselling due to their vulnerability to the virus. Future investment may be needed to improve the management of volunteers and their training and incentives to support their participation.

The pandemic experience also highlights the important role of local governments in facilitating public engagement. For instance, stakeholders reported that, in some districts with high infection rates, the relevant local administration took action to organize and define responsibilities and to involve citizens in management at the *khoroo* and *bagh* (similar to subdistrict) levels. Using this approach, infected households received assistance with food supplies, garbage disposal and emotional support.

At the national level, the government used mass media channels and social media platforms to encourage public participation and disseminate information. Mobile phone operators also facilitated communication with the public, and the country’s high internet usage, mobile phone penetration and access to smartphones proved advantageous. The use of traditional media and social media proved particularly effective during the immunization campaign.
However, the government’s immunization plan was initially hampered by vaccine hesitancy and a desire to select the type of vaccine that they would receive. In response, the government took measures to incentivize uptake: citizens were asked to encourage others to get vaccinated, and celebrities and social influencers played a role. By May 2021, 95% of the adult population in Ulaanbaatar was fully vaccinated against COVID-19 (21).

Although citizens were reluctant to accept the sudden introduction of restrictions by the SEC and health care providers on the grounds that such measures were unplanned, there was a positive response to restrictions when advance notice was given and planning was evident. It was reported that the level of public acceptance and positive or negative attitudes depended on the consistency (or lack thereof) between decisions made by the SEC and those by health care organizations.
Conclusions and lessons learned

This case study highlights the critical role played by primary care providers in sharing the COVID-19 caseload with other tiers of the health system. Primary care providers played a pivotal role in surveillance, home treatment, monitoring and immunization. However, resources were redirected from other essential services to support the pandemic response, suggesting a need for improved resource allocation planning. Overall, the country’s preparedness plan lacked detail to support coherent mobilization of human, financial or material resources or enactment of an effective communication management strategy. Nonetheless, Mongolia’s enactment of new laws and guidelines in the early stages of the pandemic demonstrated the government’s capacity to respond quickly and adaptively.

The COVID-19 pandemic experience highlights a need to define the roles and responsibilities of organizations more clearly in decision-making, along with the supporting roles and responsibilities of stakeholders involved in implementation. The findings indicate that successful outbreak responses require sectors working together towards a common goal, supported by effective cross-sectoral governance. Health care and public health interventions are not the sole responsibility of the health sector. Mongolia has a history of multisectoral approaches to health challenges that can be leveraged to inform these efforts.

Leadership by local governments is important to enable multisectoral responses and community engagement. Findings from the case study suggest that local governments play a vital role in assessing and allocating resources across sectors, organizing the community, and following and supporting the recommendations of health care organizations.

However, fragmented information systems and siloed decision-making structures were identified as key barriers to PHC. In the pandemic response, the lack of an integrated platform for information-sharing within or between health facilities or for decision-making based on rapid data analysis hindered coordination, decision-making and data analysis.

Mongolia’s disaster protection law (revised 2017) does not specify which organization has decision-making authority in the event of a communicable disease outbreak. During the pandemic, this contributed to decision-making that lacked involvement from health professionals, which led to frequent corrections and amendments to response policies. Accordingly, changes to Mongolia’s Law on Disaster Protection (revised 2017) might facilitate strengthened involvement of health care organizations in future health emergencies.
References


This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization. In 2015, the Alliance commissioned the Primary Health Care Systems (PRIMASYS) case studies in twenty low- and middle-income countries (LMICs) across WHO regions. This case study builds on and expands these previous studies in the context of the COVID-19 pandemic, applying the Astana PHC framework considering integrated health services, multisectoral policy and action and people and communities. This case study aims to advance the science and lay a groundwork for improved policy efforts to advance primary health care in LMICs.