Qatar: a primary health care case study in the context of the COVID-19 pandemic
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Executive summary

Health systems based on strong primary health care (PHC) deliver better population health outcomes at lower costs (1, 2). In 2018, the Astana Declaration emphasized the critical role of PHC and outlined three core components: 1) primary care and essential public health functions; 2) multisectoral collaboration; and 3) community engagement (3). Drawing on this Astana Framework, this case study uses a literature review methodology to examine PHC in Qatar in the context of the COVID-19 pandemic between January 2020 and March 2022.

Qatar is a peninsular Arab country with a high-income economy backed by the world’s third-largest natural gas and oil reserves. As of March 2022, Qatar had a population of 2.82 million people (4). In recent decades, the government has invested significantly in its health care system. All health services are governed by the Ministry of Public Health (MoPH), while health service providers comprise two key state-funded entities offering universal coverage – the Primary Health Care Corporation (PHCC) and the Hamad Medical Corporation (HMC). In addition, Qatar has several private health care providers.

The first confirmed case of COVID-19 was reported on 29 February 2020 (5). From the outset of the pandemic, the government initiated plans at the national level and set up a COVID-19 governance structure to coordinate the response. As the pandemic evolved, the government invested significantly in enhancing its primary care infrastructure to manage COVID-19. It designated COVID-19 health centres, established drive-through testing and vaccination centres, enhanced surveillance and workforce and hospital capacity, and built new facilities. The impact of the pandemic on non-COVID-19 primary health services was reduced through the introduction of virtual consultation services, home medication delivery services, innovative applications such as Nar’aakom (we take care of you) to provide access to PHCC’s digital services and efforts to secure essential health care supplies.

A multisectoral National Qatar COVID-19 Response Plan was implemented at the pandemic’s beginning, outlining a clear set of actions required to ensure the population’s health, well-being and prosperity (6). Private sector health care services played a key role in supporting the pandemic response. Nevertheless, limited understanding of the virus and the emergence of waves in short succession had significant impacts on population health, despite the government’s efforts to support mental health.

From the outset of the pandemic, vulnerable populations were prioritized and closely monitored. The government held regular press conferences with senior national figures to update the public on the epidemiological situation, public health regulations and their obligations. Volunteers were identified across different stakeholders. Qatar also rolled out guidelines and policies to enhance psycho-social support for health care workers, families and the broader community. An economic support package of QAR 75 billion (approx. US$ 20.5 billion) was provided by His Highness, the Amir of Qatar (7). In addition, the
government contributed to the global pandemic response, shipping aid to 88 countries in addition to providing governmental and nongovernmental assistance amounting to more than US$ 256 million (8).

Overall, Qatar strengthened its emergency and disaster management plans and systems in preparation for the FIFA World Cup in 2022. Significant resources were invested and steps taken to develop evidence-based plans and strategies. Furthermore, investments were made to enhance the public health workforce in the years prior to the COVID-19 pandemic. All these efforts contributed to minimizing the impact of COVID-19.

Strategic multisectoral collaboration underpinned COVID-19 response efforts. The country reported comparatively fewer deaths and higher vaccine uptake rates than other countries in the Eastern Mediterranean region. The findings presented in this case study offer lessons to inform future pandemic preparedness.
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in the context of the COVID-19 pandemic

Introduction and national context

Health systems based on PHC deliver better population health outcomes at lower cost (1, 2). In 2018, the Astana Declaration emphasized the critical role of PHC (3). The three PHC components in the Astana Framework are: 1) primary care and essential public health functions; 2) multisectoral collaboration; and 3) community engagement. This case study examines PHC across these three components in Qatar in the context of the COVID-19 pandemic between January 2020 and March 2022.

Qatar is a peninsular Arab country with a high-income economy backed by the world’s third-largest natural gas and oil reserves. As of March 2022, Qatar had a population of 2.82 million people (4). Its population is very diverse with over 100 nationalities. Qataris constitute approximately 10.5% of the population, Indians 21.8%, Bangladeshis 12.5%, Nepalis 12.5%, Egyptians 9.4% and Filipinos 7.4% (9). Approximately 72% of the population are male (9). Qatar’s overall 2021 Global Health Security Index score for 2021 was 48.7, ranking it 49 out of 195 countries (10). Qatar scored higher than the global average in nearly all categories.

Qatar’s National Vision 2030 (QNV) includes four development pillars – Economic, Social, Human and Environmental (11). The human development pillar expresses the government’s ambition to develop a healthy population, both physically and mentally. The National Health Strategy (NHS) 2018–2022 directs the health sector towards progressing closer to QNV 2030 (12). Led by the MoPH, the NHS 2018–2022 is built around the triple aim of better health, better care and better value. It is an all-encompassing vision for the health sector, which sits above all other health strategies to guide the development of the health care system.

NHS 2018–2022 also aims to strengthen the integrated health care system, which delivers high-quality services through public and private health care institutions. It emphasizes multisectoral cooperation and consequently numerous partnerships have been and are being established with other sectors and institutions. Furthermore, the NHS prioritizes Health in All Policies with a view to improving the health of the nation by incorporating health considerations and implications into all decision-making processes. To this end, the government has adopted multisectoral projects and initiatives aimed at promoting health and the environment. One such example is the Healthy Cities Programme, which aims to provide the population with sustainable and healthier alternatives, leading WHO to recognize the municipalities of Doha, Al Rayyan and Education City as Healthy Cities (13).

To accomplish its vision, the government has made significant investments in its health system. In 2020, the government allocated QAR 22.6 billion (approximately US$ 6.20 billion) towards health care (approximately 11% of the total national budget) (14). Similar allocations were made in previous years. The
MoPH is the governing entity for all health care (public and private) services, with PHCC and HMC being the two key state-funded health care providers offering universal coverage. In addition, there are private health care providers.

HMC provides secondary and tertiary health care – it manages 12 hospitals (nine specialist hospitals and three community hospitals) as well as the National Ambulance Service and home and residential care services (15). The majority (approximately 70%) of the population are registered with the public-sector health care system and access services by paying a nominal fee of QAR 100 per year (approximately US$ 28). A small number of private clinics, hospitals and laboratories also operate in the country. Access to private health care is possible through user fees or insurance schemes.

PHCC is Qatar’s internationally accredited PHC provider and was established following an Emiri Decree (No. 15) issued in 2012 (16, 17). PHCC delivers comprehensive, integrated and coordinated person-centred primary care services in the community through its 28 health centres.

The World Health Organization (WHO) declared COVID-19 a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 (18). The first confirmed cases of COVID-19 in Qatar were reported on 29 February 2020 (5). Public health crises such as the COVID-19 pandemic cannot be managed by the health sector alone. Multisectoral efforts that involve public, private and civil society actors within and beyond the health sector are required for an effective response (19). Qatar’s history of political support and leadership commitment towards establishing a robust health care system with significant focus on PHC, together with continuous multisectoral collaboration to improve health outcomes, provided a strong pandemic response platform. In addition, Qatar has a comprehensive national action plan for health security involving multisector stakeholders (20).

From the outset of the pandemic, Qatar triggered plans at the national level and set up a COVID-19 governance structure to coordinate the response (Fig. 1) (21). Within this structure, each government agency was responsible for leading the response for the sector it served. The MoPH was responsible for health. The government also made large funding allocations to the overall health system (including primary care) to manage the pandemic.
As of 10 September 2022, a total of 3,898,595 COVID-19 tests were administered and 682 COVID-19-related deaths had been reported (22). Qatar’s vaccination programme, using two vaccine products BNT162b2 and mRNA-1273, started on 16 December 2021. By 10 September 2021, 89.9% of the eligible population had received two vaccine doses (23).

Key public health measures implemented included the suspension of travel into the country, a ban on mass gatherings, restrictions on non-essential business activity and mandatory face masks (24). These restrictions were lifted over four phases (25): phase one commenced on 28 May 2021 and phase four commenced on 30 July 2021 (26).

**Methodology**

Data were gathered using a literature review methodology to provide a descriptive overview of Qatar’s response to COVID-19. A literature search was undertaken in MEDLINE, Embase, the Cochrane Library and CINAHL databases using a combination of the following keywords – COVID-19, Coronavirus, SARS-CoV-2, primary care, primary health care, Qatar. The search was restricted to literature published in English between January 2020 and April 2022.
A Google search was also undertaken to identify publications and reports on: surveillance and contact tracing, testing, case management, infection prevention and control, epidemiological and outbreak analytics, logistics, risk communication, and community engagement. Governmental websites were searched for published documents such as policies, strategies and plans relevant to COVID-19. Other websites were also searched, such as media platforms, to identify relevant information on the pandemic response.

Internal documentation available to members of various committees supporting the national response were also reviewed. Where necessary, stakeholders/decision-makers were consulted to clarify details relating to their specific roles in the national pandemic response.

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

Governance

Based on a decision of the Minister of Public Health, PHCC’s Managing Director was assigned to lead the tactical leadership team for health services in the community. This team consisted of key partners, in addition to clinical and operational leaders from the MoPH, PHCC and HMC.

One of the most critical tasks of the team was to lead the process of planning and implementing sanitary isolation facilities, including planning and managing the capacity of these facilities, developing policies and procedures related to sanitary isolation practices and ensuring their compatibility with the services of the sector. Furthermore, the tactical leadership team was required to take quick and immediate measures to ensure the continuity and sustainability of basic services.

COVID-19 public health functions

Primary care infrastructure

To manage the pandemic, in April 2020 four PHC centres were designated as COVID-19 health centres (Gharrafat Al Rayyan, Um Slal, Muaither and Rawdat Al Khail Health Centres). They offered screening, testing and quarantine facilities for suspected cases (27). Individuals with mild or moderate symptoms were instructed to contact a dedicated hotline (16000) to be directed to one of the four health centres. On average, the hotline received 5000 phone calls per day, and during the peak of the pandemic in January 2022 managed over 20 000 calls per day (28). The hotline remained active at the time of writing in early 2023.

PHCC’s home health team maintained their usual service provision through face-to-face or phone consultations as needed, while ensuring that all preventive measures were taken for the safety of patients and employees during visits (29). A national dental emergency service was established (29) to provide urgent dental care for potential COVID-19 patients whose cases were being monitored by PHCC.
Drive-thru testing services were set up in cooperation with the MoPH and HMC (30). This service prioritized the elderly and people at risk from complications following COVID-19 infection. The testing services were expanded to 12 health centres at the end of 2020 and to 14 in mid-2021. In addition to providing drive-thru services in the designated health centres, COVID-19 polymerase chain reaction (PCR) tests were conducted in all 28 PHCC health centres.

PHCC, in collaboration with other stakeholders, also contributed to the success of two drive-thru vaccination stations. The Lusail Testing and Vaccination Centre provided vaccination services to more than 100 000 persons up to its closure on 28 February 2022 (31).

To enhance the vaccine programme, the Qatar National Convention Centre was transformed into a vaccination site. It was staffed by 700 individuals and operated 300 vaccination stations (32). The centre had the capacity to administer more than 25 000 doses a day.

Secondary and tertiary care infrastructure
Five hospitals were designed as COVID-19 facilities (33). This equated to 3012 acute beds and 749 intensive care (ICU) beds that were available to treat COVID-19 patients requiring inpatient treatment (21). At the peak of the pandemic in January 2022, occupancy rates stood at 75% for acute beds and 72% for ICU beds.

Additional surveillance, laboratory and quarantine facilities
Through collaboration between the MoPH, PHCC and HMC, mobile testing units were stationed in areas with the highest burden of COVID-19 cases to allow individuals access to testing close to home and to rapidly identify clusters so that measures could be put in place to contain the spread of the virus. PHCC school nurses were deployed to implement policies related to testing/self-testing and quarantine for students and staff of educational facilities.

New facilities were also built to bolster the services provided by existing health centres and hospitals. Together, they provided 37 000 isolation and 12 500 quarantine beds (21). Clinical operations for COVID-19 and non-COVID-19 patients were separate to shield health care workers and the general population from cross-infections.

Existing public laboratory facilities were boosted with additional capacity, enabling these laboratories together to process 20 000 PCR tests per day (21). As well as the central laboratory, two new COVID-19 laboratories and four rapid PCR facilities were set up at the country’s main hospital to support critical and urgent care.

To support the response, private health facilities were approved to conduct COVID-19 tests using rapid test kits. However, this was done in the late stages of the pandemic and mainly focused on easing the burden on the health system to meet the requirements of those travelling into and out of the country.
Information technology

Qatar made proactive efforts to adopt advanced IT solutions to respond to COVID-19. For example, an application called Kashif (detector) was designed and implemented to enhance contact tracing of confirmed COVID-19 cases (34). The application was installed on tablets and deployed across all health care facilities (including mobile units). It collected real-time demographic information, symptoms and the contact history of individuals who presented for COVID-19 PCR tests. If an individual tested positive, they were advised and instructed on quarantine procedures and treatment over the phone. Additionally, contact tracing was undertaken for close contacts. The Kashif application used scanning technology of national identification cards and one-time password (OTP) verification of mobile phone numbers to reduce data entry errors. Furthermore, the data collected using the software were integrated into other databases such as the public health care system’s electronic medical records system and national surveillance system systems. The data were used by various stakeholders such as the National COVID-19 Committee and the Scientific Reference and Research Team, who analysed the data and made decisions on the need for public health restrictions such as the closure of schools and shopping malls, and travel requirements.

A mobile phone application called Ehteraz (precaution) was developed and rolled out to the public to manage compliance with social movement restrictions and quarantine policies to reduce the risk of exposure to suspected or confirmed cases of COVID-19 (35). The application was managed by the Ministry of Interior and linked centrally to the public health care electronic medical records system. It used a colour-coded system to indicate an individual’s health status (red = infected; yellow = quarantine or reactive, grey = suspected; green = negative/healthy). Continuous improvements and updates were made to improve its functionality. Ehteraz was mandatory for all residents and visitors aged 18 years or above, and anyone 12 years or above if they are travelling/accessing locations without an adult. Only individuals with a green status on their Ehteraz application could access public facilities.

A final example of IT innovations is the Nar’aakom (we take care of you) mobile phone application launched by PHCC. This provides comprehensive digital management of health care issues, from the ability to check upcoming appointments to submitting a health card application online, facilitating access to services across all health centres (36). The application also offers a service for booking COVID-19 vaccination appointments.

Non-COVID-19 public health functions

As of 14 March 2020, scheduled appointments in all PHC centres were cancelled except for in well-baby and vaccination clinics, for urgent x-rays and for ultrasound appointments for pregnant women (29). To limit unnecessary exposure to risk and ensure continuity of health care access during the pandemic, virtual health services were set up across the primary and secondary health care system. Individuals seeking primary care services were routed to a primary care community call centre which operated seven days a
week from 07:00 to 23:00 (29). The call centre offered remote telephone and video consultations with a physician for patients requiring both routine and priority care.

Other than the five hospitals designated as COVID-19 facilitates, the remaining hospitals provided routine care to the population. During the pandemic, 92% of the overall public health care capacity was open for non-COVID-19 clinical operations (21), while private health care facilities were closed. Individuals requiring access to secondary care were offered an urgent consultation service for non-life-threatening conditions to speak to a specialist physician over the phone. The service covered 11 specialties for urgent care needs only – urology, cardiology, orthopaedics; general medicine; general surgery; dermatology; ear, nose and throat (ENT); obstetrics and gynaecology (OBGYN); dentistry; geriatrics; and paediatrics (37).

In March 2020, Qatar launched a home medication delivery service for prescriptions to reduce the risk of transmission to pharmacy staff and the general population. The service was established in collaboration with the MoPH, PHCC, HMC and Qatar Post (29).

COVID-19 had a significant impact on PHCC’s preventive services as the public were unable to access them. This resulted in all breast and colorectal cancer screening services being cancelled (approximately 9000 appointments), a 40% reduction in the utilization of well-baby clinics and a similarly steep decline in uptake of wellness services (38).

The health care workforce

On 15 March 2020, the workforce based at PHCC’s headquarters were instructed to work from home to reduce their risk of COVID-19 transmission (29). Elsewhere, all PHCC employees at risk were also instructed to work from home or they were redeployed to PHCC’s call centre. This included pregnant employees, and those who were immunocompromised or who had chronic conditions.

The appointment and employment of doctors, nurses and reception staff was expedited to cover staff shortages. Some existing workers were redeployed to designated COVID-19 facilities, while staff from private facilities were recruited by the public health care system on a temporary basis during the closure of private clinics. They were trained to support COVID-19 activities. This helped expand the country’s public health team 12-fold during the course of the pandemic and enhanced test, track and trace capability (32).

To ensure health care workers were updated and trained in accordance with the latest evidence available, the MoPH together with PHCC and HMC developed and disseminated information, clinical guidelines and protocols. They also undertook extensive programmes to train health care workers on the use of personal protective equipment (PPE) and enhance knowledge on the management of severe acute respiratory infections and COVID 19-specific protocols.
Health care supplies

There was a global shortage of health care supplies at the peak of the pandemic in 2020 and 2021. However, through various efforts at national level to establish inventories, forecast increased demand and establish regional and international supply mechanisms, Qatar did not experience any shortages in essential supplies such as PPE, essential medications and disinfectants. While logistics proved to be a challenge, Qatar was at an advantage due to its well-established modern logistics infrastructure. This helped to ensure the protection of both health care workers and the public were protected. Thanks to extensive efforts made by the government, Qatar was one of the first countries globally to receive supplies of COVID-19 vaccines in December 2020.

How the country is responding to COVID-19 through multisectoral policy and action

Governance

Qatar’s Supreme Committee for Crisis Management, chaired by the Prime Minister, responded rapidly to the emergence of COVID-19 in 2020. It established a National Committee for Coronavirus (NCC), chaired by the Minister of Public Health and with a membership that reflected a cross-government approach. Each member contributed to the development of the Qatar National COVID-19 Response Action Plan. The NCC then oversaw the implementation of the Plan and put forward recommendations to the Committee for Crisis Management.

Under the NCC, there were several priority actions that government agencies were responsible for to ensure an appropriate multisectoral response to the pandemic. These included: providing support to the health sector in the implementation of specific activities; maintaining the provision of essential and critical services; engaging the public and raising their awareness of response activities; and maintaining public confidence in the government, its agencies and its processes.

The MoPH together with public and private health care providers were responsible for health. Their role included: devising and initiating the national response in line with the country’s emergency preparedness structures and the National Response Action Plan; undertaking national intelligence and planning, including liaising with WHO and other international bodies responsible for providing high-level advice and recommendations to national authorities; convening command, operational and advisory groups and disseminating clinical and public health advice nationally; and liaising nationally with, and advising, other government and private agencies.

A multisectoral committee was established to develop a travel policy. On the basis of available epidemiological data and other relevant information, the committee defined quarantine and testing requirements for travellers exiting and entering the country. It continuously updated travel protocols as the
situation changed both in Qatar and globally. Multisectoral committees were also set up to enable the country to hold events such as the FIFA Arab cup in 2021. The Ministry of Commerce and the Ministry of Labour cooperated in vaccinating companies’ employees, while different entities supported PHCC to continue to provide essential services during the pandemic.

Private sector health care services played a significant role in supporting the response to the pandemic, not least in providing staff to support the nationally coordinated response effort. As the country opened up in phases, private health services collaborated to provide testing services and to report results, reducing the burden on PHCC. This was achieved by allowing private health services to link with MoPH databases and the Ehteraz application.

To further support the national response, a Scientific Reference and Research Taskforce was set up early on in the pandemic. It included stakeholders from universities and health services who worked collaboratively on local epidemiological data, reviewing the scientific literature and identifying gaps in knowledge. This structured and collaborative approach helped to support the implementation of numerous studies on COVID-19 in Qatar. Some studies were among the first to report on a specific COVID-19 area/topic, and have been published as open access articles to enhance knowledge sharing (39-45).

Recognizing the importance of disseminating unified messages, a media committee was established at the outset to work collaboratively to convey consistent messages about COVID-19 to the public. The Government Communications Office played a key role in approving the messages.

Response plan

A National COVID-19 Response Plan was published in March 2020, led by the NCC (6). The Plan was developed and implemented collaboratively, with contributions from key entities and organizations. Delivery was monitored against key performance indicators.

Health services provided by PHCC are an essential part of the planning and response process for emergency measures to ensure a coherent and integrated approach by those concerned with responding to a particular emergency. PHCC has a dedicated Directorate of Emergency and Disaster Preparedness and a robust PHCC Emergency and Disaster Preparedness Plan that guides the corporation’s employees on meeting the specific needs and requirements arising from a disaster. This Plan forms the basis for an integrated corporate response, supported by allied organizations to ensure an optimal, immediate and effective response to major emergencies (29). The Plan defines clear roles and responsibilities within and outside PHCC.

PHCC’s Emergency and Disaster Preparedness Team provides continuous awareness sessions, training and mock exercises to all PHCC employees including staff working directly with the public. It regularly tests communication across the organization, preparing key responders at headquarters on a
monthly basis to ensure that the organization is always ready to respond to an emergency as the need arises. The importance of these continuous preparation and coordination efforts was evident in the rapid response to the COVID-19 pandemic. As such, PHCC acted as the first point of contact for community health and took quick and effective measures to manage this pandemic in coordination with the Supreme Committee for Crisis Management, the MoPH and HMC. Improved cooperation with the private health sector and enhanced ways of managing rapidly emerging misinformation are areas that could benefit from further development.

How communities are responding to COVID-19

Mapping communities

Qatar has well-developed structures to engage with diverse local communities, for example, through PHCC’s Health Centre Friends, who act as community advocates.

Such structures were used to map communities and identify vulnerable groups in the context of COVID-19, with the information used to inform surveillance and testing policies. Vulnerable populations were monitored closely, and the vaccination programme was rolled out based on priority populations (elderly populations, those with comorbidities, health care workers, border staff and those employed by educational organizations).

Service provision and supplies

The government, through its public health care system, offered free testing and treatment for anyone with symptoms of COVID-19 or those having been in close contact with a confirmed case. In the early days and during the peak of the pandemic, where required, confirmed cases were placed in quarantine facilities free of cost. They were provided with all amenities such as food and medical treatment to minimize the spread of COVID-19 in the community. All members of the public were provided with access to face masks, gloves and hand sanitizer. This encouraged community members to adhere to precautionary measures, to seek help in a timely manner if they suspected infection and to follow quarantine measures.

Information and communication

From the outset of the pandemic, regular press conferences were held with senior national figures to update the public and help manage the pandemic. A website was launched with key information related to case numbers, symptoms, when and where to access tested, self-care, quarantine, travel and vaccination.
Qatar instigated its National Public Health Communications Plan on 23 January 2020 producing essential public information on protection against COVID-19 in eight languages to cater for the country’s diverse population. A variety of channels were utilized, such as SMS, social media, daily TV and radio coverage, short educational videos in multiple languages, online workshops and meetings with community leaders (21).

A dedicated phoneline was set up to support the population and respond to queries and concerns. This was also used to identify suspected cases of COVID-19 and direct individuals to testing facilities and assessment by dedicated medical teams. The importance of public health measures such as the wearing of face masks, handwashing and the use of sanitizer, and social distancing was emphasized continuously through numerous channels.

COVID-19 vaccination hesitancy was noted among the population (46-48), with the influence of social media on attitudes towards vaccination suggested to be the main cause of hesitancy (49). To manage misinformation in communities, PHCC’s communications team used social media and SMS to disseminate unified COVID-19-related messages. At the same time, PHCC continued to disseminate non-COVID-19 messages to inform its population on various aspects such as accessing its services and seeking help when needed. These messages raised awareness of COVID-19 precautionary measures, clarified how to seek advice and help if individuals developed symptoms and who to contact with a confirmed case, provided information about vaccinations, and encouraged continuity of care for non-COVID-19-related health care needs.

In addition to the information that was shared by PHCC and other governmental entities, the 16000 COVID-19 hotline operated 24/7. It provided advice and access to health services such as: PHCC consultations and HMC urgent consultations for non-life-threatening medical conditions; home delivery of medications; mental health support; medical assistance for individuals in home quarantine; validation of vaccinations received abroad; and other COVID-19-related queries.

Participation

Community associations were tasked with providing support in areas such as health, mental health, logistics and raising awareness. A national volunteering campaign was launched and volunteers were deployed to encourage compliance with public health measures in communities, including the wearing of face masks and social distancing in supermarkets. PHCC’s school health team supported the Ministry of Education and Higher Education by providing school nurses during the exam period, who followed the COVID-19 school health protocol.
Mental well-being

Qatar rolled out guidelines and policies to enhance psycho-social support for staff, families and the broader community. A helpline was set up, staffed by a team of experienced mental health professionals including psychiatrists, psychologists, social researchers and nursing personnel from various institutions. Team members assessed the situation and provided support for callers across four major groups: children, adolescents and their parents; adults; the elderly; and personnel working directly with patients.

Economic support

The Amir of Qatar provided a QAR 75 billion (approximately US$ 20.6 billion) support package as part of the COVID-19 response. The aim of this funding was to help companies do their part in preventing the spread of COVID-19; stay in business; pay employees’ salaries when in quarantine, isolation or hospital; and prevent redundancies. Further measures included the exemption of electricity and water charges, the allocation of guarantees of QAR 5 billion (approximately US$ 1.4 billion) to local banks and the provision of compensation to health personnel working directly with COVID-19 patients as well as other key workers.

Humanitarian efforts

In line with calls made by WHO to meet the needs of low-income countries, the Qatar Fund for Development and its partners such as the Government of Qatar, Qatar Red Crescent and Qatar Airways shipped aid (e.g., medical equipment, PPE, vaccines and food supplies) to 88 countries in addition to providing governmental and nongovernmental assistance amounting to more than US$ 256 million.
Conclusion and lessons learned

Over the past 10 years, Qatar has invested significantly in its health system. The country previously experienced outbreaks of respiratory illnesses such as Middle East Respiratory Syndrome Coronavirus (MERS-Cov) and influenza A virus subtype H1N1 (51, 52), which led to a focus on communicable diseases. As such, communicable diseases are included in Qatar’s NHS 2018–2022. In preparation for the FIFA World Cup in 2022, Qatar strengthened its emergency and disaster management plans and systems. In the years preceding the pandemic, significant resources had been invested, and steps taken, to develop evidence-based plans and strategies and to enhance the public health workforce. These efforts were crucial in minimizing COVID-19’s impact.

At the outset of the pandemic in 2020, Qatar recognized that COVID-19 was likely to have a significant impact and therefore required a national response. To this end, a multisector collaborative governance structure was activated, supported by strong leadership, to organize and roll out a coordinated approach in a timely manner. Furthermore, the governance structure was sufficiently flexible to meet the demands of the evolving situation. It operated under a hub and spoke model (with the NCC at the centre, reaching out to the sector leads). Adopting such a governance structure was key in managing the pandemic successfully.

As in other countries, the lack of knowledge and understanding of COVID-19 early on proved to be a significant challenge. Within weeks of identifying its first confirmed case in February 2020, the country restricted inbound travel. It also announced the closure of all non-essential services and activities including restaurants, shopping malls, banks and schools. An enhanced track-and-trace system combined with advanced IT infrastructure was implemented, which supported the early detection of cases in the community. The designation of COVID-19 and non-COVID-19 health care facilities further helped to minimize infection rates and deaths among patients and health care workers and to support the continuity of essential health services.

While the capacity of the health workforce was increased through recruitment from private health facilities, personnel faced heavy workloads due to high infection rates. The lack of understanding of the virus and the emergence of waves in short succession brought about a major challenge and significantly impacted staff well-being. Mental health and well-being in the general population were also impacted, particularly among children and vulnerable populations. The government invested in supporting mental health during the pandemic, but more interventions are needed in future health crises.

In general, the public complied with the stay-at-home and quarantine measures imposed. Although the Ehteraz application played an important role in encouraging compliance, its implementation and other measures such as face masks and social distancing relied on the active participation of the public. Non-compliance due to a lack of understanding or other social reasons could have
driven infection rates. In this regard, there may be an opportunity to develop better ways of communicating messages to Qatar’s diverse population, not least to limit the spread of misinformation and rumours that circulated via social media.

While penalties were introduced to address such challenges, alternative strategies are needed to more rapidly address issues such as misinformation and vaccine hesitancy. Options could include enhanced engagement with civil society organizations and notable personalities.

The government led a successful response to the COVID-19 pandemic, as evidenced by low death rates and high vaccine uptake (23). Addressing gaps in knowledge, capacity and service provision will support future pandemic preparedness.
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This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization, in collaboration with the WHO Regional Office for the Eastern Mediterranean (EMRO) and WHO country offices. 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.