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

Ahmad Shah Salehi
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Executive summary

The first confirmed case of COVID-19 was reported in Afghanistan in February 2020. Subsequently, the country confronted a number of challenges in its response to the pandemic, particularly in the early stages. Between February 2020 and 22 April 2022, Afghanistan reported 178,611 confirmed cases, with 7,680 deaths. Up until 18 April 2022, a total of 5,948,889 doses of the COVID-19 vaccine had been administered (1).

This case study explores Afghanistan’s primary health care (PHC) systems in the context of the response to the COVID-19 pandemic from the initial outbreak in 2020 to April 2022. It utilizes the Astana PHC framework (2), which incorporates critical public health services, multisectoral collaboration and community engagement. It draws on evidence from a review of both published and unpublished literature relevant to the PHC system of Afghanistan and COVID-19, along with stakeholder consultations with key informants in the field.

The findings of the study reveal that the COVID-19 pandemic impacted Afghanistan during a period in which different epidemics were still ongoing, including malaria, dengue, polio and measles. This had a negative impact on the ability of the country to respond to the COVID-19 crisis. Although certain measures were implemented by the Ministry of Public Health (MoPH) to deliver basic health functions and reinforce collaborative efforts with health service providers, the pandemic revealed various deficiencies in the country’s health system.

Afghanistan faced challenges in its pandemic response efforts in terms of: insufficient personal protective equipment (PPE), inability to trace cases, a poor surveillance system, restricted testing capacity, lack of ventilators for patient use, limited oxygen supplies, poor distribution of vaccines and widespread vaccine hesitancy among the population, as well as misinformation about COVID-19 and the government response.

Policy decisions pertaining to the participation of nongovernmental organizations (NGOs) and the private sector were postponed until the middle of June 2020, while the country was unsuccessful in its attempts to coordinate the pandemic response among concerned entities. Although a workforce of more than 25,000 community health workers (CHWs) existed at that time, there were limited attempts to engage communities in managing the pandemic.

Pandemic preparedness efforts are necessary to respond when epidemics or health emergencies occur. In an ideal environment, the manner in which PHC providers respond to particular crises would incorporate case management in addition to public health functions such as disease notification and surveillance, and preventative measures including vaccinations. By introducing the Integrated Package of Essential Health Services (IPEHS), which provides an integrated emergency response package, Afghanistan might be able to address existing inadequacies in the ability of basic services to react to health crises and make suitable preparations for future epidemics or similar health emergencies.
Executive Summary

Through coordination and cooperation with different sectors that have an impact on health, it is possible to enhance information exchange, improve the response to disease outbreaks and resolve any coordination deficiencies between different sectors and the health sector. Effective engagement with communities could facilitate the process of anticipating and recognizing public health events and mitigate the effects of unavoidable crises through the development of suitable and reliable systems prior to, during and after a crisis.

Integrated research is necessary on various aspects associated with COVID-19. Surveys can provide valuable information on the epidemiological features of the virus; while knowledge, attitude and practice (KAP) surveys and interventions can facilitate positive care-seeking behaviours within communities. Qualitative studies can reveal particular challenges that prevent or limit the implementation of emergency response approaches. Furthermore, evidence pertaining to COVID-19 programmes and initiatives implemented should be assessed to determine their efficiency, effectiveness and value for money.
Introduction and national context

The PHC system

Significant developments have been made over the past 20 years with respect to PHC services. The Basic Package of Health Services (BPHS), as a form of selective PHC, is regarded as a driving factor of health gains since the package was first established in 2003 (3). The development of the BPHS was based on two strategic aims: (i) to offer a standardized package of basic services for delivery across all primary care facilities; and (ii) to encourage health services to be redistributed and made available to all, particularly in underserved areas (4). Funding for the package was provided by the World Bank, the United States Agency for International Development (USAID) and the European Union (EU) (5).

The BPHS was revised in 2010 to enable an appropriate response to changing health needs and to enhance access to so-called white areas (areas without basic services, including health care services). However, various problems remain, including health inequality, substandard service quality and a lack of efficiency within health facilities (6). In 2005, the Essential Package of Hospital Services (EPHS) was introduced with the aim of improving referrals across the various levels of Afghanistan’s health system (7).

In an effort to integrate and align the BPHS and the EPHS, and to link primary and secondary health care services, a new PHC package was created by the MoPH in 2019. This new package - the IPEHS - highlights how critical interventions in basic health facilities and first line referral hospitals are differentiated, and incorporates new interventions, particularly with regard to responding to crisis situations. Nevertheless, the package has failed to attract the interest of funders thus far (8).

From 2003 onwards, NGOs have been contracted to provide BPHS services within 31 provinces. From 2003 to 2021, identical services were directly implemented in three other provinces (Kapisa, Panjshir and Parwan) by the MoPH via a mechanism referred to as the MoPH Strengthening Mechanism (MoPH-SM). The MoPH has “contracted in” Provincial Health Offices under the MoPH-SM model to provide services in accordance with the BPHS (9).

As at April 2022, the EPHS and BPHS were being implemented as two separate and independent packages by NGOs across the country.

At the core of the BPHS, Community-Based Health Care (CBHC) infrastructure has facilitated the delivery of PHC services to patients in less accessible regions (10). Included within the CBHC are CHWs who are based within rural health facilities, as well as community health supervisors, health shuras (councils), family health action groups and family health workers (11). In excess of 25 000 CHWs provide services on a voluntary basis throughout Afghanistan, fulfilling a specific role amidst the official and unofficial health system and providing a link between the community and the health care system. CHWs are responsible for health promotion, the delivery of specific health services and the referral of patients to
subsequent care levels (12). After the Taliban took control of Afghanistan on 15 August 2021, certain health system management functions like external funding and the management of contracts were transferred to United Nations (UN) agencies, predominantly the United Nations Children’s Fund (UNICEF) and World Health Organization (WHO) (13).

COVID-19

On 11 March 2020, WHO characterized the evolving COVID-19 crisis – caused by the SARS-CoV-2 virus – as a global pandemic (14). The first confirmed case of COVID-19 was detected in Afghanistan in Herat province on 24 February 2020 (15). At this time, the country’s health care system was already struggling as a result of the impact of 40 years of war. Between 24 February 2020 and 22 April 2022, Afghanistan officially recorded 178,611 confirmed cases, with 7,680 deaths. By 18 April 2022, the country had administered 5,948,889 COVID-19 vaccine doses (1).

Afghanistan has faced several setbacks and new challenges in its response to COVID-19. Border restrictions have impeded financial and resource flows, while the crisis has been aggravated by limited public awareness of COVID-19 combined with low health literacy, cultural norms of shaking hands and residing in multifamily households, plus ongoing gatherings at still-open mosques (4). Moreover, the country’s reliance on external funding impacted the capacity of the government to lead the pandemic response, coordinate multisectoral action, and minimize duplication of effort and inefficiencies.

Methodology and objective of the case study

This country case study, utilizing the Astana PHC framework (2), which incorporates critical public health services, engagement with the community and collaboration with multiple sectors.

We examined Afghanistan’s PHC system in the context of the COVID-19 response with regard to the following analytical themes: a) management of critical emergency services and maintenance of essential services; b) tackling wider determinants of health and adopting a multisectoral approach to enhance health, and c) effective community engagement and leverage of resources within the community.

We compiled evidence from a review of both published and grey literature in addition to (anonymized) consultations with 12 key stakeholders who volunteered to participate in the study. These consultations focused on the experiences of the stakeholders with respect to COVID-19 and the BPHS. Google Meet was used to conduct the consultations online, which took between 50 and 90 minutes each. All stakeholder consultations were recorded and transcribed verbatim.

We utilized content analysis to examine the primary issues, themes and results. Topics were determined and then allocated to categories of association in accordance with the themes and standards of this approach. Representative quotes were chosen and then assigned to the pertinent classifications. Common
opinions were outlined and significant answers were elaborated.

Two approaches were used to triangulate findings of the literature review with the data extracted from the stakeholder consultations. Initially, the research team evaluated whether the findings produced by each method were consistent. Two analysts then reviewed the findings. In all situations, we ensured that the personal viewpoints of individual members of the research team were not included when reporting the results.

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

Despite significant advancements over the past 20 years (16–19), the quality of health services remains poor (20). The COVID-19 pandemic has exacerbated existing challenges by worsening the economic conditions in the country, increasing poverty and widening inequities (21).

A state of emergency was declared in March 2020, at which time stay-at-home orders and other movement restrictions were put in place in all key cities (22). Additionally, the government, media and civil society groups implemented educational campaigns to promote preventative actions such as good hand hygiene, the wearing of face masks, physical distancing and home isolation to ensure the safety of the population (23).

To minimize the impact of COVID-19 on routine health services, the MoPH determined to maintain essential services, strengthen partnerships with health service providers and enhance the CBHC programme. However, challenges were faced in implementation.

**Health funding and decentralized decision-making**

During the first wave of the pandemic between February and December 2020, the Afghan government took the immediate decision to assign a budget of US$ 25 million to combat COVID-19 (25). Furthermore, donors and development partners committed funding of approximately US$ 254 481 535 to support the pandemic response. Of the total budget committed, 74% was disbursed, of which 79% was utilized between March 2020 and March 2021; 63% of the total funds committed were channelled off-budget and the remaining 37% were channelled on budget, including support provided by the World Bank via contracted NGOs. Service providers were allocated extra funds (10% of their total contract value) to respond to urgent needs such as medicine supplies and PPE (24).

Data indicate that a vast percentage of the budget was assigned to drugs and medical resources, followed by the renovation or construction of health facilities or centres in which COVID-19 patients could isolate, human resources, nonmedical supplies and laboratory services (26). Table 1 shows the financial contributions of donors to the pandemic response.
## Table 1. Donor support to the COVID-19 response in Afghanistan

<table>
<thead>
<tr>
<th>Donor</th>
<th>Committed budget (US$)</th>
<th>Disbursement (US$)</th>
<th>Expenditure (US$)</th>
</tr>
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<td>644 912</td>
<td>644 912</td>
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<td>Al-Gharafa</td>
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<td>62 425</td>
<td>62 425</td>
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<td>12 912 080</td>
<td>11 109 616</td>
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<td>Australia Department of Foreign Affairs and Trade</td>
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<td>100 000</td>
<td>100 000</td>
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<td>Bill &amp; Melinda Gates Foundation</td>
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<td>2 900 000</td>
<td>-</td>
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<tr>
<td>European Union</td>
<td>47 361 048</td>
<td>19 352 736</td>
<td>-</td>
</tr>
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<td>1 833 919</td>
<td>916 959</td>
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<td>2 089 136</td>
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<td>Global Fund</td>
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<td>53 740 122</td>
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<td>Government of Azerbaijan</td>
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<td>224 442</td>
<td>224 442</td>
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<td>400 000</td>
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<td>Government of Czechia</td>
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<td>Government of the Islamic Republic of Iran</td>
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</table>

Table continues next page...
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<tr>
<th>Donor</th>
<th>Committed budget (US$)</th>
<th>Disbursement (US$)</th>
<th>Expenditure (US$)</th>
</tr>
</thead>
<tbody>
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<td>250 000</td>
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<td>Islamic countries</td>
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<td>Islamic Development Bank</td>
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<td>Democratic People’s Republic of Korea</td>
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<td>401 753</td>
<td>401 753</td>
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<td>Private sector and local charities</td>
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<td>1 026 317</td>
<td>1 026 317</td>
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<td>12 000 000</td>
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<td>832 000</td>
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<tr>
<td>Women for Women</td>
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<td>79 505</td>
<td>79 505</td>
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<td><strong>Total (US$)</strong></td>
<td><strong>254 481 535</strong></td>
<td><strong>187 608 274</strong></td>
<td><strong>148 294 707</strong></td>
</tr>
</tbody>
</table>

Source: MoPH (2021) (26).
In 2020, during the first phase of the pandemic, a key decision was taken by the government to decentralize the response to the respective provincial authorities. This created a sense of alertness among these authorities to combat the virus; however, due to inexperience and limited capacity, it was not possible to manage the health crisis effectively (27).

“In theory, decentralization is welcomed. However, my opinion is that authorizing the provincial authorities to respond to the pandemic in an autonomous manner was a hasty decision. They were not prepared. Due to their lack of capacity, the response was mismanaged, inefficient and even impacted by corruption.”

(stakeholder consultation)

Furthermore, even when policy directives were identified for the efficient utilization of resources, the health system was unable to use such resources promptly. For instance, policy decisions pertaining to the participation of NGOs and the private sector in the pandemic response were postponed until the middle of June 2020, at a time when virus transmission had reached a peak.

In terms of transparency and accountability, a mechanism was not incorporated into the pandemic response system to effectively monitor how resources were being distributed throughout the country (28).

Disease surveillance

A system of surveillance operates in Afghanistan in which four methods are used to control the prevalence of an infectious disease, namely: identifying cases, investigating cases, screening at borders and decentralization of the testing process. As soon as the volume of COVID-19 cases began to increase in 2020, rapid response teams were assigned by the MoPH who were tasked with controlling the spread of the virus and with contact tracing within the community. However, a large proportion of COVID-19 cases remained undetected. Community-based networks were not integrated into the surveillance system, which largely operated only within major urban areas and with limited capacity (4).

“There were not good connections with certain geographical regions. The system operates in a vertical way and virtually outside the MoPH structure.”

(stakeholder consultation)
It was not possible for the PHC system to perform contact tracing, even in instances where positive cases were detected by public health laboratories. After a positive test was detected, efficient measures were not in place within the PHC system that allowed contact tracing or the provision of home-based care or referrals (14, 27).

The delivery of essential health services

On health services, evidence suggests that the COVID-19 pandemic had a negative impact on the ability to deliver PHC services when the crisis was in its infancy. The pandemic also caused substantial disruptions to essential services for noncommunicable diseases (NCDs) at the PHC level. All routine NCD services were cancelled in early 2020 (28).

“At first, shock and panic pervaded throughout the system, but even though there were multiple shortcomings in the response to the crisis, certain deficiencies were detected during the emergency.”

(stakeholder consultation)

Pandemic preparedness and readiness to respond

The evidence also shows that the BPHS did not include an emergency readiness and response component to assist health authorities with detecting and controlling outbreaks and to increase capacity when responding to an unforeseen health crisis. The MoPH maintained only a small unit connected with crisis response, and funding was sporadic and variable (4).

“Sadly, the BPHS did not anticipate a response to the emergency even though disease outbreaks and health crises occurred previously.”

(stakeholder consultation)

Meanwhile, the MoPH was confronted with problems caused by a shortage of PPE and other infection prevention equipment. Despite the mobilization of a certain amount of PPE from the MoPH’s central stock and donations by WHO at the beginning of the crisis, most health personnel did not have access to critical PPE for an extended period, thus undermining efforts to combat the pandemic.

Indeed, even before the COVID-19 pandemic, there was a severe shortage of essential PPE within the country (i.e., face masks, gowns/aprons, gloves and goggles). Data indicate that BPHS health facilities faced severe shortages, with only 2.2 of the 4 items that constitute PPE available on average (30). There was also a lack of clarity surrounding the ability of health systems to cope with the rise in demand for such equipment as COVID-19 cases began to increase.
Afghanistan scored poorly (1.8 out of 5 on average) on readiness dimensions relevant to health care workers within the International Health Regulations (IHR), a regulatory framework aimed at preventing diseases from spreading (29).

“The PPE shortage is still a significant problem. There should be adequate buffer stock of emergency resources like PPE. Due to the fact that the response to an emergency was not a key aspect of our health strategies, there was a lack of readiness.”

(stakeholder consultation)

COVID-19 testing capacity

In the initial stages of the pandemic, polymerase chain reaction (PCR) tests could only be processed by the Central Public Health Laboratory. This was subsequently extended to other areas of the country, and in the middle of 2021 private sector organizations started to provide diagnostic services, thus sharing the burden placed on public health services. Even though testing sites were expanded, testing capacity was still restricted due to a shortage of test kits and necessary materials within government laboratories (30). A recent survey carried out by WHO found that the majority of COVID-19 health facilities were not capable of conducting on-site testing and the turnaround time for receiving test results was three days in most cases. It is known that health care professionals are better able to deliver appropriate care, based on the processing time for laboratory testing (31).

Availability of medical equipment

Health care technology is a critical factor in preventing, diagnosing and treating diseases, particularly COVID-19 (32). However, some health care workers lacked the skills and capacity to use vital medical technologies during the pandemic. Furthermore, Afghanistan faced challenges in mapping and verifying the volumes of equipment available within the health system, particularly with regards to the number of ventilators in the country (27).

“When the pandemic started, the number of available ventilators was limited. Later on, additional ventilators were provided to the MoPH by the international community. Nevertheless, it has been difficult for health care workers to use ventilators properly.”

(stakeholder consultation)
Afghanistan also experienced significant shortages in oxygen supplies, particularly in mid-2021. In total, Afghanistan was given 3750 “oxygenators” (a mobile device to produce oxygen) and was supported to establish 10 oxygen plants by WHO and UNICEF. Plants were set up by the government in 10 provinces out of 34 provinces. The lack of oxygen continued to be a problem despite donor support, and the poor supply resulted in multiple deaths when the pandemic was at its peak.

“The lack of oxygen supplies was an additional factor that caused mortality rates at intensive care units to increase.”

(stakeholder consultation)

The COVID-19 vaccination programme

The findings from our literature review and stakeholder consultations also indicate that there was a lack of preparation for a COVID-19 vaccination programme. Among other challenges, the country did not have enough medical professionals to administer the vaccines, it lacked a completely integrated operational cold chain to maintain vaccine stocks and faced logistical obstacles in terms of geography and poor security (33).

The spread of misinformation pertaining to COVID-19, mistrust of vaccines and particular cultural beliefs also resulted in widespread reluctance among the public to come forward for their vaccine (34). Help from the international community proved to be a critical factor in enhancing vaccination coverage and some BHPS health facilities did indeed provide vaccination services; however, certain obstacles were still encountered.

“Individuals have no interest in getting vaccinated against COVID-19. As well as limited access to vaccination facilities, inaccurate and false information have been critical factors in this reluctance.”

(stakeholder consultation)
How multisectoral policy and action are responding to COVID-19

Specific strategies to promote intersectoral collaboration for any programme requires that health and nonhealth actors are involved (35). Further, sufficient financial and human resources are needed for planning, implementation and monitoring to facilitate successful multisectoral and intersectoral initiatives (36).

The COVID-19 pandemic has caused economic, social and health problems, which means that basic services function in an extremely uncertain environment with challenging trade-offs to be made. For instance, transmission of the COVID-19 virus was exacerbated by the number of Afghan refugees who were returning regularly from the Islamic Republic of Iran as a result of the consequences of the pandemic in that country and the subsequent economic downturn (37).

Measures were implemented nationally during the early period of the pandemic in an effort to detect cases and respond appropriately (38).

One of the earliest measures to be introduced was cross-border screenings at points of entry due to the surge of returnees from the Islamic Republic of Iran (which, at the time, was a surge in COVID-19 cases). Additionally, presidential decrees were issued urging people not to gather in public places, while mass gatherings and sporting and entertainment events were prohibited. Stay-at-home orders and business closures were also imposed (38, 39). Working in collaboration, WHO and the MoPH instigated a public-awareness campaign in the media, held month-long roundtables and shared information with faith and community leaders in each of the 34 provinces (40). The Ministry of Religious Affairs and WHO prepared and disseminated information, education and communication resources (41–42).

Nevertheless, despite the above measures and the establishment of a committee to manage the COVID-19 crisis, Afghanistan was unsuccessful in its attempts to coordinate the pandemic response among concerned entities. In particular, an absence of collaboration among different sectors led to disruption and fragmentation within the national response, with delays in action and a general lack of trust among the public (43).

“The lack of consistency in government efforts motivated citizens not to comply with preventative measures aimed at controlling the virus, thus causing the virus to spread further.”

(stakeholder consultation)
Stakeholders expressed the belief that the pandemic was expected to offer the opportunity to incorporate health targets and priorities within cross-sectoral policy and monitoring processes. This would enable Afghanistan to adopt a “health in all policies” approach to promote good health and equity and support intersectoral collaboration; however, this was not achieved by the government.

“Although a committee headed by the 2nd Vice President that included members from different sectors was tasked with coordinating the response to the crisis, it was characterized by fragmentation, confusion, irregularity, inefficiency and lacked focus.”

(stakeholder consultation)

The annual Sustainable Development Goal (SDG) 2020 progress report covering all 17 Goals revealed that the COVID-19 pandemic had the greatest impact globally on the poorest and most vulnerable, including women, children, older persons, persons with disabilities, migrants and refugees (44). Yet, even before the pandemic, progress was already poor in Afghanistan on measures that aimed to improve the quality of life of citizens through the accomplishment of the SDGs. COVID-19 exacerbated this situation (45). In fact, Afghanistan has only made advancements with regard to 24 of the 85 official targets of the SDGs; no progress has been recorded with respect to 19 of the targets, data are insufficient for the assessment of 34 of the targets, and Afghanistan’s performance has worsened against eight of the targets (46).

It is evident that the pandemic has been detrimental for the economy and the country’s ability to achieve the SDGs (47). The closing of borders and the imposition of movement restrictions and business closures caused food prices to rise rapidly by 17% in April 2020. Beyond this, such measures had a substantial impact on the industrial and services sectors. Between 2019 and 2020, domestic revenues declined significantly from 14.1% to 11.4% of gross domestic product (GDP); tax revenue decreased by 7.6% and nontax revenues decreased by 30% in the same period. By June 2022, trade in goods had declined by 23.6%. Agricultural processing and trade were negatively impacted by the pandemic, with more than 50% of processing units for cereals and 57%, 70% and 97% of processing units for fruits, vegetables and dairy, respectively, having closed or having operated at reduced capacity (48).
How communities are responding to COVID-19

While the research team experienced certain challenges in accessing literature on the community response to COVID-19, stakeholder consultations were revealing. Insights were gained on certain features of the community response as well as the necessity to engage with the community as part of any response to health emergencies to ensure the availability of necessary health services. Additionally, we re-examined a dataset gathered by UNICEF regarding the effects of COVID-19 in 2021 (49).

The findings of this UNICEF study reveal that approximately 50% of Afghan communities felt that there was no risk at that time of them being infected by the SARS-CoV-2 virus. Only 46% of respondents stated that they practised good hand hygiene (i.e., regular hand washing), 7% wore masks and 14% practised social distancing. The primary reasons for this lack of adherence by individuals to preventative measures was that they believed it would be detrimental for their employment and relationships, along with the absence of facilities such as adequate running water and sanitation services for hand washing (noted by 51% of respondents) (49). Participants in our stakeholder consultations reiterated these beliefs.

“Even though people were asked to engage in frequent hand washing and physically distance from each other, a vast proportion of individuals were not able to access proper sanitation and the majority were residing in crowded dwellings.”

(stakeholder consultation)

“There was a general belief that if people remained in their homes … it would put their families’ lives at risk as they were the only source of income and worked every day.”

(stakeholder consultation)

Additionally, stakeholders indicated that COVID-19 had a considerable impact on the ability to deliver BPHS services when the pandemic first started in 2020. Stakeholders believed that members of the public were reluctant to use such services, based on the assumption that health facilities were a potential source of infection. They also described how the public mistrusted the authorities due to a lack of governmental competency in providing timely information about COVID-19, the spread of misinformation and rumours, and previous erroneous and unsatisfactory pledges by the government. Members of the public were unsure whether the Afghan government was capable of managing the pandemic.
“There was no confidence among the public that the government was capable of managing the emergency. Awareness in the community was poor and collective opinion was largely influenced by false information and propaganda.”

(stakeholder consultation)

Conversely, the PHC system failed to consider the CBHC system to be critical to efforts to combat COVID-19. Although more than 25 000 CHWs were working, the government made limited efforts to engage communities or the CHWs in the pandemic response. This went against the principles of the Astana Declaration (50), which places emphasis on efforts to systematically engage and communicate with the public and communities to ensure confidence in the capacity of the health system, such that high-quality critical services can be provided safely and that suitable care-seeking behaviours and adherence to public health guidance can be ensured.

“There are a large number of CHWs across Afghanistan. They should have been mobilized so their potential could be exploited.”

(stakeholder consultation)
Conclusion and lessons learned

COVID-19 spread at a time when the country was experiencing the effects of other diseases, including measles, dengue, malaria, polio and cholera. These existing health challenges impacted efforts to respond to and manage the pandemic.

Although the MoPH implemented various measures to contain the spread of the virus – led by a strategy to deliver essential health services and reinforce collaboration with health service providers – the pandemic revealed various deficiencies in the health system. Afghanistan lacked the capacity to generate and use evidence for policy-making; had insufficient resources, including PPE, testing kits, ventilators and oxygen supplies; operated a poor system of surveillance, with the inability to trace contacts; lacked logistical capacity to deliver vaccines; and faced widespread vaccine hesitancy, false and inaccurate information, and cultural obstacles among the population. These factors hindered efforts to prevent and control the spread of COVID-19.

The findings of this case study point to four key lessons for Afghanistan’s preparedness for future health crises:

1. PHC facilities and personnel can be better integrated within the broader health care delivery system to respond to pandemics and epidemics.

   Various diseases persist in Afghanistan, including polio, malaria, measles, cholera and dengue. Alongside outbreaks of these diseases, the country must be completely ready to provide an appropriate response to epidemics and unforeseen health crises. Consequently, a focus on building a resilient health system would be beneficial. At the PHC level, services must incorporate case management in BPHS health facilities as well as other public health measures including disease notification and surveillance, and preventative actions including vaccination.

   A recent survey conducted by WHO (31) identified insufficient trainings on COVID-19 control and prevention as the main reason for health worker infection in Afghanistan. By effectively training and equipping health professionals, these individuals can serve as sentinels in disease surveillance, acting as critical links in efforts to detect the virus at an early stage.

   Although the BPHS is regarded as a driving factor of health gains in Afghanistan since the package was established in 2003, we propose reforms could help to better manage critical emergency services and maintain essential services during health crises. Through the IPEHS, Afghanistan can provide an integrated crisis response package to bolster the BPHS, enabling the country to react to disease outbreaks and prepare for future pandemics and epidemics.
At the core of the BPHS, CBHC services facilitate the delivery of PHC services to patients in remote regions. Included within the CBHC are CHWs who work on a voluntary basis in rural health facilities, as well as community health supervisors and health shuras. CHWs provide a bridge between the official and unofficial health system and are a critical link with the community. The CBHC policy (51) could be updated to highlight the role of CHWs in maintaining essential health services during health emergencies such as the COVID-19 pandemic.

2. **Multisectoral cooperation is necessary in combating subsequent waves of COVID-19 or similar public health crises.**

It is important that pandemic response efforts are implemented involving multiple sectors to reinforce and develop measures to control the virus. This could include coordination at the national level, expansion of laboratory capacities, and risk communication and engagement with communities. The risks around disease transmission can be reduced by improving water, hygiene and sanitation standards, along with widespread vaccination programmes in which PHC providers can play a critical role.

It is essential that response mechanisms are coordinated effectively across the national and provincial levels and between sectorial ministries, and that these entities work in partnership with NGOs and humanitarian actors also. Collaboration with global health initiatives could enable the response to be based on more trustworthy contextual and demographic data, while also ensuring timely access to the population impacted by the virus. Afghanistan could establish a permanent team for managing health emergencies that has the ability to analyse and monitor trends across the country and make policy decisions to ensure a multisectoral response.

To tackle wider determinants of health and adopt a multisectoral approach to enhance health, existing mechanisms for whole-of-government engagement could be reviewed and a policy document developed to institutionalize multisectoral actions to maintain essential health services during a pandemic.

3. **Community-led prevention and control strategies are critical in efforts to combat health crises and emergencies like COVID-19.**

It is essential that disease prevention and control approaches are driven by the community and that levels of public confidence and acceptance of such strategies are strengthened. Communities are critical to the success of screening programmes in terms of the referral of suspected cases, contact tracing, disease monitoring and the dissemination of information. Sensitization efforts can transform the perception and awareness of diseases, and are most effective when there is complete involvement of both local and community leaders. In the case of outbreaks such as COVID-19, where there is a general lack of familiarity with the disease as well as suitable preventative and treatment measures, it is essential that messaging aimed at changing behaviours emanates from a reliable source – this could be community leaders and/or CHWs.
In addition, it should be noted that preparedness and response efforts for public health emergencies usually require measures beyond service packages. Dedicated investment may be needed in public health structures that can respond to global health security planning, with delivery configured across the different levels of the health system, including at the community level.

4. National policies around stay-at-home orders, business closures and bans on mass gatherings must not be executed at the cost of disrupted livelihoods.

Purportedly introduced to apply “best practices” stipulated by international organizations, Afghanistan implemented public restrictions to prevent the spread of COVID-19. This included physical distancing, business closures and restrictions on social mobility without sufficient consideration for the specific situation and additional complexities within the country.

Even though the public generally did not comply with such measures, there was nonetheless a negative impact on the economy and on household livelihoods. A large proportion of Afghan citizens cohabit in limited spaces, where common facilities are shared, therefore it was particularly difficult to practise social distancing. The lack of a clean water supply made it even more challenging to engage in essential hygiene behaviours. Meanwhile, the incomes of the majority of people working within the informal sector were generally limited and often earned on a daily basis, therefore livelihoods were affected hugely by social restrictions implemented by the government. Infection prevention and control policies could be made more context-specific and balance the negative impacts of public health measures against the risks of disease transmission.

It is necessary for Afghanistan to take a proactive approach to improve its emergency response infrastructure while simultaneously building a resilient health system. The PHC system is integral to this, to ensure long-term approaches for future pandemics and other health crises. On COVID-19 specifically, health professionals would benefit from further training and equipment to detect the virus at an early stage.

Additionally, Afghanistan may consider developing a mechanism to facilitate cooperation and coordination among multiple sectors and partners. This would bridge any current gaps between the health sector and other sectors, enabling information to be exchanged in real time so that a suitable response can be implemented to a given crisis.

Communities could be better engaged as a standard practice within the PHC system nationwide to respond to crises and manage disease outbreaks. Mistrust and concerns about the side effects of COVID-19 should be taken seriously and addressed. By ensuring effective community engagement, Afghanistan can enhance the capability of the health system to foresee and detect outbreaks, and to mitigate the effects of unavoidable occurrences. This can be achieved via the development of suitable and reliable systems prior to, during and after a crisis.
Moreover, the effectiveness of measures to prevent the spread of a disease – such as restrictions on social mobility, business operations, and expectations around hand washing and the wearing of face masks – depend greatly on the socioeconomic situation of a country as well as the level of trust and acceptance among its population.

Lastly, further integrated research on various topics associated with COVID-19 within the Afghan context could support an improved response. KAP surveys can facilitate the understanding of care-seeking behaviours within the community, while other surveys can reveal evidence on epidemiological aspects of the virus. Qualitative studies can provide insights on the obstacles that prevent or limit the implementation of particular response strategies and guidelines for epidemics and pandemics. Evidence pertaining to specific COVID-19 programmes could be assessed to determine the efficiency, effectiveness and value for money of such interventions.
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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.