

CRISIS-DRIVEN INNOVATION: Public sector response during the Covid-19 outbreak

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CRISIS-DRIVEN INNOVATION: PUBLIC SECTOR RESPONSE DURING THE COVID-19 OUTBREAK

Summary

Crisis response based on preparedness is a core tenet for confronting crisis situations through coordination, communication, and containment mechanisms. However, the Covid-19 outbreak offers opportunities for the co-creation of crisis-driven innovation. The framing of crisis response as crisis-driven innovation ensures proactive strategies and pooling of resources to combat crisis situations in the context of public management. This policy brief details seven main management priorities for focusing public sector response as crisis-driven innovation:

- Policy adaptations that drive proactive responses and organizational resilience
- Political leadership and commitment that is crucial to cope with risks encountered in times of crisis like Covid-19.
- Inter-sectoral collaboration among ministries and municipalities that is essential to harness global networks, and organizational capabilities for innovation, creativity and resilience.
- Public service digitization that acts as a key enabler to support new models of crisis-driven innovation.
- Building trust and compassion through media that is critical for ensuring citizen's compliance.
- Social cohesion and value-based commitments that are manifested in times of crisis.
- Delivering innovative solutions and actions that are proactive and demand-driven

These priority areas benefit preparedness plans involving effective central planning and public policies, policy foresight, strategic communication, and inter-sectoral coordination. Response also requires social solidarity, value-based commitments, philanthropy, and transparency for coping with Covid-19 pandemic.

The brief also highlights the value of standardization, ICT-investment, digitalization, human capital development, alignment and investment for enhancing crisis response as crisis-driven innovation in light of insights from the Covid-19 outbreak.

The impact of the global Coronavirus Disease 2019 (Covid-19)¹ pandemic has deep implications on economy, society, and environment. Pandemics reveal and expose humans to a set of socio-economic and environmental risks and uncertainties. However, pandemics offer opportunities for new models of crisis-driven innovation² which emerge because of the public sector response and preparedness. Manifestations of the Covid-19 pandemic are evident in the

disruptions to the public service in areas of education, health services, travel, and global business. The response of the public sector based on preparedness sheds light on the value of adaptive and innovative capacity of public sector. Due to the Covid-19 crisis, people are confronted with a set of challenges in terms of the organizational capability, critical infrastructure, supply chains and health care services. The challenge is that although public health and vaccines

reduced many risks, pandemics tend to occur in unpredictable waves in space and time due to technology in transport and connectivity of global markets.

The following are the key findings of a joint interview-based study by Arabian Gulf University and Bahrain Institute of Public Administration (BIPA) on senior public officials in the health sector in Bahrain during April-June 2020 who were at the forefront of the crisis. Policy innovation and crisis-driven innovation in the health sector were manifested in key domains including: (i) centralized planning; (ii) strategic communication (iii) ICT-driven innovation; (iv) inter-sectoral collaboration (v) organizational learning; and (vi) social and open innovation.

PUBLIC RESPONSE FOR COVID-19 AS CRISIS-DRIVEN INNOVATION

Covid-19 is the latest in a series of global health crises facing governments and their public sectors. The reoccurrence of these viruses alarms the scientific community that the war to overcome viruses is not over. More research and investment in Science, Technology and Innovation (STI) infrastructure will be required to be prepared for future risks. It is likely that this pandemic will impose deep shifts in development priorities in Sustainable Development Goals (SDGs)³.

At the national level, it requires institutions to rethink the business models and mindset for managing public services. The public regained faith in science and technology and policy makers realize that investment in public goods like health and education pays

off in times of crises. Next are some of the main management priorities for focusing public sector response as crisis-driven innovation:

EMPLOYING POLICY ADAPTATIONS BASED ON PREPAREDNESS PLANS

One of the salient observations documented in the Bahrain public sector was its high responsiveness and adaptive capacity. This was evident in the re-engineering of public services, recruitment policy, public-private partnership, and e-services. The task force appointed to manage the crisis demonstrated high level of agility, resilience, and inter-sectoral and inter-organizational collaboration. This taskforce was an offshoot of a pre-existing active National Disaster Management Committee in Bahrain.

Health authorities in the Kingdom of Bahrain detected the first case of Covid-19 on February 24, 2020. Patient zero was a man of Bahraini descent returning from a visit to Iran with symptoms reported two days after returning to Bahrain. Bahrain had released a decree on setting up a National Team to face and managing this crisis by following the instructions of the decisions of the Government Executive Committee chaired by HRH the Crown Prince, Deputy Supreme Commander and First Deputy Prime Minister. The first meeting was headed by His Excellency Lieutenant General Doctor Sheikh Mohamed Bin Abdullah Al-Khalifa (the President of the Supreme Council of Health) and representatives from several governments sectors (Ministry of Interior, Bahrain Defense Force, King Hamad University Hospital & Governmental Hospitals). Decree 5/2013

“The level of preparedness was based on ensuring that immediate requirements were met and prioritized. For example, at the time of the first case, actionable work plans and specific responsibilities with all the other relevant entities such as with the Ministry of Interior, the embassies and other health organizations were not fully prepared, but initial agreements regarding their need for involvement was highlighted and reached.”

“Prompt and unified messages in many languages helped in instilling a sense of public confidence ‘through many communication channels (social media, TV, Radio, and newspapers)’”

(amended by Decree 35/2019) issued by His Majesty King Hamad bin Isa Al Khalifa, the King of Bahrain, established the Supreme Council of Health (SCH) and detailed the composition and duties of the SCH for overseeing the Kingdom’s public health system.

With awareness of the Covid-19 outbreak and approval by the Government Executive Committee (GEC), the SCH prepared by setting up a high-level National Taskforce to Combat Covid-19 (NTFCC) on February 4, 2020, led by the chairman of the SCH, and charged with formulating plans and executing policies for solutions to combat Covid-19 transmission and spread. Serving operationally as the centralized point and hub for the public sector response to Covid-19, the NTFCC meets daily, operates a ‘war room’ that manages operational issues of the Covid-19 response, and delivers direct, periodic reports to the Executive Committee.

PROVIDING POLICY INNOVATION AND LEADERSHIP

Using projections of public needs, the public health response began with using Salmaniya Medical Complex (SMC) before extending to the Bahrain Defense Force (BDF) and King Hamad hospitals. The response sites also involved the use of private hospital facilities, developed with specific phases as per the increase in required capacity. This implies that preparedness to response is readiness that extend beyond dynamic and absorptive capabilities and resources to actionable measures that depend on the collective action and synergy. The solution as innovation spectrum involves the use of collaborative technologies, social media, infrastructure to support sector agility and systems for facilitating policy leadership.

PROMOTING EFFECTIVE INSTITUTIONAL COLLABORATIONS

Adaptive solutions to public space challenges serves as the motivation for a 7-day conversion of a car parking lot at the Bahrain Defense Hospital into an intensive care unit (ICU) facility with a capacity of 130 beds, by the NTFCC, to admit critical patients who needed intensive care, as noted by a senior public health physician. Examples of other adaptive solutions involve reusing a sickle cell center as a Covid-19 facility and the rapid transformation of tens of public transport that supports the allocation of public transport buses as mobile units for random testing in different regions of Bahrain.

Moreover, the case study shows creative technological solutions by public health authorities such as the production of local ventilator, local masks, and local sanitizers, developing simulation models for Covid-19, telemedicine for new public health services, and a wide range of medical treatments (e.g. using robots on trial basis for checking body temperature and exploring Plasma treatment which involved extracting and transfusing antibody-rich plasma)⁴.

STRATEGICALLY USING COLLABORATIVE TECHNOLOGIES

Due to the physical distancing guidelines for mitigating the spread of Covid-19, digitalization played a major role for sustaining public health service delivery. Since the crisis restricted mobility locally and globally, digitization as an avenue to maintain socio-economic activities extends to the delivery of services in public and private sectors. In terms of delivering health services in Bahrain during the Covid-19

outbreak, there was a widespread adoption and diffusion of telemedicine and e-health services and other key public service like utilities and social services. Moreover, the Covid-19 crises led health organizations to be more innovative, as manifested in the adoption of electronic bracelets, e-forums, and e-health applications namely the “BeAware Bahrain” phone application that had significant impact on citizen’s awareness as it provided instant information to the people about the pandemic. Many health care services are being delivered through on-line platforms. Medical consultations were secured through video calls and medication and lab service were delivered to patient houses.

ADOPTING SOCIAL MEDIA AND STRATEGIC COMMUNICATION

Early on and throughout in the Covid-19 response, a core facet of the messaging strategy involved transparency delivered ‘first-hand’ i.e. by designated and approved speakers from the GEC.

Transparency of communication resulted in high citizens’ compliance and trust in public policy. Recognizing the potential for pandemic alarmism, a multi-tier public relations and media campaign was launched to ensure public compliance, raise public awareness and address public concerns for Covid-19. The plan mainly involves a 24-hour public hotline that answers all concerns related to the Covid-19 pandemic in Arabic and English Language, and a comprehensive Covid-19 multilingual (seven different languages) media campaign for complete transparency, disseminating advice that promotes healthy behavior on web (www.health.gov.bh) and social media channels. Effectiveness of the media plan entails

delivering a unified message and harnessing science and knowledge capabilities of the appointed speakers and social media influencers.

ENSURING SOCIAL RESPONSIBILITY AND COHESION

The case study and feedback from senior health officials indicate that the Covid-19 response elicited public support, societal partnership and community solidarity through philanthropy, volunteering, and donations. This social cohesion and innovation contributed to control public health risks and enhance public sector resilience to cope with high demand for health services.

Other contributions involve volunteered community clubs for conversion into shelters for the elderly, housing for expatriate workers and the activities generated by the national “Feena-Khair” campaign that solicited donations for containing the outbreak. The scope for volunteering was extensive with calls for helpers from a wide spectrum of public and private sectors which revealed high individual and social corporate responsibility.

COORDINATING THE DELIVERY OF INNOVATIVE SOLUTIONS AND ACTIONS

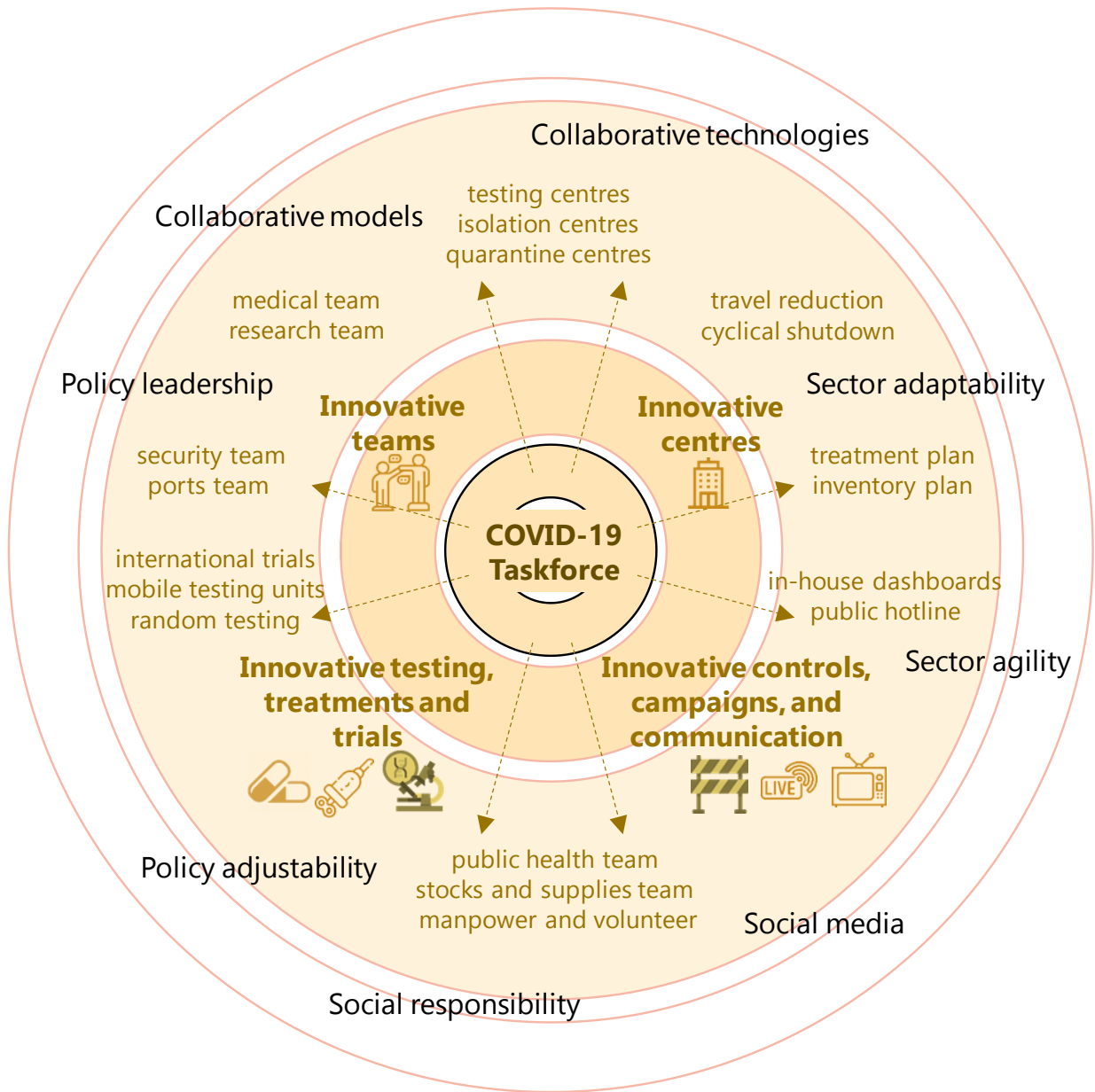
Several innovative solutions emerge out of the pandemic. These include locally manufactured masks, e-health services, and e-services. The public sector showed high level of adaptive capacity and re-structuring of services and teams that work on-line with high level of responsibility and empathy. E-services

“societal partnership and community solidarity were achieved in light of the Covid-19 pandemic; some parties sewed masks which were designed for the medical staff and were distributed it for free; some made household sterilizers using materials available at home, and some agencies designed breathing devices to support the response of the health system”.

provided platforms for delivery of medicine and food for many marginalized parts of society.

For instance, an Innovative action and proposed solution that Bahrain has undertaken, through its National Taskforce for Combating Covid-19, was the Plasma treatment which involved extracting antibody-rich plasma from post-convalescent Covid-19 patients, then transfusing it into patients who were at severe stages of being infected by the disease. The tests on the Plasma cure started in April 2020 in the

Bahrain Defense Hospital, one of the pillar outlets that are used in hospitalization and treatment of the persons infected by Covid-19.



KEY MESSAGES

Overall, this crisis shows the value of responsive public sector and citizens' awareness and compliance with basic personal hygiene practices. Innovation emerges during disruptions and states of dis-equilibrium. In disruptions, like pandemics, new models of innovation are likely to emerge despite the constraints to face the state of 'unknown known' and 'uncomfortable knowledge'. Hence, it is imperative to co-create a new model of crisis-driven innovation by crossing institutional boundaries, harnessing global networks, and adopting new business models of innovations that entail public sector innovation and open and user innovation⁵. The main messages of this policy brief are:

1. **Adapt policy to crisis situations:** It is imperative to enhance the resilience of Bahrain health sector to adapt and sustain its responsiveness and innovative capacity. The health sector in Bahrain demonstrated high level of adaptability as it was evident in the re-engineering of public services, recruitment policy, and e-services.
2. **Let innovation and leadership guide policy:** Doing things differently and swiftly could not be possible without the innovative top leadership that had foresight and urged for action across sectors.
3. **Strengthen institutional collaborations:** The pandemic propelled public, private, and civil society to share resources and best practices. The efficiency and effectiveness of public sector response was attainable through inter-sectoral coordination and synergy.
4. **Use collaborative technologies:** The ICT infrastructure is the cornerstone for coping with crises. ICT-driven innovation as experienced in e-services should be supported by investing in human capital.
5. **Strategically use official and social media and communication:** Public awareness, social media

in addition to official media played a pivotal role in reinforcing trust and sustaining citizens' compliance.

6. **Promote social responsibility and cohesion:** Philanthropy and volunteerism were manifested in value-based crowd financing, empathy and social innovation and entrepreneurship.
7. **Coordinate the delivery of innovative solutions:** Complexity in innovative service delivery exists when various actors from different institutions take part in the process. Thus, inter-ministerial and interagency coordination is the backbone capacity to ensure smooth reach to beneficiaries.

MOVING FORWARD

Insights from the Bahrain case suggest the need for multi-level learning pre-crisis, intra-crisis and post-crisis at individual, organizational, and societal levels. Strategic use of digitalization to cope with physical distancing imperatives also has implications for public policy to develop and upgrade digital capabilities as part of preparedness for future crises. Moving forward requires to enhance public management through the following measures:

- **Standardization of practice** through developing public service standards and procedures for knowledge management and organizational learning;
- **Diversification of operations** based on exploring strategic options to diversity supply chains and support local SMEs;
- **Capitalization on government-citizen messaging strategy** by anticipating and maintaining positive communication and transparency through diverse accessible media channels.
- **Alignment of knowledge management systems** that harness global knowledge and Big Data analytics to improve intelligent surveillance systems and to maintain public health services; and

- **Development of preparedness** through action learning in public and private innovation labs that support co-creative learning and foresight analysis of crisis scenarios;
- **Investment in human, social and institutional capital** within public and health sectors to sustain resilience as well as investment to encourage social entrepreneurship and further digital transformation in the public sector.

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