Viewpoint: Jordan’s Public and Surveillance Health Policies: During and After COVID-19

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ABSTRACT

The wave of the novel Coronavirus disease (COVID-19) classified by the World Health Organisation as a global pandemic has unraveled a variety of effects on health, economic and social systems. In the case of the Kingdom of Jordan, the COVID-19 crisis illustrated the need for and ability of the policymaking institutions and ministries to take many effective policies, initiatives and procedures that were met with marked approval, as evidenced by the opinion polls conducted by government and private institutions. The success of these interventions during the crisis calls upon the country’s health care system to take advantage of this experience in the next stage of recovery to develop, maintain, as well as improve a number of elements to assist the Kingdom in facing the challenges resulting from any potential future health crisis such as epidemics or natural disasters. Given the current situation, the proposed interventions must inform activities in seven priority health system areas to manage during and after the pandemic and include the following factors: (1) governance and management; (2) service delivery and research; (3) human resources; (4) health information systems; (5) technology and medicine; (6) health financing; and (7) citizens, refugees and communities.

Keywords: (COVID-19) Coronavirus, Health Policies, Kingdom of Jordan, Health Systems, Interventions.

INTRODUCTION

The Novel Coronavirus disease (COVID-19), which spread in a short time period, is classified as a global pandemic [1]. It has claimed many lives and produced millions of patients, and has disrupted health systems in many countries both developed and developing alike.

The Kingdom of Jordan was not in isolation from these events, where it recorded the first positive COVID-19 case early in March 2020. Cases began to spread gradually, with all recorded cases of people coming from infected countries or those who had come in contact with those people. Despite the ability of the virus to spread rapidly, the Jordanian government’s decisions were able to contain the spread of the disease more quickly by activating the Defence Law after the issuance of the Royal Decree, implementing social distancing policies and curfews, closing border crossings and applying mandatory quarantine in remote hotels to all arrivals from infected countries, following the World Health Organization's recommendations. In addition, cases were diagnosed and isolated in designated hospitals and contacts were traced and those with positive results were isolated early with their contacts being traced and tested. The government has also worked through its official and non-official media channels to raise awareness among citizens and to stress the importance of the application of...
personal prevention measures, staying at home, and mandated that essential operating institutions apply standards that deal with the health and safety of workers and customers. The systematic approaches and leadership thinking required for managing pandemics in times of crisis was adapted from the 2018 World Health Organization guide on managing epidemics, includes the following elements (Figure 1):

1. Preparedness notion
2. Response notion
3. Recovery notion

The objective of these strict measures was to prevent the spread of a large number of infections within a short time (controlling the speed of recorded cases), as a prelude to increasing the capacity of the health system to absorb the potential increasing numbers of cases and providing optimal health care for the infected cases and other patients, especially for critical cases that require admission into the intensive care unit [2]. The management of the Jordanian health system has been characterized during this crisis by unifying the efforts of health care providers under one leadership umbrella, including, the Ministry of Health, the Royal Medical Services, University hospitals, the private sector and reactivating the epidemic committee. A regulation was also issued to enforce all health workforce cooperation in different fields, including doctors, nurses, public health/epidemiology specialists, lab technicians, allied health professionals in hospitals and ICUs, and even the paramedics working in the Civil Defence Department. The pharmaceutical and medical supplies industry sectors were also a part of this coalition, and did not delay any efforts in providing treatment (that was temporarily approved) in sufficient amounts, in addition to providing the necessary personal protective equipment on time. The community moved along in supporting the government efforts by providing donations to the public sector in order to provide monetary support to cover the rising cost of efforts to control the epidemic’s spread and to treat cases as soon as possible in an effective manner.

The Jordanian government also provided the necessary equipment for diagnosing and treating cases free of charge (Jordanians and non-Jordanians), and free testing of contacts...
all over the Kingdom. The government was very transparent in informing the population of the number and source of cases on a daily basis, collaborated with the citizens on numerous details concerning public health, and designated government platforms to raise awareness and answer questions and inquiries that could occur to the public concerning public health issues and their daily lives. Health awareness messages were spread from many government and civil society organizations on social media and mass communication media in order to encourage a healthy lifestyle practices that promote immunity, save the community from illnesses, and prevent transmission of the infection among members of the community [3].

Public & Surveillance Crisis Interventions

The COVID-19 crisis showed the ability of the policymaking institutions to take many effective policies and procedures that were met with marked approval, as evidenced by the opinion polls conducted by government and private institutions. The success of this work during the crisis calls upon the country’s health system to take advantage of this experience in the next stage, to develop it and to guarantee its sustainability, as well as the existence of several sectors to assist the Kingdom in facing the challenges resulting from any upcoming health crisis such as epidemics or natural disasters. In a number of different aspects, we believe that the best public health evidence and interventions must inform activities in seven health system priority areas [4, 5] to manage during and after the pandemic: (1) governance and management; (2) service delivery and research; (3) human resources; (4) health information systems; (5) technology and medicine; (6) health financing; and (7) citizens, refugees and communities, as illustrated in Figure 2.

Figure 2: Seven Health System Priority Elements in Managing Pandemics
Governance and Management

Jordan needs now more than ever to develop a national umbrella that regulates all health care providers' work, both public and private, and unify their efforts to face the national health challenges at all times. The government should have the central role in maintaining public health and providing health services, and this role cannot be delegated to the private sector, especially in cases of crisis but in cooperation with it. This unified leadership guarantees collaboration and coordination among all health care providers (the Ministry of Health and Royal Medical Services and university hospitals) and with the private health providers (Private Hospital Association and health syndicates of physicians, nurses, pharmacists, laboratories and with local and international non-governmental organizations working in the area of health). The unity during a crisis can take the form of pooling resources for testing and tracing centres or clinics, ensuring unified management of field hospitals, managing the health capacity and human capital resources and workforce available. In addition, to raise the preparedness of the health system and its ability to handle national health crises by following a proactive model (planning and preparing for crisis) instead of the reactive approach (momentary reaction) [6, 7]. At the same time, adapting legislations to suit the needs of the stage and crisis, and issue legislations to address any similar issues in the future including special legislations for strict punishment and fines to those who do not comply with quarantine instructions or affect and compromise public health.

Service Delivery and Research

The future calls for reorganizing the priorities of the health system so that the model focusing on curative medicine and specialized medical technology is replaced by the public health model which focuses on preventing diseases, providing essential medical care and their causative factors, protecting and promoting health and controlling epidemics that threaten the lives of a large number of people. Creating such a health system that balances between the collective versus individual health needs could require rearranging the priority of the current health pyramid in the Kingdom, which is apparent from the amount of funds allocated and spent on curative medicine as compared to the budget assigned to public health and preventive services (less than 20%) [4, 14]. Two levels of health care can be addressed is this respect, in addition to applied research as follows:

a. Public Health Services Delivery

It is necessary to maintain active epidemiological field surveillance and development of flexible mechanisms to report cases from all sectors, and training specialized cadres on surveillance, enforce the role of local health directorates in the governorates and coordinate with cadres from the government hospitals, other health organizations, university and private hospitals and their laboratories on the local and national level. Additionally, making use of what has been gained from the crisis, following the success of home delivery of chronic disease medications, and providing health services to people in their homes in order to decrease the burden on health institutions. These home health care services can include providing routine health services for patients with chronic illnesses, the elderly, those with special needs; family planning services; vaccinations; routine medical check-up investigations and activating some e-Health services.

Activating and enabling primary health care relies on the concept of equity in providing health services and provides coordination between the different health-related sectors with the participation of the civil society organizations. The current crisis is expected to increase the unemployment rate especially among disadvantaged groups and refugees, as well as increasing the poverty
rate and affecting the provision of basic needs for many families such as food items, or the inability to pay rent and resources for accessing distance learning. Since these are considered social determinants of health then it is necessary to deal with them quickly and to assure activation of primary health care principles in remote and rural areas and to build the capacity of the health care system to provide communicable disease control services, vaccinations, ensure food security, provision of maternal and child health services and family planning, treatment of chronic and occupational illnesses, and secure environmental health in order to maintain healthy gains and to provide necessary treatment for patients. The role of primary health care also includes provision of health education and health promotion services, spreading awareness about personal preventive measures, providing institutions, factories and public facilities with public health and safety protocols in coordination with relevant institutions such as the Ministry of Labour and to ensure and follow-up on their compliance and implementation. It is worth mentioning here that the government needs to empower the provincial health directorates in the field of public health including municipalities, local councils and civil society and religious organizations, cultural clubs, schools and others in providing support for health institutions to ensure the health of citizens and its protection from COVID-19 or any other similar hazards on the long run. [8]

b. Secondary Healthcare Curative Services

The current and future stages require maintaining the coordination, cooperation and complementarity between healthcare providers (both public and private) in the preparation and processing of healthcare services. Also, the health system requires hospitals to be prepared for epidemics and isolation in different geographic parts of the Kingdom. There is a pressing need for preparing new sub-laboratories in the governorates and upgrading those existing, and maintaining them in coordination with the central laboratory and private sector’s laboratories [9]. It is necessary to set a plan to deal with the economic repercussions affecting the private sector due to the crisis whether regarding cessation of the curative tourism sector (including health tourism), reducing the capacity of hospitals, shutting private clinics, covering the costs of isolation and treating patients with COVID-19 during the crisis. There is still a pressing need to ensure the compliance with reporting acute pneumonia and respiratory disease cases or suspected cases. In addition to the surveillance from all secondary healthcare providers and guaranteeing preventing the spread of COVID-19 infection and compliance with personal protection equipment and measures for the health care providers. It is paramount to have the appropriate medical and biological waste disposal together with the optimum handling and proper reporting of deaths. Furthermore, providing basic curative services and medications to patients at risk such as those with chronic illnesses, including women in labour, pregnant and severe emergency cases while ensuring the accessibility of the necessary medications and treatments. Training health personnel including doctors, nurses, pharmacists and technicians (laboratory, radiology and pulmonology) and training the supportive paramedics cadres from the Civil Defence should continue by focusing on detecting, managing and isolating confirmed cases; active tracing of their contacts; methods of infection prevention and control to prevent the spread of infection, personal protection measures, assuring quality and proper personal communication with patients and their families. This training could be conducted via distance learning using available technology and applying international protocols and standards that are adapted locally. Certain services could also be provided to patients through telemedicine to keep hospital beds available for critical cases. Therefore, training of cadre using such mode of service provision becomes a must.

c. Applied Research

The need emerges for the presence of specialized
scientific-technical committees from a variety of backgrounds such as microbiology, molecular and genetic biology, and public health. These committees should work on studying these diseases, their causative factors, methods of transmission, testing and recommending treatments, and studying the behaviour of individuals during the time of epidemics. There is also a pressing need now more than ever to develop rapid laboratory tests and vaccines; this requires keeping samples collected from patients at the time of diagnosis and during the treatment period in specialized laboratories to be used in future scientific research. Researchers should take the lead to document the pandemic experience in a scientific manner, identify gaps and lessons learned; and define future priorities and recommendations accordingly.

It is necessary to create national databases that collect information on chronic and infectious diseases; their treatment methods; procedures followed and their results to facilitate the work of researchers and scholars to understand the nature of these diseases including this pandemic. Analysing these macro databases and processing them contributes to provision of accurate information and conclusions for the community and policy makers which will reflect positively on the reality of the health sector and its future.

The need arises to establish a biotechnology research centre on an international level and overcome logistic and training difficulties concerning the infrastructure that allows academics and researchers to study this virus and other genetic and hereditary diseases. Building communication and cooperation bridges with international technical research institutions, adopting international experiences in establishing these institutions and working to sustain them is considered one of the effective ways to enable these projects to apply international standards and keep abreast with technical developments including infrastructure, equipment and human resources.

Human Resources & Training

The need seems urgent to establish a national public health institute that provides the Kingdom with specialists in different public health areas including epidemiology, environmental health, occupational health, geriatrics, maternal and child health, behavioural health, management and health economics, in a way that ensures practical and applied training in all these areas and that provides all organisations in the Kingdom with their need for specialists. It will also conduct research at the time of crisis and contribute data for decision making and for national health policy development. The upcoming period should develop the health workforce through distance learning with an emphasis on the importance of practical training, especially in the case of medical microbiology in academic health institutions. Developing the capacity of existing human resources through continuous professional development (CPD) using remote online technology especially for the public health/epidemiology, infection control, communication skills, and safety and personal protection areas, has become a priority. The same applies to the retired health workforce; there is a need to have a database of them for easy and quick deployment so as to always have them prepared for any later similar crisis. Empowering public health specialists by equating them with health cadres working in curative medicine (in terms of salaries and professional ranks) can be one of the incentives to increase the numbers of public health professionals.

Health Information Systems

There is an urgent need for a health information system that displays the available human, technical, logistical, technological equipment and facilities in all health service organizations, at different levels of health care and in all geographical areas in order to facilitate obtaining timely data and information at the time of similar national health crises. There is also a need to develop the necessary infrastructure to activate and manage digital health systems and put in place the legislation that ensures its flow between the different
health service providers in all locations while maintaining the individuals’ privacy of the used information [11]. The establishment of a database that shows the location of the individuals in the community, their health characteristics such as the presence of chronic diseases and others and maintaining the privacy of these data is necessary. In addition to the presence of a database of retired health cadres and supportive paramedics cadres distributed throughout the Kingdom’s to utilize their services and experiences in emergency situations.

Technology and Medicine

The current crisis has manifested the limited number of intensive care beds and ventilators in the public sector and their poor distribution in the Kingdom, as well as the air pressure systems, ambulance and medical evacuation teams placing added pressure on the Civil Defence apparatus to operate and manage this service. It is important for the health system to remedy these issues in the coming stage, and for there to be a strategic stockpile of devices, tools and essential lifesaving medications during crises. It is also important to note that the local pharmaceutical industry was affected by the closing of the borders, which affected exporting medications and importing raw materials necessary for manufacturing. Also working with a lower workforce capacity and shorter working hours in compliance with social distancing at the workplace has led to decreased production. In addition, shutting down private sector clinics and declining hospital admissions reduced the demand for medicine. All this calls for the presence of a disaster management plan specific to this issue to keep this industry alive and able to meet the public health needs of the country and enriching it economically. There has also appeared the need for a national platform/ institution for health technology assessment [11] to provide the country with the best decisions about the equipment, medications, technology and health programs that have a greater benefit compared to their economic and social cost. Also, a priority that appeared relates to activating the participatory role between the industrial sector and the academic institutions to develop medical and technical products to meet the needs of the health system and to enrich the national industry.

Health Financing

During this crisis, the state implemented the universal health coverage concept through inclusion of preventive and curative health services and even logistics for the whole population in need, with the highest quality possible regardless of their financial capabilities or gender or nationality or age or social status, as an implementable concept despite it being expensive for the state but it accomplishes equity in availing essential healthcare to the whole population without financial or social barriers [12]. Maintaining this concept is essential and requires primarily uniting health insurance funds under one umbrella just as the different health services were joined with high effectiveness under one umbrella during the crisis. Indeed, the state had embarked on implementing this policy right before the crisis, but the current experience provides an example of the importance of addressing all aspects of the universal health coverage approach and not just the health insurance aspect. The importance of financing public health services, the necessity of reorienting the financing and expenditure priorities and focusing on strengthening the public health infrastructure in all aspects of high risk are also issues that have become obvious during this crisis [13]. It is expected that the foreign aid that was supporting the health sector before the crisis will decline, so it’s important now to develop alternative plans to make use of national expertise and participation of the civil society organizations in supporting the public health sector in providing health services especially to the local communities. We are aware that taking complex decisions when it comes to health financing may be difficult. We would recommend utilising both a cost benefit analysis (CBA) approach and the return on investment (ROI) approach. Such approaches may seek an optimum placing between the economically advantageous and the affordable in order to achieve the
strategic goals of reducing deaths and maintaining better health for the population. It is ideal to focus on maintaining these relationships and technicalities when it comes to health investment decisions. To simply put it, for patients, facilitating public transportation, lowering waiting times, and improving the health care service delivery in terms of quality and safety. For the providers, on the other hand, the cost of health investment, rearrangement of health priorities that require the theory of change and management of change, improving the risk management and analysis in terms of productivity and incomes.

**Citizens, Refugees and Communities**

The crisis has shown the large and vital role of the public commitment and the extent of their compliance with government policies and to a high degree such as in physical distancing, curfews and personal protection. The national studies showed that the most significant barrier to citizens’ compliance with government policies was the financial barrier, fear of social isolation and inability to catch up with distance learning. These reasons were shown as barriers to implement the policies either among the Jordanians or the refugees in the camps or the host communities. Therefore, the coming era requires directing the people and giving them the confidence in their ability to protect their own health and interests and to elicit cooperation between them and the authorities to form a supervisory authority over themselves rather than the micro-supervision of the state that exhausts the security authorities.

Based on the results of these national studies it is also necessary in the future to build national health communication programs that are developed based on known scientific theories and models to understand the factors that affect the public’s beliefs and behaviours towards different policies regarding their health and adapting them to conform with dispelling public fear and achieving the desired objective of infection prevention and control.

**REFERENCES**

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وجهة نظر: سياسات الصحة العامة والمراقبة في الأردن خلال وبعد جائحة كوفيد 19

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ملخص

كشفت أزمة فيروس كورونا المستجد (كوفيد-19) المصنفة من قبل منظمة الصحة العالمية بالجائحة العالمية عن مجموعة من الآثار على النظم الصحية والاقتصادية والاجتماعية. فقد أظهرت أزمة كوفيد-19 في المملكة الأردنية حاجاة مؤسسة صنع القرار والوزارات ومقررتها على اتخاذ العديد من السياسات والإجراءات الفعالة التي قوبلت برضى واسع. كما أوضحت استطلاعات الرأي التي أجريت العديد من المؤسسات الحكومية والخاصة. أن نجاح هذه السياسات و الإجراءات -أثناء الأزمة- ينبع من النظام الصحي في البلاد. الاستفادة من هذه التجربة في المرحلة المقبلة، لتطوير النظام الصحي وتحسين مكوناته المحافظة عليه بما يضمن استعداده بشكل فعال ومرن لمساعدة المملكة على مواجهة التحديات المتاحة. في ظل الوضع الحالي- العديد من العوامل المهمة في مجالات النظام الصحي لإدارته بشكل فعال أثناء الجائحة وما يليها، وتتمثل بالأولويات الآتية: (1) الحوكمة والإدارة؛ (2) تقديم الخدمات والبحوث؛ (3) موارد البشرة؛ (4) نظم المعلومات الصحية؛ (5) التكنولوجيا والطب؛ (6) التمويل الصحي؛ و(7) المواطنين، اللاجئين والمجتمعات.

الكلمات الدالة: (19) فيروس كورونا، السياسات الصحية، المملكة الأردنية، النظام الصحي، التدخلات.