Public health strategies for a gradual public sector lockdown lifting in Jordan and United Arab Emirates during COVID-19 crisis

Raeda AlQutob, Immanuel Azaad Moonesar, Mohammad Rasoul Tarawneh, Mohannad Al Nsour, Yousef Khader

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Abstract

This review perspective is based on the public policies and public health strategies for a gradual lockdown lifting during the 'COVID-19 crisis' for the country cases of Jordan and United Arab Emirates. While managing pandemics is critical in terms of the levels of preparedness, response and the recovery phases, it is equally vital to ensure that the measures for the exit of the lockdown period are most efficient and effective. It is critical to learn from first-wave lessons in order to systematize responses during times of crisis and executing the necessary public policies and public health strategies. The viewpoint highlights at times of lockdown lifting, areas concerned including pandemic control, healthcare capacity, training, scaling up of resources and systems and priority setting of public policies via acknowledging the challenges, developing the policy insights and setting the policy direction.

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Abstract

This review perspective presents on the public policies and public health strategies for a gradual lockdown lifting during the 'COVID-19 crisis' for the country cases of Jordan and the United Arab Emirates. While managing pandemics is critical in terms of the levels of preparedness, response, and recovery phases, it is equally vital to ensure that the measures for the exit of the lockdown period are most efficient and effective. It is critical to learn from first-wave lessons to systematize responses during times of crisis and executing the necessary public policies and public health strategies. The viewpoint highlights at times of lockdown lifting, areas concerned including pandemic control, healthcare capacity, training, scaling up of resources and systems, and priority setting of public policies via acknowledging the challenges, developing the policy insights, and setting the policy direction. The systematic approaches and leadership thinking required for lifting lockdowns in times of crisis include the three R's: Readiness, Responses and Resilience & Recovery.

Keywords: Health Policies, Lockdown, Recovery, Exit Strategy; Public Sector

Introduction

About 5.0 million people have been infected with COVID-19 worldwide, with over 324 thousand deaths as of May 20, 2020 [1]. According to the latest World Health Organization (WHO) situation report, the United Arab Emirates (UAE) has entered the community transmission phase of the pandemic with 25,063 confirmed cases and 227 deaths as of May 20, 2020, while Jordan has contained clusters of cases with 649 confirmed and 9 deaths [1]. The overall health goal while lifting lockdown is continued reduction of the incidence of COVID-19 cases in the absence of a pharmaceutical intervention such as vaccine and medical treatment. It is critical to learn from first-wave lessons to systematize responses during times of crisis. As the situation continues to evolve, public policies will similarly have to adapt to accommodate and mitigate this change and better serve their purpose of protecting the wellbeing of the population [2]. Reorienting health system priorities and public sector systems to be proactive, preventive and protective [2-4], will allow us to stay ahead of the curve, not just attempt to flatten it. Most countries including Jordan and the UAE, recently have been moving from the 'response' phase of managing in the era epidemics to the phase of 'recovery'; therefore, one of the many strategies for consideration is the lifting of public sector lockdown amongst the varying measures and initiatives. The approach of this viewpoint on lifting lockdown strategies and recommendation amongst the public sector institutions, depended on reviewing the current practices, initiative and studies in Jordan and the UAE.

Background

For the country case of Jordan, "According to the Ministry of Health in Jordan, the first confirmed case was reported on the 3rd of March. However, starting from 15th March the number of cases increased all of a sudden to 8 cases and it has been on the rise since then. According to the World Health Organization (WHO) Situation Report #83 released on 12th April 2020, Jordan was classified as "cluster of cases" transmission for the virus. [3, 4] To control this imminent threat, Jordan has enforced public health infection prevention and control measures and activated the National Epidemiology Committee. As of March 17, 2020, the government called for social distancing, seized all forms of inbound and outbound movement/ international travel, and enacted the Defence Law that transferred the authority to Minister of Defence to work and formulate orders according to the situation. [3, 4] The National Crises Management Center in coordination with government bodies took over the enforcement of and follow up on and the implementation of the Defence Law orders. Consequently, a national curfew was ordered to ensure complete country isolation. [3, 4] It also ordered a lockdown on all border arrivals to the country before March 17 from pandemic countries

and administrative governorates were isolated from each other. Children and people older than 60 years were the two groups that were specifically addressed by awareness messages. [3, 4] They were under strict stay home measures and their care takers were not allowed to accompany them outside home for any reason except for emergency cases. Confirmed and suspected COVID-19 cases from airport arrivals by 17th March were isolated in hospitals under strict supervision of qualified medical staff. [3, 4] Moreover, the government immediately took measures to ensure preparedness of the health sector. Instantly, the needed equipment and supplies for diagnosis were ordered and put under the disposal of the National Crises Management Center. [3, 4] Vigorous efforts were exerted to detect and keep track of cases and contacts by outbreak surveillance teams at the national and governorates level in order to contain the spread of the virus and to isolate the cases. The ultimate goal of Jordan was to flatten the disease spread curve in order to increase the capacity of the health system to absorb new cases." [3, 4]

In the UAE, the current widespread physical distancing and lock down measures taken and the ramping up of testing have been successful in identifying new cases of COVID-19. However, the average number of new cases (for the month of April to May) is estimated at 300 -500 per day and rising. [1,2,5] With this number, it may still prove early for the country to ease its restriction measures. At this point, planning a cautious and responsive 'exit strategy' is appropriate, but there remains a need for an even stronger capacity to test, retest, identify, quarantine, and to trace and isolate contacts. In order to suppress transmission, public health and social measures should continue both at the individual and the community levels. Individuals will need to maintain movement restriction measures at their own discretion, wearing masks in public places and keeping a 2-meter distance, and international travel restrictions will continue to be implemented. [1, 2,5] It is unknown how long this pandemic will continue, and the possibility of a surge of COVID-19 once restrictions are lifted is likely. It is advised that the government consider lifting restrictions when the number of new cases drop to between 40-50 per day; however, with (a) strict surveillance controls and, (b) 14-day intervals to identify the effect. [1, 2,5] In reality, even the best plan may not be enough, such as in the case of Singapore where lockdown was lifted after initial success, and then reinstated due to a surge in cases. [1, 2,5] Until effective pharmaceutical interventions (therapies and vaccines) are made widely available, the UAE will need to continue alternating between loosening and reinstating measures throughout this pandemic." [1, 2,5]

Lockdown Lifting Overview

In an ideal situation, the requirements for lifting the lockdown would include:

1. Control the spread of the virus in a way that ensures a continuous reduction in recorded new

cases and decrease in Reproduction Rate (R0) to less than one; that is on average, each COVID-19 infected person may infect one other person or less, over the most extended possible period. [6]

2. Preparedness of public health and curative services to contain all new cases and the contact spread chain, whether from a local source or for those who come from abroad, through the following measures: [7]

    a. The ability to epidemiologically detect suspected cases within 48 hours of the appearance of symptoms.

    b. The ability to effectively isolate all diagnosed cases in hospitals or identified facilities.

    c. The ability to detect, trace, quarantine, and monitor the close contacts of suspected or confirmed COVID-19 cases.

3. The reduction of the possibility of the spread of the COVID-19 in congregated settings with a large number of people that are in close contact in the most vulnerable populations and areas such as nursing homes, nurseries, kindergartens, schools, universities, restaurants, religious or entertainment events (that is, minimizing outbreak risk in unique settings).

4. The ability to manage evacuated returnees and those crossing the borders (shipments) to minimize the risk of spreading the epidemic (importation risk management)

5. The community and citizens should be aware of the measures to be taken when responding to lifting the lockdown (open up) gradually. In addition to, the expected risks, commitment, and collaboration by identifying and reporting any new cases, and cooperating to prevent the re-spread of the disease in large numbers. [6]

It is paramount to consider the notions of priority setting of public policies when it comes to lifting the lockdown via acknowledging the challenges, developing the policy insights and setting the policy direction. [5,8]

Lifting Public Sector Lockdown Strategies: Jordan and United Arab Emirates

Jordan and UAE have already started the gradual lifting of the lockdown few weeks back either on the private businesses and some industries or on local communities (Governorates and Authorities). The movement timings of the lockdown implementation are a critical element; since the access to public services and offices were restricted. As an effort to partially lift the lockdown measures, movement were allowed during specific times in both country cases. During the lockdown, there

were restrictions in terms of moving to and from public sector offices; only those essential employees were permitted to move during the usual working hours of the public sector services. In Jordan, the public sector lockdown lifting started by permitting citizens to leave homes between ten o'clock in the morning until six at night, including the essential public offices such as the provision of medications for chronic patients, social security services with minimal capacity, food supply government posts. While, in UAE there is a partial lifting in the lockdown measures whereby residents are allowed to leave their homes between six o'clock in the morning until ten o'clock at night without a permit; including the essential public offices such as justice, foreign affairs, education, health, residency, infrastructures, municipalities, and judiciary.

Since the process of the lockdown has already started, it may not be necessary to wait for all the ideal requirements for lifting the lockdown to exist to open up on the public sector institutions. Accordingly, we provide viewpoints on the most important strategies that may enable the opening process to achieve the overall goal of continuous reduction in the spread of the disease (case incidence) while gradually restoring normal life for the society and the economy. The proposed strategies are suggested to take place slowly in stages, with performing an epidemic situational assessment at each stage, to ensure there are no new cases detected. Once the stage proves successful, then one can move to the next step. In case of any deterioration in the epidemic situation, it will be possible to return to the lockdown measures.

What strategies need to be in place?

The lockdown which was initiated around mid-March and which has lasted strictly till about the end of April has caused a lot of economic and social suffering especially for the informal sector, the big businesses, private clinics, and the disadvantaged groups. This has created a lot of voices calling for rapid lifting of the lockdown which was considered and done gradually. However, the public sector including, health, higher education and vocational training, transport, etc. remained almost completely locked. This viewpoint addresses the public health strategies and recommendations for gradual lifting of lockdown on these later sectors.

The systematic approaches and leadership thinking required for lifting lockdowns in times of crisis include the three R's: Readiness, Responses and Resilience & Recovery (Figure 1). The first phase, readiness focuses on coordination, training and preparedness; the second phase, responses refer to the laws, engagements with public, communities and civil society and policing; and the third phase, resilience and recovery indicates the opportunity for lessons learnt and building resilience plans for the future. The following are the twelve recommendations and strategies for lifting the lockdowns

with examples from the country cases of Jordan and the UAE.

Figure 1: The 3 R's of Systematic Approaches and leadership thinking required for lifting lockdowns

Readiness
1. Coordination of Emergency Taskforces
2. Training & Capacity Skills Building
3. Increase Preparedness for Health Resources
4. Increase Preparedness for Health Services

Response
5. Legislation & Laws
6. Public Engagement
7. Public Awareness and Education
8. Civil Society Institutional Awareness
9. Judicial Policing

Resilience & Recovery
10. Resume Life & Document Lessons Learnt
11. Health Resilience & Surveillance Assessments
12. Public Policy & Priority Setting

First Phase: Readiness

1. Coordination of Emergency Taskforces: Coordination between the local COVID-19 National Disaster Management Committee and the National Infection Control Committee in addition to the various ministerial government departments in order to manage and coordinate the opening process and public sector lockdown lifting nationally.1

2. Training & Capacity Skills Building: Provision and training of sufficient numbers of COVID-19 investigation teams to be qualified for: [7,9]

    a. Conducting random COVID-19 testing of high-risk groups, hot foci, and from different institutions that have a high population density such as nursing homes, institutional homes, refugee camps, labour accommodations and labour camps.

   b. Scaling up and continue contact tracing.

   c. Carrying out random testings of communities, industries, and institutions to detect asymptomatic cases.

   d. Sentinel surveillance of the workforce at different workplaces.

These measures aim to ensure that spread of the virus is under control and that there is an ability to detect and isolate new cases that may crop up due to rapid opening and to quarantine their contacts. It also will provide insight into how much herd immunity has been achieved. The most important criteria that should be monitored while applying this strategy are:

   - The occurrence of an unexpected spike in new cases

   - Continued reduction in the number of cases of unknown source

   - Rapid identification and control of hot spots and proper control of cases and their contacts

3. Increase preparedness for health resources: Raise the preparedness of available public laboratories and their technical and working staff and, when necessary, training and seeking assistance from the private sector, retirees, and even unemployed relevant laboratory science graduates to accommodate the expected increasing number of COVID-19 polymerase chain reaction (PCR) diagnostic tests need. The customary protocol requires conducting 152 screening tests for each 100,000 people per day, [10,11] which may be difficult to take place in low resource setting such as Jordan; however, there are over 140 thousand COVID-19 testing completed with a 13,760-test ratio to 1 million population conducted throughout the crisis period. [11] In the UAE, there are over 1.5 million COVID-19 testing completed with a 158,000-test ratio to 1 million population. [12-15] However, these figures indicate the large effort and burden needed to apply this strategy, including:

   - Providing large numbers of test kits

   - Training the 'field infection investigation' team staff on the protocol of COVID-19 field sample collection and other laboratory technicians on the protocol of COVID-19 test running in the laboratories

   - Ensuring safety and personal protection measures for the workers

4. Increase preparedness for health services: Increase the preparedness of hospitals and other curative service delivery posts by at least 20% to accommodate possible increases in the number of new cases requiring medical care at the national level. The new building of field hospitals is evident with bed capacity up to 3,000 in the case of the UAE. [5]

Second Phase: Responses

5. Legislation & Laws: Manage opening up at the provincial level by promoting the activation of the Decentralization Law or any relevant local government legislation. The experience of Jordan in managing the crisis in some governorates such as Irbid and Alaqaba in investigating foci of COVID-19 outbreaks proved successful. This experience can be expanded to delegate the management of the opening-up measures at local levels to local government and local executive boards. A through involvement of local community stakeholders who know which sectors have the highest priority to be opened. Depending on the situation in each province, brigade and locality in Jordan, and with continuous daily coordination at the national level, requires a more community-oriented lifting strategy to be achieved. Therefore, the roll-out strategy is to gradually have a percentage of employees returning to the public offices. Recently, in the UAE, a small number of public sector staff were allowed to work from the office, but this cannot exceed 30% of the total number of employees. [12]

6. Public Engagement: The effective involvement of the communities, stakeholders, and individuals in the opening up strategies across the public sectors is paramount. This strategy will encourage their serious buy-in commitment to reduce the number of new cases. They can be empowered to actively be involved in monitoring the case incidence by providing and encouraging innovative methods to report on suspected cases; in person through private electronic platforms or to report on suspected cases in the workplace or among friends and family via other methods such as social media communication and different modes (event-based surveillance) and public information. [14]

7. Public Awareness and Education: It is paramount for the effective public communication of the situation on the ground and the policy measures that the government in a timely manner will contributed to raise the awareness levels. In addition, raise health awareness and provide health education and public safety information to the public. This responsibility falls on both public, private, and civil society institutions alike (whole government approach and the whole of society. [16] While it is expected that the leading role of raising health awareness of the disease and methods of social distancing lies on the Ministry of Health shoulder, the different public institutions that will open up have a significant role in raising awareness about the disease, social distancing measures [17] and personal protection measure using scientific models such as the Health Behavior Model. All institutions should be aware of their role on providing guidance on personal protection measures, social distancing, and on identifying the most critical symptoms of the disease and on reporting suspected cases or their contacts, and

on self-isolation for a minimum of 14 days and on carrying out further tests to assure the results are negative. For instance, citizens in Jordan and UAE during lifting were 'required to not leave the house with exceptions for daily walking (Jordan) /exercise (UAE), grocery shopping, and 'essential' trips and there is evidence of coordinated public information campaign (e.g. across traditional and social media). [12, 14] Health awareness and promotion could be done in a comic way, a method that has proven to be effective in changing health behavior, especially in men (humorous persuasion). [18] It can also be done by using religious symbols close to some groups of the society to reach most social classes and geographical areas and working environments and institutions.

8. Civil Society Institutional Awareness: Involving civil society institutions in all phases of the opening process. The public sector is an essential partner in this crisis either in terms of raising awareness and field education of families and local communities or by involving them in infection field investigation measures. However, in the latter, they should receive adequate training in reporting suspected cases and in tracing their contacts. Civil society can also contribute to providing essential services to vulnerable populations in UAE and Jordan, such as refugees, people with special needs, the elderly, orphanages, and other workers. According to the latest MOHAP reports, [11] more than 97,645 workers from 31 labour accommodations were tested, and contact tracing for coronavirus and a few of these cases were found to be positive.

9. Judicial Policing: Activating the role of the "Judicial Police" and giving them authority to refer establishment or institution or individuals who do not comply with personal protection measures and social distancing to the relevant authorities under the activated emergency legislation. The strictness of government policies adherence in Jordan and UAE is vital including, school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; general information campaigns; restrictions on internal movements; and international travel controls. [14] For instance, according to local UAE reports, recently, Sharjah Police issued 3,901 fines for violating movement restrictions, and in Dubai fines, 52,000 for violating restrictions were given to citizens and residents. 18 Such measures will make lifting the lockdown easier as they ultimately will reduce the case incidence and help the government to resume its activities gradually in a safe environment.

Third Phase: Resilience & Recovery

10. Resume Life & Document Lessons Learnt: Take advantage of the comprehensive database

found in some public or private institutions that show population data at the level of the neighborhoods on the lessons to be learnt. [4] In addition, highlighting how different services are distributed in each area, in addition to the resources available at local communities and institutions so that each area can work on its own and to facilitate making use of health and non-health services to detect and isolate cases and trace contacts [13]and quarantine suspected cases easily. [5]

11. Health Resilience & Surveillance Assessments: Re-start the provision of public services at national and local levels. This will decrease the burden on the secondary care level which needs to be ready for possible increase in number of COVID-19 cases. [17] In the UAE, telehealth services have been into implementation during the COVID-19; such telehealth services should be continued as to lessen the burden of healthcare services in preparation unlikely confirmed cases increases. [5]

12. Public Policy & Priority Setting: Setting criteria for lifting the lockdown beginning with vital public sectors such health and food security followed by the other sectors in a gradual manner that gives enough time after the opening to detect any new cases or suspected cases and their contacts. [5, 7] The standard strategy is to return to shut-down at any time the epidemic situation deteriorates. The proposed criteria that may be used depends on:

   a. the contact intensity and density; that is either high-risk exposure contacts who have spent 15 minutes or more in close proximity to (2 meters or less) or in a closed environment; or low-risk exposure contacts who are still at risk but who have not been exposed to each other for as long

   b. the number of persons or crowd number (contact number) which is given a value that range between high, medium and low; [5,19], and

   c. crowd reduction (risk modifying likelihood ability) which describes the institution ability to introduce measures such as spatial distancing in the place's design or physical distancing such as the number of people in contact within 2-meter distance. These criteria are also given a value that ranges between high, medium or low.

Based on the assessment of these three criteria and the consensus on the value, vital sectors could be

the ones to start opening up while actively monitoring and case detection largely and continuously is sustained keeping up in line with the criteria mentioned above.

Way Forward

It is critical to reinforce the notions of priority setting of public policies and public health strategies when it comes to lockdown lifting nationwide and keeping in mind the challenges that may lie ahead, having the mobilized teams in place for developing the policy insights and setting the policy direction [20] and execution. Jordan as well as UAE way forward public health strategies after the lifting the lockdown on public sector should have policies in place to increase public awareness on and implementation of the most important public health measures with a focus on physical distancing and personal protective equipment (PPE). It should also increase the number of PCR tests particularly for vulnerable population and areas., and strengthen the contact tracing. The preparation of the health system secondary care facilities, equipment and supplies in addition to the adequate number of trained and skilled health workers is a must in light of potential resurgence of new pandemic wave.

Acknowledgments

Authors' Contributions

RAQ and IAM conceptualized and led the study as the primary investigators and wrote the manuscript. MRT, MAN, and YSK conceptualized the study, implemented the method, and contributed to the manuscript.

Conflicts of Interest

The authors made reference to three own previously published work related to the viewpoint.

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