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Assessing Multisectoral Collaborations in the COVID-19 Pandemic Response in Selected Arab Countries

Acknowledgements

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List of acronyms

AED	Arab Emirati Dirham		**NSC**	National Security Council
BD	Bahrain Dinar		**NWS**	Northwest Syria
CSO	Civil Society Organization		**OCHA**	United Nations Office for the Coordination of Humanitarian Affairs
EMR	Eastern Mediterranean Region			
EOC	Emergency Operations Centres		**PHEIC**	Public Health Emergency of International Concern
FMoH	Federal Ministry of Health			
GDP	Gross Domestic Product		**PoE**	Points of Entry
HAICA	High Independent Authority for Audio-visual Communication		**PPE**	Personal Protective Equipment
			RandD	Research and Development
HRH	His Royal Highness		**SOP**	Standard Operating Procedures
HDI	Human Development Index		**SPCC**	Sudanese Platform for Combating Coronavirus
ICU	Intensive Care Unit			
IHD	The Idleb Health Directorate		**SR**	Saudi Riyal
IMF	International Monetary Fund		**STC**	Southern Transitional Council
IOM	International Organization for Migration		**TND**	Tunisian Dinar
IPC	Infection Prevention and Control		**UAE**	United Arab Emirates
JD	Jordanian Dinar		**UHC**	Universal Health Coverage
KSA	Kingdom of Saudi Arabia		**UN**	United Nations
LBP	Lebanese Pound		**UNDP**	United Nations Development Programmeme
MERS-CoV	Middle East Respiratory Syndrome Coronavirus		**UNFPA**	United Nations Population Fund
			UNHCR	United Nations High Commissioner for Refugees
MOPHP	Ministry of Public Health and Population			
NCC	National Committee for COVID-19		**UNICEF**	United Nations Children's Emergency Fund
NCEMA	National Emergency Crisis and Disasters Management Authority		**UNOCHA**	United Nations Office for the Coordination of Humanitarian Affairs
NCRA	National Coronavirus Response Authority			
NCSCM	National Centre for Security and Crises Management		**USD**	United States Dollar
			WASH	Water, Sanitation and Hygiene
NFIs	Non-Food Items		**WFP**	World Food Programmeme
NGO	Non-governmental Organization		**WHO**	World Health Organization

Background

The COVID-19 pandemic is challenging health systems and economies around the world. A public health crisis of such magnitude cannot be solved by the health sector alone, nor can any single agency working alone control and mitigate its impact. An effective response requires concerted multisectoral efforts that involve public, private and civil society actors within and beyond the health sector (Chen and Yang, 2020; Patel and Jernigan, 2020). In response, countries around the world are taking unprecedented measures to combat the spread of the disease, while ameliorating its devastating impact on the economy and labour market.

Tackling the multisectoral nature of health challenges requires structured multisectoral coordination among state and non-state actors, all of which are critical for shaping a more effective response to the pandemic. The approach of multisectoral action for health is widely recognized (Larsen *et al.,* 2014), with many previous national and international applications including for malaria elimination, tobacco control, HIV/AIDS prevention, Finland's community-based cardiovascular disease prevention project (North Karelia Project), and Singapore's Health Promotion Board (Salunke and Lal, 2017). Multisectoral collaborations to address the COVID-19 pandemic are increasingly being explored in a number of countries including China, Ethiopia, Indonesia and Nigeria (Ali *et al.,* 2020; Health Cluster, 2020; Chen *et al.,* 2020). Nonetheless, successful initiatives in this area remain a challenge, with little formal understanding of the general principles that contribute to effective multisectoral collaboration.

In the Arab States region, it remains unclear to what extent macro-level multisectoral policies and programmemes have been adopted in the pandemic response, including the mechanisms and governance arrangements in place and the key sectors and actors involved. This study, therefore, aims to:

- Assess the extent to which 'multisectoral' collaborations have been employed in the national COVID-19 pandemic response in selected Arab countries;

- Explore barriers and enablers to using the multisectoral approach to respond to COVID-19; and

- Generate recommendations on how to promote multisectoral approaches for public health emergency responses in the Arab region for current and future public health crises.

For the purposes of this study, we focused on nine Arab countries. The selected countries represent different income groups (according to World Bank categorization) and reflect the three different groupings of the Eastern Mediterranean Region (EMR*) countries based on population health outcomes, health system performance and level of health expenditure (World Health Organization Regional Office for the Eastern Mediterranean [WHO EMRO], 2015). Additionally, they fit the Human Development Index (HDI) distribution. The nine selected countries are as follows:

High-income countries/ Group 1 countries/ Very High Human Development Index (HDI)	Middle-income countries/ Group 2 countries/ High HDI	Low-income or fragile countries/Group 3 countries/Medium or Low HDI
BAHRAIN	**JORDAN**	**SUDAN**
SAUDI ARABIA	**LEBANON**	**SYRIA**
UNITED ARAB EMIRATES	**TUNISIA**	**YEMEN**

*WHO's Eastern Mediterranean Region covers: Afghanistan, Bahrain, Djibouti, Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, the Occupied Palestinian Territories, Qatar, Saudi Arabia, Somalia, South Sudan, Sudan, Syrian Arab Republic, Tunisia, the United Arab Emirates and Yemen.

Analytical Framework

A multisectoral approach refers to deliberate collaboration among various stakeholder groups (e.g. government, civil society, and private sector) and sectors (e.g. health, environment and economy) to jointly achieve a policy outcome (Salunke and Lal, 2017). While the multisectoral approach is advocated as one of the strategies to address complex health and development challenges, there is limited clarity about the process and execution of multisectoral collaboration in practice (Mahlangu, 2019).

To formalize multisectoral collaboration for this study, we constructed an analytical framework that builds on existing frameworks for multisectoral approaches and action with respect to health, policy analysis and social development (WHO, 2012; Juma *et al.,* 2016; Kruvilla *et al.,* 2018; Mahlangu Goudge and Vearey, 2019; Sanni *et al.,* 2019; WHO, 2018; WHO, 2020a), drawing on policy responses to the COVID-19 pandemic (Chen, Cao and Yang 2020; Fisher 2020; Haug *et al.,* 2020; Oxford 2020; WorldoMeter). The framework encompasses key components and elements critical to a process of multisectoral collaboration (Table 1).

Table 1: Analytical framework for multisectoral approach to pandemic response

CATEGORIES	ELEMENTS	INDICATORS
TRIGGERS		Political, social, economic, health context driving the multisectoral collaboration on a particular issue
INSTITUTIONAL MECHANISMS AND PROCESSES	Coordination	Mechanisms for coordination, e.g. interministerial committees, cabinet committee chaired by the Prime Minister, ministerial linkages, cabinet committees and secretaries, parliamentary committees, interdepartmental committees and units
		Mechanism linked to mandate (law, decree, etc.)
	Communication	A communication plan including strategies to manage power dynamics in conversations
		Means of engagement of other sectors, such as consultations, workshops or meetings
	Conflicting interests	Mechanisms for conflict management and building trust

CATEGORIES	ELEMENTS	INDICATORS
ACTORS	Sectors and stakeholders	Leadership in charge of response
		Government sectors involved
		Non-state actors involved - Multilateral organizations and United Nations entities - Local non-governmental organizations - Public health disciplines/experts - Civil society organizations - Private entities
		Citizens and media
	Roles and responsibilities	Roles and responsibilities linked to mandate
		Written agreement on roles and responsibilities
		Standard operating procedures (SOPs) defining rules and norms governing interactions among members
ADMINISTRATION, FUNDING AND EVALUATION	Execution	Level of implementation: - Horizontal integration - Vertical integration -Mix of horizontal and vertical
	Funding	Amounts and sources of funding for policy implementation
		Cost-sharing mechanism/funding arrangements
	Monitoring and evaluation	Mechanisms for monitoring and evaluation
		Measurable outcomes or indicators set to measure impact
		Accountability framework

CATEGORIES	ELEMENTS	INDICATORS
ADMINISTRATION, FUNDING AND EVALUATION	Degree of multisectoral action	Communication: A one-way relationship where information from one sector is shared with other sectors.
		Cooperation: This involves optimizing resources while establishing formalities in the work relationships. It results in a loss of autonomy for each sector.
		Coordination: Adjusting the policies and programmemes of each sector. This leads to increased horizontal networking among sectors. Shared financing sources may be used.
		Integration: This may entail systematic integration of objectives and administrative processes and the sharing of resources, responsibilities and actions. A formal partnership with shared responsibilities ensures the achievement of a common goal.
IMPACT	Comprehensiveness of policy measures	COVID-19 pandemic response policies: - Public health measures - Social measures - Economic measures
	COVID-19 health outcomes	Total cumulative COVID-19 cases
		% of COVID-19 cases
		Active COVID-19 cases
		Total COVID-19 deaths
		Case fatality rate (% of deaths out of total cases)
		Total tests conducted

CATEGORIES	ELEMENTS	INDICATORS
IMPACT		Tests per 1 million population
		% of positive COVID-19 cases out of tests conducted
		Overall pandemic response from a health perspective and based on the above epidemiological indicators
ENABLING FACTORS	Barriers and facilitators	Barriers to multisectoral collaboration
		Facilitators to multisectoral collaboration

We used the framework to analyse the macro-level pandemic response plans in selected Arab countries. For each component, we assessed the extent to which the desirable elements were present, as well as the variations within and across the selected countries.

Methodology

Study design

The study employed an in-depth analytical research design using a case study approach, and was conducted in two phases. The first phase consisted of data collection using a comprehensive documentation review. In the second, key informant interviews were conducted to validate findings from the first phase and gain additional insights and feedback. The study extended from October 2020 to March 2021.

Data collection

Documentation review

This step involved a review of policy documents, protocols, guidelines, strategic plans and programmemes, legislative acts, reports, and research papers, in order to collect data on the different components of the framework for each country. Documents were identified and obtained from governmental websites and offices, relevant donor or non-governmental organizations, development partner websites and online databases.

We searched PubMed and Google Scholar using the following search strategy: ("novel coronavirus" OR COVID-19 OR pandemic OR SARS-COV-2) AND (response OR government OR intervention* OR policy OR policies OR national OR "cross-sectoral" OR programme* OR intersectoral OR "multisectoral" OR governance OR collaboration* OR coordination OR "whole-of-government") AND ([country name]). We also searched the websites of governmental bodies, ministries and public agencies of each country for national-level reports, legislations, plans and documents. Additionally, we searched the websites of key intergovernmental organizations (e.g. UNDP, UNHCR, WHO, ICRC, UN, World Bank), think tanks, research institutions and universities for relevant studies. Finally, we reviewed key media outlets for relevant news articles on the pandemic response from each selected country.

Retrieved documents were reviewed and findings pertaining to the framework abstracted and summarized in a unified Excel sheet.

Key informant interviews

Key informant interviews were conducted with selected stakeholders from the study countries. The interviews served two purposes: to validate the findings emerging from the documentation review (and fill identified gaps); and to gain additional insights on key barriers, facilitators and lessons learned from promoting multisectoral collaboration in the COVID-19 pandemic responses. An interview guide was developed, informed by the conceptual frameworks.

Eight key informants (three policymakers, three researchers, one public health expert, and one representative from intergovernmental organization) were interviewed, representing the following low- and middle-income countries: Jordan, Lebanon, Sudan, Syria, Tunisia and Yemen. We could not interview informants from high-income countries due to lack of response from participants; however, the adequacy of publicly available information from these countries partially offset this potential limitation. The interviews were conducted virtually (via Zoom) by the lead researcher (Dr. Fadi El-Jardali) or co-lead researcher (Racha Fadlallah) and lasted between 40 and 60 minutes each. Interviews were digitally recorded after obtaining verbal consent from interviewees; interviewees who declined to be recorded had their responses recorded through extensive notetaking.

Data analysis and synthesis

The data generated from the documentation review and key informant interviews were collated and analysed in aggregate form, then categorized according to the six components of the analytical framework (Table 1), rather than by data source. We used a deductive content analysis approach to synthesize data, which is appropriate for policy-relevant qualitative data (Juma *et al.,* 2016; Sanni *et al.,* 2018). This approach uses an analytical framework featuring key constructs and variables as initial coding categories while leaving room for other emerging themes outside the framework.

The first stage of data analysis consisted of analysing and coding data obtained from the documentation review according to the six components of our framework. Next, stakeholder interviews were conducted to validate the findings generated from the first step of analysis and obtain additional insights. Findings were coded according to the framework. Emerging themes were then compared to those from the documentation review, and information added or validated where appropriate.

To deepen our understanding of the issue and increase the reliability and validity of findings, we triangulated the data by cross-checking across different data sources.

The study was conducted following standard ethical guidelines and protocols. Participation in this study was voluntary. The confidentiality and anonymity of responses were ensured at all times. No names or identifiers were linked to any of the findings.

Results

We present the findings according to the following analytical framework components:

1	2	3	4	5	6
Trigger	**Institutional mechanisms and processes**	**Actors**	**Administration, funding and evaluation**	**Impact**	**Enabling factors (barriers and facilitators)**
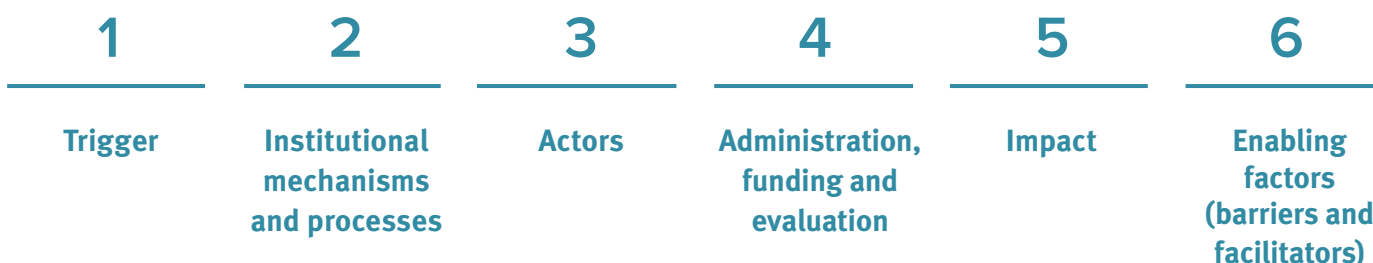
1
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Trigger

On 8 December 2019, respiratory illness caused by a novel coronavirus (COVID-19) was first identified in Wuhan, China and subsequently reported to the public by the end of the year (Chen and Yu, 2020). On 30 January 2020, the WHO Director General declared that the outbreak constituted a Public Health Emergency of International Concern (PHEIC). On 11 March 2020, WHO declared COVID-19 a pandemic, signaling to the world that continued spread is likely, and that countries should prepare for the possibility of widespread community transmission.

The COVID-19 pandemic has posed an unprecedented challenge to health systems, economies and societies around the world. The first cases of COVID-19 in the Arab region were reported on 29 January 2020 by the Ministry of Health and Prevention of the United Arab Emirates (UAE). Within a short period, all 22 Arab countries had recorded COVID-19 cases. The sweeping scale, breadth and impact of the pandemic rendered it of utmost priority. The recognized interdependencies amongst sectors and the need to work with others triggered the establishment of multisectoral collaboration in response.

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Institutional mechanisms and processes

Since the confirmation of the first COVID-19 cases in the Arab region in late January 2020, the nine countries selected for this study have developed national preparedness and response plans as part of the multisectoral COVID-19 response. In the majority of the high-income (Bahrain, UAE) and middle-income countries (Jordan, Tunisia), the multisectoral response has been led by the government through the engagement of the Prime Minister's offices, high governmental and ministerial councils, or offices in charge of crises of national concern. In contrast, the response in low-income countries (Sudan, Syria, Yemen) has been led by intergovernmental agencies (specifically United Nations (UN) entities and WHO) in collaboration with respective ministries of health, which did not permit significant interactions among other government departments (see Table 2).

A coordinated response is critical to provide better inter-agency coordination and response mechanisms. Despite gaps in leadership capacity, the majority of countries had established coordination mechanisms to facilitate interaction between sectors and actors before the first reported confirmed cases in their respective countries (Table 2). Specifically, the formation of coordination committees at the level of the Prime Minister's or President's office, or cross-ministerial committees at ministry level, were identified as the primary mechanisms through which these forms of multisectoral action were realized. However, the mandate and influence of these committees varied, with uncertainties regarding how they functioned, particularly in terms of the closeness of the cooperation and the working methods. With the exception of Lebanon, Jordan, Tunisia and UAE, the established coordination mechanisms were not mandated by a decree or law.

Beyond bringing sectors together, effective collaboration requires sectors to communicate and engage in meaningful participation (Man, 2018). In the majority of selected countries, regular meetings were reportedly being held (either in person or online), some of which were followed by press briefings. However, it was not clear how coordination at this level was enabled; there was no evidence of robust communication planning, including strategies for promoting consensual decision-making and managing power dynamics in conversations. Furthermore, all nine countries lacked mechanisms for conflict management and trust-building within the very structures created to facilitate interaction and ensure commitment among different actors at the national level. Some conflicts were even highlighted in a few countries. For instance, the implementation of the national COVID-19 strategy in Sudan was complicated by internal conflicts within the Federal Ministry of Health (FMoH), which led to the layoff of more than four senior staff of the ministry, and the resignation of five more senior FMoH staff (Kunna, 2020). The resignation decision was reported to be due to the "lack of structured decision-making and the absence of consultations and democracy, resulting in confusion in many decisions that were taken unilaterally without referring to the senior management team and with no consideration to their advisory role". This conflict within the ministry of health and the health sector has negatively affected the COVID-19 response in Sudan at a time when united efforts and strong, committed leadership are highly needed.

An overview of the institutional mechanisms and processes for national coordination of multisectoral responses employed by each country is provided below, categorized by income level.

High-income countries

In **Bahrain**, the first case of COVID-19 was reported on 24 February 2020. In response, Bahrain set up a high-level National Taskforce for Combating the Coronavirus (COVID-19) 'Team Bahrain' that developed the required testing and isolation facilities in a relatively short time (Bahrain News Agency, 2020).

In the **Kingdom of Saudi Arabia (KSA)**, a national committee was formed to follow global updates and to prepare for the possible introduction and spread of the virus from early January 2020. On 6 February 2020, a month before announcing the first COVID-19 case in the country, the Saudi Government took an early proactive decision in response to the spread of COVID-19 by stopping all direct flights between KSA and China. A national COVID-19 follow-up committee was established, consisting of representatives from 13 ministries and government agencies led by the Minister of Health, and appointed to develop the pandemic control plan (Ministry of Health News, 2020; Saudi Press Agency, 2020). The committee is responsible for following all developments related to the virus, coordinating among relevant authorities, and ensuring that precautionary and preventive measures are implemented. Since its formation, this committee has held regular in-person meetings under the chairmanship of the Health Minister and the presence of the relevant governmental entities, to review COVID-19 updates and reports and discuss the epidemiological situation globally and locally. Following the meeting, a press conference is always held to provide public updates on the situation and the measures to be adopted nationally.

In the **United Arab Emirates (UAE)** a national management authority was already in place before the pandemic. The National Emergency Crisis and Disasters Management Authority (NCEMA) was established in 2007 within the organizational structure of the Supervision of the Supreme Council for National Security and based on a decree by Federal Law No 2 for the year 2011 (The Supreme Council for National Security, 2020). It is responsible for regulating

and coordinating all emergency, crisis and disaster management efforts as well as developing national emergency response plans. Its work focuses mainly on coordinating the roles of relevant governmental parties in the event of an emergency, crisis or disaster and following up on their implementation plan. In line with the UAE Government's plan and increased efforts to combat COVID-19, the NCEMA announced the formation of the National COVID-19 Crisis Recovery Management and Governance Committee on 31 October 2020 (Emirates News Agency, 2020). The Committee is chaired by the Minister of Industry and Advanced Technology, and includes representatives of 23 ministries, government agencies and federal departments. The roles of the Committee include identifying key performance indicators for the post-COVID-19 phase with respect to targeted sectors, establishing an electronic data link for digital indicator-based statistics, and identifying the financial and economic resources required for supporting the recovery phase.

Middle-income countries

In **Jordan**, the fight against COVID-19 was led by the Government through a collaborative multi-disciplinary team at the highest levels at the National Centre for Security and Crisis Management (NCSCM), an umbrella organization established in 2015 under the Royal Court to coordinate and unify the efforts of national institutions during national crises. In late January 2020, the Jordanian Government created a Coronavirus Crisis Cell within the NCSCM (Brookings Doha Centre, 2020). This centre employs several specialized teams in security, health, economy, education and politics, in addition to current government ministers. After registering the first COVID-19 cases, the Government set up 10 emergency response teams to cope with the crisis: Health Care Committee; Social Protection Committee; Field Management Committee; Monitoring Borders, Crossings and Airports Committee; Education and Distance Learning Committee; Strategic Stock Committee (strategic stock of goods and food); Continued Coordination between Private and Public Sector Committee; Media Follow-Up and Awareness Committee; Protection of National Economy Committee; and Legislative Committee (UNICEF and Jordan Strategy Forum, 2020).

On 31 January 2020, the newly appointed Government in **Lebanon** established a National Committee for COVID-19 (NCC) to oversee national COVID-19 preparedness and response to mobilize resources, monitor country-level activities and facilitate coordination among relevant ministries (Ministry of Public Health, 2020; Khoury *et al.,* 2020). The committee is chaired by the Minister of Health and is composed of experts in infectious diseases and representatives from the WHO local office. This committee conducts regular meetings to assess the COVID-19 situation at the national level and issue recommendations (Ministry of Public Health, 2020).

The **Tunisian** Government, on the other hand, was slow to take preventive measures. With the first official case declared on 2 March 2020, local authorities tried to keep open the most important transport lines, especially with France and Libya, and implemented travel limitations to Italy, the suspected origin point of the first case, one week after recording the case (Otay, 2020). The government response only effectively began to take place during the mid-March period (Brookings Doha Centre, 2020). On 25 March, the Government created the National Coronavirus Response Authority (NCRA) to centralize and unify measures in response to the pandemic. The NCRA is tasked with coordinating the actions of the country's 24 governorates. The NCRA is directly supervised by the Prime Minister and works with the National Security and Defence Council (supervised by the President), which addresses potential threats to the country's security, independence, or national integrity. Overall, the main drivers of Tunisia's COVID-19 response are the President, the Prime Minister, the Minister of Health, and the Minister of the Interior (Jrad, 2020). It is worth noting that NCRA was created despite the presence of pre-existing national entities which it has been tasked with overseeing: the National Committee for Disaster Prevention and the Response and Relief Organization, which was established in 1993 under the Ministry of the Interior and has been in permanent session since 21 March 2020 as a result of the pandemic (Jrad, 2020). The National Security and Defence Council, also in place before the pandemic, has a permanent role in the event of imminent danger threatening the national integrity, security or independence of the country or at times of crisis, but has not yet created a commission in response to the COVID-19 health emergency (Jrad, 2020).

Low-income countries

In **Sudan**, the FMoH, with the support of WHO, developed a country strategy to confront the pandemic. It includes a series of measures such as ensuring country-level coordination, planning and monitoring, setting up surveillance, rapid response team and case investigation and management, setting up national labouratories for testing, and providing operational support and logistics (Humanitarian Country Team and United Nations Country Team [HCT and UNCT], 2020). Early in March 2020, the ruling cabinet of ministers and the Sovereign Council in Sudan formed the High Committee for Health Emergencies to coordinate governmental and non-governmental efforts for combating COVID-19. All COVID-19 related measures and responses lie with the Committee, and its decisions are usually based on advice and information provided by the Minister of Health.

In **Syria**, the UN has established a COVID-19 Crisis Coordination Committee, led by the UN Resident Coordinator and Humanitarian Coordinator with the WHO Representative for Syria serving as the Incident Manager, to closely engage with the Government and other stakeholders in the implementation of the multisectoral response (WHO and United Nations Office for the Coordination of Humanitarian Affairs [OCHA], 2020).

Due to the political divide in **Yemen**, where three substantively competing political-military entities exist—the Houthis, the Southern Transitional Council (STC), and the internationally recognized government—different mechanisms have been adopted as part of the COVID-19 response. On 16 March 2020, the internationally recognized Government formed an inter-ministerial emergency COVID-19 Response Committee in Sana'a and Aden, headed by the respective authority Deputy Prime Minister (Political Settlements Research Programmeme, 2020). This committee is responsible for strategic decisions, going beyond the health sector decisions that entail safety and security of all communities across Yemen, as well as regional coordination. On the other hand, the STC in Yemen responded to the pandemic by announcing the formation of its own Emergency Committee and a set of six measures for countering the spread of the virus. The STC leadership relies on its militia, the Security Belt Forces, to implement those measures dealing with public order and adherence to regulations. The Committee is chaired by the STC head in Aden (Political Settlements Research Programmeme, 2020). As for the Houthi-held areas, after an initial denial of the COVID-19 pandemic, the first COVID-19 case was acknowledged on 5 May 2020 (Jalal, 2020). Because of the secrecy in the Houthi-held areas, there is not enough information on how the coronavirus has spread there, how the health sector has coped, nor how authorities have responded (Abo Alasrar, 2020).

Table 2: Structure, institutional mechanisms, and processes used in developing and/or implementing the multisectoral policy or programme

COUNTRY	DATE OF FIRST RECORDED COVID-19 CASE	MULTISECTORAL INITIATIVE	ENTITY THAT LED THE RESPONSE	SECTORS/ACTORS INVOLVED IN THE RESPONSE	COORDINATION MECHANISM MANDATED BY LAW	MECHANISM TO FACILITATE INTERACTION BETWEEN SECTORS/ ACTORS	MECHANISMS FOR COMMUNICATION	MECHANISM FOR CONFLICT MANAGEMENT AND BUILDING TRUST
HIGH-INCOME COUNTRIES								
BAHRAIN	24 February 2020	The National Health Emergency Preparedness and Response plan	His Royal Highness (HRH) the Crown Prince and Prime Minister	Ministry of Health; Ministry of Works, Municipal Affairs and Urban Planning; the Bahraini Civil Aviation Affairs; Bahrain National Task Force; Bahrain Defence Force Royal Medical Services Military Hospital	Not found	▪ The National Taskforce for Combating the Coronavirus (COVID-19) chaired by the Prime Minister ▪ Activated mid-February 2020; First meeting: 25 February 2020	Regular meetings of the task force followed by a press conference and briefing	Not found
KINGDOM OF SAUDI ARABIA	2 March 2020	The pandemic control plan	Government	Representatives from 13 ministries: Health, Defence, Energy, Interior, National Guard, Foreign Affairs, Finance, Media, Commerce and Investment, Hajj and Umrah, Education and Tourism. Also present was the General Authority of Civil Aviation, the Saudi Red Crescent Authority, the Saudi Food and Drug Authority, the General Authority of Customs and the Saudi Centre for Disease Prevention and Control.	Not found	▪ COVID-19 follow-up committee chaired by the ministry of health ▪ Activated early January 2020; first meeting on 1 February 2020	Regular meetings of the COVID-19 follow-up committee in person	Not found

COUNTRY	DATE OF FIRST RECORDED COVID-19 CASE	MULTISECTORAL INITIATIVE	ENTITY THAT LED THE RESPONSE	SECTORS/ACTORS INVOLVED IN THE RESPONSE	COORDINATION MECHANISM MANDATED BY LAW	MECHANISM TO FACILITATE INTERACTION BETWEEN SECTORS/ACTORS	MECHANISMS FOR COMMUNICATION	MECHANISM FOR CONFLICT MANAGEMENT AND BUILDING TRUST
UNITED ARAB EMIRATES	29 January 2020	The UAE Government's Initiatives to Combat the COVID-19 Crisis	The Supreme Committee of Crisis and Disaster Management	Ministry of Presidential Affairs; Ministry of the Interior; Ministry of Defence; Ministry of Foreign Affairs and International Cooperation; Ministry of Health and Prevention; Ministry of Economy; Ministry of Finance; Ministry of Education; Ministry of Human Resources and Emiratization; Ministry of Community Development; Ministry of Energy and Infrastructure; Ministry of Industry and Advanced Technology; Ministry of Food and Water Security; Prime Minister's Office; General Secretariat of the Cabinet; General Secretariat of the Supreme Council for National Security; etc.	Yes	▪ The National Emergency Crisis and Disasters Management Authority (NCEMA) already in place since 2007; first meeting held 31 October 2020 ▪ The National COVID-19 Crisis Recovery Management and Governance Committee; first meeting held 4 November 2020	Regular meetings, the committee presents a weekly report on developments to the cabinet; all governmental authorities were getting guidance and support as well as reporting directly to NCEMA	Not found
MIDDLE-INCOME COUNTRIES								
JORDAN	2 March 2020	National COVID-19 Preparedness and Response Plan 2020	The Government through the National Centre for Security and Crisis Management	Ministry of Health, Ministry of Culture, Ministry of Education, Ministry of Industry, Trade and Supply, the Ministry of Social Development, Ministry of Youth, Ministry of Communication, the Government Coordinator for Human Rights, and the Prime Minister's Office	Yes	Coronavirus Crisis Cell within the existing structure of the National Center for Security and Crisis Management (NCSCM)	Regular meetings and press briefings	Not found

COUNTRY	DATE OF FIRST RECORDED COVID-19 CASE	MULTISECTORAL INITIATIVE	ENTITY THAT LED THE RESPONSE	SECTORS/ACTORS INVOLVED IN THE RESPONSE	COORDINATION MECHANISM MANDATED BY LAW	MECHANISM TO FACILITATE INTERACTION BETWEEN SECTORS/ ACTORS	MECHANISMS FOR COMMUNICATION	MECHANISM FOR CONFLICT MANAGEMENT AND BUILDING TRUST
LEBANON	21 February 2020	The COVID-19 national preparedness and response	Government	Ministry of Public Health, Ministry of Agriculture, Ministry of Foreign Affairs, Ministry of Social Affairs, Ministry of Education and Higher Education, Ministry of Public Works and Transport, Ministry of Defence, Ministry of the Interior and Municipalities, Ministry of Information, and the Disaster Risk Management Unit at the Prime Minister's Office	Yes	National Committee for COVID-19 (NCC) chaired by the Ministry of Health	Regular meetings of the committee followed by recommendations	Not found
TUNISIA	2 March 2020	Preparation and Response Plan at the risk of introduction and dissemination of "SARS-CoV-2" in Tunisia	Government	Ministry of Interior, Ministry of Finance, Ministry of Planning and Regional Development, Ministry of Agriculture, Ministry of Equipment and Housing, Ministry of Environment and Territorial Development, Ministry of Transport, Ministry of Communications, Ministry of Public Health, Ministry of justice, Ministry of Defence, Ministry of foreign affairs and the Head of the National Intelligence Centre	Yes	■ The National Coronavirus Response Authority supervised by the Prime Minister ■ Permanent Naional Committee for Disaster Prevention and Response and Relief Organization ■ The National Security Council headed by the President ■ Mechanisms activated between 21 and 25 March 2020	Daily meetings of the Local Crisis Committee members	Not found

COUNTRY	DATE OF FIRST RECORDED COVID-19 CASE	MULTISECTORAL INITIATIVE	ENTITY THAT LED THE RESPONSE	SECTORS/ACTORS INVOLVED IN THE RESPONSE	COORDINATION MECHANISM MANDATED BY LAW	MECHANISM TO FACILITATE INTERACTION BETWEEN SECTORS/ACTORS	MECHANISM FOR COMMUNICATION	MECHANISM FOR CONFLICT MANAGEMENT AND BUILDING TRUST
LOW-INCOME COUNTRIES								
SUDAN	13 March 2020	COVID-19 Country Preparedness and Response Plan (CPRP)	▪ Federal Ministry of Health with the support of WHO (led the response) ▪ Ruling cabinet of ministers and the Sovereign Council (formed High Committee for Health Emergencies)	The Committee is made of members from the ministries of health, labour and social welfare, foreign affairs, internal affairs, information, and finance, as well as the Head of the Central Bank of Sudan and representatives of the army, the police and security services, WHO, UN entities, the ruling cabinet of ministers, and the Sovereign Council.	Not found	The High Committee for Health Emergencies (to coordinate governmental and non-governmental efforts for combating COVID-19); Activated early March 2020	Ad-hoc meetings as needed	Not found
SYRIA	22 March 2020	National preparedness and response in Syria	The UN Resident Coordinator and Humanitarian Coordinator with WHO Representative for Syria	Ministry of Health, Ministry of Education, Ministry of the Interior, Ministry of Higher Education, Ministry of Local Administration and Environment, Ministry of Social Affairs and Labour; Ministry of Foreign Affairs; Idleb health Directorate; WHO, UNHCR, UNICEF, UNFPA, UNDP and UNOCHA. In addition, sectors including Water, Sanitation and Hygiene (WASH), Health, Logistics, Protection, Nutrition, Food Security, Shelter and Non-Food Items (NFIs)	Not found	▪ COVID-19 Crisis Coordination Committee ▪ Activated August 2020	▪ Weekly Health Sector coordination meetings/ operational calls ▪ Daily WHO meetings	Not found
YEMEN	10 April 2020	Yemen National COVID-19 Preparedness and Response Plan	WHO (national health cluster to coordinate humanitarian health responses) led the response; the Ministry of Public Health and Population (MOPHP) co-led the response	WHO, the MOPHP, the Ministry of Foreign Affairs, the Ministry of Education and Higher Education, the Ministry of Public Works and Transport, the Ministry of Interior and Municipalities and the Ministry of Information	Not found	▪ Inter-ministerial emergency COVID-19 Response Committee ▪ Emergency Committee in the Southern Part of Yemen ▪ Activated 16 March 2020	The Task Force meets on a weekly basis in addition to ad-hoc meetings organized as needed	Not found

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Actors

Given the scale and breadth of the COVID-19 pandemic, a whole-of-government, whole-of-society approach is needed to respond effectively. While the whole-of-government approach focuses on "the diffusion of governance vertically across levels of government and arenas of governance and horizontally throughout sectors", the whole-of-society approach extends the sphere (beyond traditional state actors) towards increased engagement of non-state actors including the private sector, civil society organizations, communities and individuals (Health, 2020).

Involvement of state actors

Actors from three critical sectors—public, private and civil society—have been involved in the response, albeit to varying degrees. In all countries, there was strong representation of ministries (at least 10) in the response. The Prime Minister's Office was also involved in many instances (Table 2). On the other hand, most governments have failed to engage in meaningful partnerships with non-state actors such as non-governmental organizations (NGOs), civil society organizations (CSOs) and the private sector; the involvement of non-state actors was more ad-hoc, fragmented and largely self-initiated, with no clear guidance nor documentation on roles and responsibilities. The involvement of intergovernmental organizations (e.g. WHO, UN entities) and CSOs was more prominent and proactive in low-income countries (e.g. Sudan, Syria, Yemen) and countries with a high number of refugees (e.g. Jordan, Lebanon).

Across the selected countries, roles and responsibilities among participants in the collaborative have not been clearly defined nor linked to the mandate for a more effective multisectoral response.

Involvement of non-state actors

In this subsection, we examine the involvement of the following non-state actors in the pandemic response: multilateral organizations and UN entities; local non-governmental actors (e.g. NGOs, CSOs) and the private sector; health professionals and public health experts; researchers and academia; and media and citizens (Table 3).

a. Multilateral organizations and United Nations entities

Since the start of the pandemic, multilateral organizations, most notably WHO and other UN entities, have played a significant role in supporting governments in their COVID-19 response. This has been especially true in countries that had been struggling with internal conflicts (**Sudan, Syria, Yemen**) and those with large refugee populations when the pandemic first hit (**Jordan** and **Lebanon**). The "UN Framework for the immediate socio-economic response to COVID-19" sought to outline the roles of various UN entities, including WHO's leadership on the health response, OCHA on the humanitarian response and UNDP on the socioeconomic response. These organizations have undertaken a wide range of efforts to adapt ongoing interventions to the outbreak, mostly targeting vulnerable populations (such as refugees and migrant workers), in collaboration with governments. In contrast, there was no clear involvement of multilateral organizations and UN entities in any of the high-income countries selected for this study (Table 3).

Low-income countries

In **Sudan**, the UN entities working in the country (UNFPA, UNHCR, UNICEF, UNOCHA and WHO), formed "the COVID-19 working group" to coordinate their response and provide support to the FMoH in implementing the country's strategy. This working group developed a COVID-19 Preparedness and Response Plan to support the Government's efforts to respond to COVID-19, in line with the Global Humanitarian Response Plan to Fight COVID-19. The plan conforms with the "operational planning guidelines to support country preparedness and response" issued by WHO HQ on 12 February 2020. In **Syria**, WHO is the lead agency working to support the Ministry of Health in enhancing health preparedness and response. On 3 March 2020, the WHO-led health cluster established a COVID-19 task force consisting of local and international NGOs. This task force has developed basic emergency planning for potential scenarios alongside technical guidelines (Ekzayez *et al.,* 2020). Furthermore, WHO, UNICEF, and WASH partners are working closely with the Ministry of Health and other relevant authorities to enhance infection prevention and control measures across public spaces, support health facilities, and integrate measures across humanitarian programmemes. Similarly, in **Yemen**, a group of multinational companies and the UN have launched the International Initiative on COVID-19 in Yemen, a partnership to assist Yemen's response to COVID-19. In addition, WHO and UNICEF are working together in Yemen to define points of convergence and integration as related to health response, risk communication and community engagement, WASH, nutrition, and mental health psychosocial support.

Middle-income countries

In **Jordan**, since the first confirmed case of COVID-19 in the country, UNHCR, UNICEF, and the World Food Programmeme (WFP) have mobilized to ensure that the essential basic needs of vulnerable households across the Kingdom are maintained. Similarly, in **Lebanon**, UNHCR has been committed to supporting collective efforts to prevent and contain transmissions of the virus and avoid overstretching the health system with a surge in cases needing hospitalization. Since the onset of the pandemic, UNHCR teams have built dedicated hospital expansion facilities, or rehabilitate and refurbished existing unused sections with new medical equipment (UNHCR, 2020). Additionally, ongoing collaborations have been established between UNDP, the Ministry of Interior and Municipalities, and the Ministry of Public Health to support municipalities in establishing isolation shelters and self-isolation protocols. These include facilitating access to services such as infection prevention and control packages and medicines, social assistance, food, mental health and psychosocial support, and addressing special needs related to age, gender and disability. In **Tunisia**, UNDP is working with the Ministry of the Interior to develop a legal framework to enable local security committees to expand their local coordination roles. UNHCR is also working closely with the UN Country Team, WHO and the Ministry of Social Affairs to promote the inclusion of refugees and asylum seekers in national preparedness and response measures, in particular in health and national cash assistance programmemes.

b. Local CSOs and the private sector

Overall, governments in the nine selected Arab countries have failed to engage in meaningful joint initiatives and partnerships with NGOs and the private sector (Table 3). The COVID-19 crisis has demonstrated the need to reorganize voluntary and civil society work in these countries, and to better train workers in NGOs and the private sector to handle crises more effectively.

Most examples of CSO involvement from these countries include self-initiated efforts to complement the state's efforts and fill key gaps in awareness-raising and community outreach, with no clear guidance nor documentation on roles and responsibilities in responding to the pandemic.

- In **Lebanon**, several NGOs played a role in collecting and distributing food and essential supplies for the most vulnerable families during the lockdown, while others addressed medical needs including the provision of psychosocial support.

- In **Tunisia**, one CSO created a web application to track aid distribution, aimed at public sector use.

- In **Jordan**, the Ministry of Health worked with NGOs and the private sector to create a website containing information and updates on the COVID-19 situation in the country, including a hotline for COVID-related inquiries.

- In **Syria**, local NGOs have engaged in various public awareness activities including distributing more than a million educational materials via leaflets and brochures, household visits in camps, and radio messaging. Similarly, CSOs have stepped up their role in steering the pandemic response in areas not controlled by the authority.

- In **Yemen**, CSOs have been filling the gaps in the government response by adapting their work to the crisis and reaching out to the most marginalized and isolated groups. Most notably, Yemen's women-led organizations have been active in responding to the needs of communities, particularly those of women and girls affected by both the conflict and the pandemic. For instance, the Yemeni Women's Union organized trainings for women and girls on how to produce face masks and hand sanitizers, which they can then distribute in their communities. They also used hotline and tele-counselling services for women and girls who are at risk of or experiencing violence, or for those seeking psychological support, legal aid, or referral (Political Settlements Research Programmeme, 2020).

- In **Sudan**, national NGOs and community-based organizations have been conducting several COVID-19 response activities focused on infection prevention and control, risk communication, and community engagement. CSOs have been involved in setting up isolation camps and providing training sessions for medical personnel in hospitals and health centres.

> **"**
> On the private-sector side, contribution has also been modest in most countries studied (with the exception of Sudan). Activity has consisted mostly of individual initiatives, instead of formal agreements with concerned authorities and clearly delineated roles and responsibilities.
> **"**

For instance, the private sector in **Jordan** launched a campaign to financially support the Government's efforts through donations, with up to 10 million Jordanian dinars collected by the second week of March 2020 (UNICEF and Jordan Strategy Forum, 2020). However, in terms of clinical interventions, the Jordanian Government excluded all private hospitals from treating COVID-19 patients at the beginning of the pandemic. Later, on 3 November 2020, the Ministry of Health struck a deal with the Private Hospitals Association to allocate at least 1,000 beds and 150 intensive care unit beds for COVID-19 patients to be referred to private hospitals by public hospitals (IMF, 2020). Similarly, in **Lebanon**, there was minimal involvement of private hospitals at the beginning of the pandemic, despite accounting for 80 percent of the beds in the country. In November 2020, the Minister of Public Health signed an agreement with the Syndicate of Private Hospitals to raise tariffs agreed upon in October for PPEs and ventilators for the treatment of COVID-19 patients, on the condition that private hospitals receive and treat COVID-19 patients; this agreement, however, was not followed by a concrete implementation plan. In **Tunisia**, civil society and the private sector have contributed to the production of medical supplies and equipment. For instance, one medical equipment manufacturer voluntarily operated double shifts to produce 50,000 face masks daily, while youth at Orange Solidarity FabLabs, a makerspace in Tunis, produced 1,500 face shields per day for hospital staff. Another company committed to manufacturing breathing ventilators and infrared thermometers (Brookings Doha Centre, 2020).

The private sector in **Sudan** has participated in several initiatives to combat the spread of COVID-19. The Businessmen's Union, telecommunications companies, and the Banking Union have pledged 200 million Sudanese pounds (nearly 2 million USD) as a first payment to support the Government's COVID-19 health plan. Additionally, packing and distribution company Moroj has collabourated with the FMoH on a sterilization campaign, distributing hand sanitizers and soap across multiple locations (IMF, 2020; OCHA, 2020).

In **Bahrain**, the National Health Regulatory Authority has started issuing licenses to private hospitals to provide medical care for asymptomatic COVID-19 patients wishing to receive treatment from a private hospital (Bahrain Ministry of Health, 2020). In addition, private hospitals have been licensed to oversee quarantine facilities, but citizens, residents and visitors in Bahrain are still entitled to free treatment at the health ministry's centres (Bahrain Ministry of Health, 2020). Two NGOs, the Bahrain Society for Women Development and the Good Imprint Association, donated 2,000 medical masks to the Southern Governorate in July 2020 (Bahrain News Agency, 2020). In **KSA**, the major telecommunications companies (STC, Mobily and ZainSA) have announced free data services to the most used educational platforms as well as to health and telehealth applications, to facilitate e-learning and health care delivery during the pandemic (Hassounah, Raheel and Alhefzi, 2020). In the **UAE**, the Dubai Chamber of Commerce and Industry, on behalf of the private sector, has announced a donation of 750,000 Arab Emirates Dinar (about 204,194 USD) to the Al-Jalila Foundation to fund research on COVID-19 in addition to cancer, cardiovascular diseases, diabetes, obesity and mental health (Emirates News Agency, 2020).

c. Health professionals and public health experts

COVID-19 has increased the need for experts in various public health disciplines to plan suitable programmemes and responses. However, the selected Arab countries have registered only modest initiatives from public health experts, whose engagement has been more ad-hoc than systematically integrated (Table 3). Indeed, in the region's most vulnerable countries such as **Syria** and **Yemen**, there has been almost no collaboration between policymakers and public health professionals (Plackett *et al.,* 2020).

AN OVERVIEW OF KEY FINDINGS BY COUNTRY

In **Bahrain**, the national coronavirus task force has approved proposals to ensure unemployed and retired nurses, doctors and paramedics are prepared to work as volunteers if required (Bahatia, 2020).

In **the UAE**, a national campaign for mental support has drawn the participation of 50 mental health experts, aiming to help UAE residents overcome the psychological impact of the spread of COVID-19 (Emirates News Agency, 2020).

In **Jordan**, teams of epidemiological surveillance experts have been providing random viral testing and surveillance throughout the country (Al-Tammemi *et al.,* 2020). Another initiative has been started by groups of retired nurses and doctors to consult, serve and dispense required medication to patients in their neighbourhoods, in collaboration with their former places of practice. Additionally, the Jordan Medical Association's initiative has provided 1,000 volunteer doctors to work in the Ministry of Health (Al Gharaibeh, 2020).

In **Tunisia**, the Government has focused on engaging local medical and scientific expertise, specifically medical officials from pre-existing public health institutions, hospitals, and universities. In terms of foreign expertise assistance, Tunisia has received support from China, which sent doctors to the capital during the start of the outbreak. However, most of the expertise has been local, including medical experts from the Ministry of Health. In early November, the Ministry of Health contacted around 300 Tunisian physicians living abroad (out of a reported 3,000) and asked them to return to Tunisia temporarily to help alleviate pressure on the stretched public health sector. We could not identify additional information on the number of physicians who actually responded to the request. During this period, the ministry also received medical help from Tunisia's powerful General Labour Union.

In **Lebanon**, despite the relatively high number of public-health researchers compared to poorer Arab states, however, the Government has failed to use these experts to their full potential in the pandemic response (Plackett, 2020). Several public health experts played an important role in issuing guidance and providing recommendations at the national level, especially at the earlier stages of the pandemic; nevertheless, when it came to implementation, political and economic considerations appeared to override scientific evidence. For example, on 21 August 2020, Lebanese authorities imposed a 17-day lockdown to stem the spread of COVID-19 after an increase in the number of confirmed cases. However, on 25 August, the head of the syndicate of restaurants, cafes and clubs announced that restaurant owners would defy lockdown orders and reopen to stave off financial losses. Following this announcement, the Minister of the Interior announced that restaurants would be allowed to reopen with limited capacity.

In **Sudan**, the Sudanese Platform for Combating Coronavirus was formed in March 2020 through an initiative by representatives from the medical field, several engineering companies, groups from the private sector, and volunteers from local communities together with community-based organizations (Kunna, 2020). The Platform operates under the guidance and protocols set by the FMoH, and has been very effective at raising funds, procuring supplies and coordinating participating private-sector entities.

In **Syria**, the majority of public health experts have left the country due to the war. This wide Syrian medical diaspora network, concentrated in countries such as the United Kingdom and France, has been providing remote consultations and support to the public as well as to their medical colleagues on the ground in Syria. By contrast, the few remaining public health experts remaining in Syria have not been included in response planning and implementation (Plackett, 2020). Instead, the diaspora networks have been used to support the local health system with the latest evidence on the virus. Several remote training sessions have been provided using a variety of online platforms (Ekzayez *et al.,* 2020) and a repository of resources, educational materials and training packages have been established for use by field health workers in remote areas of the region.

d. Researchers and academia

Governments, funders, universities, and academic communities need to collabourate on long-term plans that reflect the input of academics and researchers in national policy decisions related to the COVID-19 pandemic (Vilela, 2020). Sustainable research systems are vital, not only to overcome the current pandemic but also to prevent or prepare for future crises (Table 3). Overall, the role of researchers and academia has not been well integrated into national responses. In only three of the countries studied (KSA, UAE and Tunisia) has the government allocated funds for COVID-19 research as part of the national response. Below, we elabourate on the involvement of researchers and academia by country.

In **KSA**, Taif University reportedly earmarked 3 million Saudi Riyal (800,000 USD) for coronavirus research. It called for proposals to overcome the economic, medical and social impacts of COVID-19, with 62 submissions accepted to date. Similarly, the Islamic University in Madinah has launched a programmeme to support coronavirus-related research and studies, including legal studies related to epidemics and pandemics, studies featuring Saudi Arabia's efforts to combat the spread of the virus, and the economic impact of these illnesses (Saudi Press Agency, 2020).

In the **UAE**, most academic institutions and universities have contributed unreservedly to the national COVID-19 information campaign by disseminating recommendations and applying the necessary measures (Open Government Partnership, 2020). For instance, researchers from Khalifa University have been monitoring coronavirus levels in municipal sewage as a way to track the virus among the general population (Emirates News Agency, 2020; Michael, 2020). Similarly, in April 2020, a group of 20 researchers, scientists and engineers assembled to produce vital medical equipment to combat COVID-19.

In **Jordan**, the Society for Scientific Research, Entrepreneurship and Creativity reported hosting an international conference on 31 October to discuss the impact of the pandemic on the Jordanian economy and opportunities for growth and recovery (Bahatia, 2020; Jordan News Agency, 2020).

In **Tunisia**, around 100 scientific research initiatives brought together about 1,000 researchers to provide solutions to counter the pandemic (Sliti, 2020).

In **Lebanon**, the National Council for Scientific Research (chaired by the Prime Minister) launched the 'Flash Call COVID-19 Management', which funded 29 projects addressing different dimensions of the COVID-19 response prioritized by policymakers and stakeholders (CNRS, 2020). Additionally, the largest private universities independently stepped up to support the government pandemic response. For example, the American University of Beirut helped by raising awareness, conducting research, serving the community, and informing public policy. Saint Joseph University and the Lebanese American University both worked to raise awareness and conduct research.

In **Sudan**, the Sudanese Researcher Groups established a Sudan COVID-19 Dashboard to act as a central source of information and to coordinate official and volunteer activities (OCHA, 2020). The dashboard is updated whenever a new event occurs. In addition, the University of Sudan Engineers Group has created mobile handwashing stations, which have been distributed in high-risk areas (OCHA, 2020).

Only in three countries has the government allocated funds for research on COVID-19 as part of the national response. In **KSA**, King Abdulaziz City for Science and Technology, in collaboration with the Ministry of Health, the Saudi Health Council, and the Saudi Centre for Disease Prevention and Control, has initiated an expedited research funding programmeme to support research and development on COVID-19. So far, 50 proposals have been accepted for funding, with each grant providing a minimum of 500,000 SR (about 133,000 USD) (KACST, 2020; Meo, 2020).

In the **UAE**, the Vice President, Prime Minister and Ruler of Dubai have inaugurated the Mohammed bin Rashid Medical Research Institute, UAE's first independent biomedical research centre dedicated to addressing COVID-19 and other viral diseases (Emirates News Agency, 2020; Michael, 2020). Under this Institute, Al-Jalila Foundation awarded AED 2.5 million (680,000 USD) in seed grants to five UAE-based medical researchers focused on COVID-19 in the areas of genetics, therapies and diagnosis as at November 2020 (Al-Jalila Foundation, 2020).

In **Tunisia**, the Ministry of Higher Education and Scientific Research has allocated 2.5 million dinars (about 860,000 USD) to study the use of "chloroquine" in treating the coronavirus (Jrad, 2020). The Ministry has also launched a website where researchers can submit proposals based on national need (Sliti, 2020).

e. Involvement of citizens

Citizen engagement has been indispensable to the pandemic response, whether through organized volunteering opportunities or through abiding by social distancing measures. Some countries have launched platforms where individual citizens can participate through various volunteering opportunities (Bahrain, UAE, Syria) while in others, citizen-led community responses have been self-initiated without being prompted or encouraged by authorities (Jordan, Lebanon, Sudan, Yemen) (Table 3).

Below is an overview of countries with government-led platforms for citizen participation:

In **Bahrain**, the national coronavirus task force launched an appeal for volunteers to provide medical and administrative support during the crisis on 16 March 2020.

In the **UAE**, the federal Government has launched several charitable initiatives, marshalling public support to address the health and economic challenges brought about by COVID-19 (Federal Competitiveness and Statistics Authority, 2020). Most of the volunteering opportunities launched involve financial and in-kind contributions (including medical and educational aid and food supplies) from individuals and companies.

The Idleb Health Directorate in **Syria**, alongside local actors including the White Helmets or Syria Civil Defence, called for a mass voluntary campaign inviting local groups to take part in the response. The campaign, 'Volunteers against Corona', has mobilized thousands of volunteers covering most localities in the Northwest Syrian region. The campaign organizes volunteers into technical teams and neighbourhood committees covering tasks related to raising awareness, disinfection campaigns and community-based referrals. It uses social media for updates, day-to-day communication and team management (Ekzayez *et al.,* 2020).

In **Jordan**, several individual and community initiatives have been launched to help mitigate the effects of the crisis. For example, religious leaders, educators, public figures, and opinion leaders have been heavily involved in educating people about the importance of social distancing and IPC measures (Alqutob *et al.,* 2020). In both **Jordan** and **Lebanon**, school lessons were broadcast on national television channels in collaboration with the Ministry of Education to support students who did not have laptops or reliable Internet connections, especially in remote areas.

Furthermore, some media platforms in **Lebanon** facilitated fundraising campaigns to offset the cost of COVID-19 testing and treatment. Additionally, a group of concerned citizens with various health-related expertise have formed the Independent Lebanese Committee for the Elimination of COVID-19 to sound the alarm and offer paths out of the current crisis (Abi-Rached *et al.,* 2020).

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> **Throughout the current conflict in Yemen, women have displayed a profound capacity to both lead communities and support their function by acting as first responders and caregivers (Political Settlements Research Programmeme, 2020).**
> "

In addition, Yemeni actors and musicians, as well as popular media in general, have been instrumental in raising awareness about COVID-19. In **Sudan**, the shortage of health care workers at the national level has led to the emergence of dozens of citizen initiatives to support health workers (Gallopin, 2020).

f. Involvement of media

The COVID-19 pandemic has highlighted the importance of having a variety of modes of communication between the government and citizens in times of crisis, to reach the highest number of people possible. Different tools have helped people stay up to date with pandemic news and guidelines. In **Tunisia**, following criticism of some media coverage, especially programmemes featuring guests who were not always professionally qualified to speak on the subject, the country's High Independent Authority for Audiovisual Communication (HAICA) decided to take action. On 18 March 2020, HAICA requested that the country's National Medical Council provide a list of specialists in epidemiology (Hizaoui, 2020). The Tunisian journalists' union also issued editorial guidelines for covering the crisis (Sayadi, 2020). The Tunisian Ministry of Health (in collaboration with a crisis communication team comprised of the Director of Hygiene and Basic Health and the Director-General of the National Observatory of New and Emerging Diseases) communicated with the public daily via regular press conferences starting on 24 March (Brookings Doha Centre, 2020). These conferences were broadcast through national television and radio channels, on a dedicated website, and on social media via two Facebook pages (one created specifically to update the public regarding the pandemic and the official health ministry's page).

In **Jordan**, prior to the activation of the Defence Law, different media channels were used to alert citizens of the seriousness of the virus and its rapid spread. Social media was used heavily in spreading news about the danger of the disease and groups at high risk.
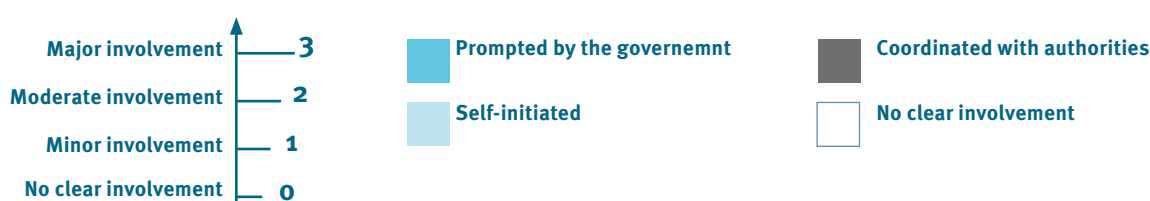
In **Lebanon**, a national strategic communication campaign was launched four days after detecting the first COVID-19 case (Ministry of Public Health, 2020). The main strategy centred on flooding media outlets with information by health care professionals: talk shows hosted physicians and public health experts, in addition to governmental directives around "stay home" orders and prevention.

In **Sudan**, COVID-19 information and updates have been released daily and disseminated through the media and information centre at the FMoH, where the Minister of Health and sometimes the Minister of Media and Information make appeals and important announcements (Kunna, 2020)

Table 3: Involvement of non-state actors and their roles in the COVID-19 response

COUNTRIES	MULTILATERAL ORGANIZATIONS AND UN ENTITIES' INVOLVEMENT	LOCAL	PRIVATE SECTOR'S INVOLVEMENT	PUBLIC HEALTH EXPERTS' INVOLVEMENT	MEDIA'S INVOLVEMENT	CITIZENS' INVOLVEMENT	ACADEMIA AND RESEARCHERS' INVOLVEMENT
BAHRAIN	0	1	1	1	1	1	0
JORDAN	3	1	2	3	3	1	1
KSA	0	0	1	0	1	0	2
LEBANON	3	2	1	2	2	1	2
SUDAN	3	2	3	1	2	1	2
SYRIA	3	2	0	2	1	1	0
TUNISIA	3	2	1	1	2	1	2
UAE	0	0	1	2	1	1	1
YEMEN	3	3	1	0	0	3	0

This metric captures the degree of involvement of non-state actors in the national COVID-19 response.

Major involvement — 3
Moderate involvement — 2
Minor involvement — 1
No clear involvement — 0

Prompted by the governemnt
Self-initiated
Coordinated with authorities
No clear involvement

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Administration, funding and evaluation

Every collaborative needs effective administrative practices, adequate financial resources, and a plan for regular monitoring and evaluation (Mahlangu, 2019). Below, we elaborate on each of these elements with respect to the multisectoral response in the selected countries.

Administration of the multisectoral response

Effective multisector collaboration requires the key governance principles of participation, responsiveness and accountability (Mahlangu *et al.,* 2019).

In the majority of selected countries, the organization of the COVID-19 response was highly centralized, owing largely to a centralization of health services, particularly in high-income countries. While a centralized approach is logical in addressing a crisis of such scale, local-level action is equally important to contextualize and operationalize policy interventions. In **Tunisia**, poor coherence between centralized and decentralized levels was reported to have created tension among stakeholders, which hindered implementation of the pandemic response (Derbali, 2020).

In most cases, governments in the selected countries failed to properly mobilize policy implementers and frontline actors, offering no clear guidance on roles and responsibilities. Moreover, in low-income countries and those with large refugee populations, where intergovernmental organizations (WHO, UN entities) and CSOs played a more prominent role, the failure to streamline and harmonize operations with national response plans resulted in fragmentation and duplication of efforts, weakening the overall response.

Poor governance coherence has been attributed to factors including a lack of legitimacy of authority and trust in leadership, and the absence of clear mechanisms to translate high-level policies and regulations into practical measures that can be implemented, enforced and monitored at the local level.

Financial resources

The amount and source of funding dedicated to the national response differed across the nine selected countries. Not surprisingly, governments in high-income countries (Bahrain, KSA and UAE) invested the largest amounts. Next were upper-middle income countries (Jordan, Lebanon and Tunisia) where, in addition to government's dedicated funds and foreign support, several platforms were established to raise funds from public donations to support the response. In contrast, low-income countries (Sudan, Syria and Yemen) were reported to have insufficient financial resources for developing policies and engaging multiple sectors in implementation activities; as a result, those countries tended to over-rely on external funders and donors (Table 4). With the exceptions of the UAE and Jordan, no country offered clear information on the cost-sharing mechanisms between sectors for specific components of the plan.

Across the nine selected countries, it was not clear to what extent budgeting for activities of the collaborative was a multisectoral activity, undertaken by all sectors (and stakeholders) involved. And while the budget covered the policy interventions under the response plan, there was no explicit reference to the expenses incurred to run the coordination mechanisms at national and subnational levels.

A more detailed overview of findings by country is provided below, according to income group.

High-income countries

In **Bahrain**, a stimulus package of 560 million BD (1.5 billion USD), representing 4.2 percent of GDP, was announced on 17 March 2020. In addition, the Cabinet authorized the Minister of Finance and National Economy to withdraw from the general account 177 million BD (470 million USD or 1.3 percent of GDP), which was subsequently added to the 2020 budget on 13 July 2020 (IMF, 2020). On 8 April 2020, a further 5.5 million BD (14.6 million USD) was announced to enhance social benefits for lower-income families.

In **KSA**, more than 120 billion SR (32 billion USD) was provided by the government to address harm from COVID-19 and to fight the virus (Alshammari *et al.,* 2020; Saudi Press Agency, 2020). The government has also made budgetary reallocations of 47 billion SR (12.5 billion USD) to increase the resources available to the Ministry of Health to fight the virus (IMF, 2020; KPMG, 2020).

The **UAE** Government allocated a flexible stimulus budget amounting to 26.5 billion AED (7.2 billion USD, or 2 percent of GDP). The budget was directed towards different initiatives, mainly containment and treatment of COVID-19 cases, strengthening economic growth and the business sector, and supporting remote education (Federal Competitiveness and Statistics Authority, 2020). The NCEMA is the entity responsible for identifying the financial and economic resources required for supporting the recovery phase.

Middle-income countries

In order to finance **Jordan**'s response to COVID-19, the Government relied on resources from the Treasury in addition to existing budgets of various government bodies such the Ministry of Health, the Ministry of Education, and the Social Security Cooperation (KPMG, 2020; IMF, 2020; OECD, 2020; UNICEF and Jordan Strategy Forum, 2020). The Government allocated 50 million JD (about 71 million USD) for health equipment and supplies, rental of hotels for quarantines, and additional COVID-related security costs. It also instituted a temporary cash transfer programmeme for the unemployed and self-employed (81 million JD, about 114 million USD). Furthermore, on 31 March, the Jordanian Prime Minister established a coronavirus relief fund under the name "Himmat Watan" (a nation's effort), to receive local and foreign donations to support COVID-19 eradication (KPMG, 2020; IMF, 2020; OECD, 2020; UNICEF and Jordan Strategy Forum, 2020). On 20 May 2020, the Executive Board of the International Monetary Fund approved Jordan's request for emergency financial assistance under the Rapid Financing Instrument equivalent to 291.55 million JD (about 400 million USD).

The **Lebanese** Parliament approved an additional allocation from budget 2020 worth 1,200 billion LBP (800 Million USD) for social safety nets through a specific criterion for aid distribution set by a decree (Al-Houssari, 2020). The Government also established a national solidarity fund that would accept in-kind and monetary donations. The Ministry of Finance extended deadlines for payment of taxes and fees and approved the disbursement of 450 billion LBP (293 million USD) of dues to private hospitals (Makhlouf, 2020).

In **Tunisia**, a 2.5 billion TND emergency plan (0.71 billion USD, or 1.8 percent of GDP) was announced on 21 March 2020. The plan also expanded the budget allocation for health expenses and the creation of a 100 million TND fund for public hospitals to purchase equipment (Kokas *et al.,* 2020). On the social side, the package included cash transfers for low-income households and for disabled and homeless people (450 million TND for three months), as well as support for those temporarily unemployed because of the COVID-19 shock (300 million TND).

Low-income countries

In **Sudan**, although considerable funding (around 47 million USD) was requested by the UN from donors to respond to the COVID-19 pandemic, receiving the proposed funding from donors has proven difficult, as Sudan is not considered a hotspot for COVID-19 compared to other countries (IMF, 2020; KPMG, 2020). The current lack of funding at the FMoH has reportedly jeopardized the implementation of the national strategy. In addition, the

international community pledged support of 1.8 billion USD for the authorities' broader macroeconomic reform agenda during a Partnership Conference held in Berlin, Germany on 25 June 2020 (Kurtz, 2020). While most of the funds will go to humanitarian assistance and related projects, a sizable portion will support a 12-month Sudan Family Support programmeme to provide direct cash transfer to 80 percent of the population. The disbursement of these funds has not taken place yet, as donors are waiting for exchange rate reforms to be implemented (WFP, 2020).

In **Yemen**, the Government has allocated limited budget resources to respond to the COVID-19 crisis. WHO and other UN entities have appealed for more COVID-19 funding, including medical support and equipment estimated to cost 179 million USD (United Nations Human Rights, 2020). Furthermore, the World Bank's Board of Executive Directors in mid-December 2020 approved 303.9 USD million in grants for Yemen to help increase access to basic services and economic opportunities for populations affected by ongoing conflict and the pandemic. The grants, from the International Development Association, the World Bank's fund for the poorest countries, will support two projects – one focused on emergency social protection and COVID-19 response, and the other focused on education and learning.

On 2 June 2020, international donors pledged 1.35 billion USD in aid for Yemen. Saudi Arabia's contribution totals 500 million USD, with the United Kingdom offering 200 million USD and Germany contributing 140 million USD (El Yaakoubi and Eltahir, 2020).

Table 4: Overview of funding, monitoring and evaluation and accountability mechanisms in selected countries

COUNTRY	SOURCES OF FUNDING FOR IMPLEMENTATION OF THE RESPONSE	FINANCING MECHANISMS/ ARRANGEMENT IN PLACE	MECHANISM FOR MONITORING AND EVALUATION (RESPONSIBLE ENTITY)	INDICATORS TO MEASURE IMPACT AS PART OF THE NATIONAL RESPONSE PLAN	ACCOUNTABILITY FRAMEWORK
BAHRAIN	Government	Not found	Yes (Bahrain National Task force)	Not found	Not found
JORDAN	▪ Government; ▪ Local and foreign donations	Yes	Not found	Not found	Not found
KSA	Government	Not found	Not found	Not found	Not found
LEBANON	▪ Government; ▪ Local and foreign donations	Not found	Yes (Ministry of Public health)	Yes	Not found
SUDAN	▪ External Donors; ▪ Private sector; ▪ Government	Not found	No formal process (UN Country Team and WHO)	Not found	Not found
SYRIA	▪ External donors; ▪ Government	Not found	No formal process (UN Country Team and WHO)	Yes	Not found
TUNISIA	▪ Government; ▪ Local and foreign donations	Not found	Yes (National COVID-19 Monitoring Authority)	Yes	Not found
UAE	Government	Yes	Yes (National Emergency Crisis and Disaster Management Authority (NCEMA))	Yes	Not found
YEMEN	▪ External donors; ▪ Government	Not found	No formal process (various multilateral organizations and existing Emergency Operations Centres (EOC))	Yes	Not found

Monitoring and evaluation

Collaborative progress needs to be monitored through an accountability framework consisting of indicators related to both process and outcomes, pegged to the objectives of the joint action plan. With the exceptions of **Syria** and **Yemen**, most countries had mechanisms in place and designated entities for reporting on progress; however, only a few countries incorporated explicit indicators for monitoring and evaluation into their national response plans (Table 4). Furthermore, none of the countries included indicators to monitor the process of the collaborative itself. Information on the mechanism and designated entity for monitoring and evaluation were not identified for **Jordan** and **KSA**. In all cases, it was unclear to what extent monitoring and evaluation were formally being conducted on the ground.

While accountability is an essential governance element in collaboratives, critical for building trust and enhancing effectiveness, none of the countries incorporated an explicit accountability framework or integrated anti-corruption and counter-fraud measures into their multisectoral plans or coordination mechanisms. A recent report conducted in the region highlighted corruption risks in public procurement and privately donated funds, and urged governments to adopt transparency and accountability measures to provide much needed anti-corruption oversight (Transparency International, 2020).

A more detailed overview of findings by country is presented below, according to income group:

High-income countries

In **Bahrain**, a national task force was set up to monitor the progress, containment and treatment of COVID-19. With the reopening of certain sectors, the task force is paying particular attention to the percentage of positive cases, total active cases, hospital occupancy rate, and number of cases requiring medical care (Bahrain Ministry of Health, 2020; Louri *et al.,* 2020). In the **UAE**, the NCEMA has developed a distinctive monitoring and inspection methodology to ensure the proper implementation of all precautionary measures through seven inspection teams created in each emirate. The NCEMA will also assess the impact of the implemented measures and their efficiency in responding to economic challenges caused by COVID-19 (Emirates News Agency, 2020). The NCEMA is also responsible for receiving feedback from the public to be integrated into the UAE Government briefing. A strategic plan is being developed, including key performance indicators for the post-COVID-19 phase in targeted sectors to gauge a return to normalcy (The Supreme Council for National Security, 2020).

Middle-income countries

In **Lebanon**, the Ministry of Public Health is using key performance and impact indicators to monitor and evaluate the implementation of planned activities, as well as to assess overall programmeme performance and derive lessons. A progress report to be generated and shared regularly with the national committee will include an assessment of operational readiness and recommendations for addressing challenges (Ministry of Public Health, 2020). Similarly, the **Tunisian** Government created a National COVID-19 Monitoring Authority, including representatives and senior officials from all ministries. Its aim is to achieve "full compliance with measures to fight the virus" across sectors, and to coordinate regional and national committee action (OECD, 2020). The Authority was also in charge of monitoring the supply of basic products, the distribution of social assistance, and of recommendations to the national committee to combat COVID-19.

Low-income countries

In two of the selected low-income countries (**Syria** and **Yemen**), there were no formal processes or designated entities to effectively monitor and evaluate the collaborative:

In **Syria**, since the start of the pandemic, WHO has been holding daily meetings and weekly health sector coordination meetings and operational calls to monitor the implementation of the COVID-19 Preparedness and Response Plan. Weekly operational calls on Northeast Syria are also ongoing, including on enhancing preparedness and response efforts at points of entry and contingency planning for camps (OCHA and WHO, 2020). The first Preparedness and Response to COVID-19 Monitoring Report was issued by the UNOCHA on 14 July 2020. The report summarized

progress and gaps against agreed targets for COVID-19 preparedness and response efforts by humanitarian partners in Syria, as consolidated across all operational hubs. In **Yemen**, no processes exist to effectively monitor and evaluate the impact of the measures implemented by national entities; however, this role has been undertaken mainly by various multilateral organizations working in the country. For instance, IOM teams continue to monitor countrywide COVID-19 movement restrictions; in addition, each existing Emergency Operations Centre (EOC) is required to regularly track a number of variables to assess whether the system is effective. The EOCs are also responsible for updating the list of variables already being monitored and including the additional indicators, namely: number of rumours and alerts checked, number of persons scanned at relevant points of entry, number of tests performed, and number of ICU beds occupied. Furthermore, at central and at governorate levels, WHO has announced that it will support the MOPHP in collecting data related to key variables and performance indicators, and will also assist in providing and disseminating a number of products that could include briefings, electronic dashboards, situation reports, infographics, and reports to donors.

In **Sudan**, monitoring and reporting of the COVID-19 Country Preparedness and Response Plan is led by the COVID-19 Working Group with the support of the Information Management Working Group. Working together with partners, the COVID-19 Working Group has developed a system to collect and share data on the implementation of the activities in the plan. Data and information gathered as part of the monitoring process will be made available via the Humanitarian Response website to decision makers at all levels (global, country-level strategic and operational). The data will also be shared in the Humanitarian Data Exchange to promote transparency and allow partners to conduct independent analysis (HCT and UNCT, 2020).

Degree of multisectoral engagement

Multisectoral engagement lies on a normative spectrum, from more passive to active involvement. It can range from communication, where information from one sector is shared with other sectors; to cooperation, which involves optimizing resources while establishing formalities in the work relationship; to coordination, where there is increased horizontal networking among sectors with some sharing of financing sources; to integration, which entails systematic integration of objectives and administrative processes and the sharing of resources, responsibilities and actions (WHO, 2020a).

Across the selected Arab countries, the degree of engagement among sectors and actors spanned the spectrum from communication to cooperation and coordination; it rarely went further into integration, which necessitates formal partnerships and shared policies and practices around a common goal. While low-income countries had engagement of sectors outside the health sector, this engagement seemed mostly limited to providing information or viewpoints and was not a truly collaborative effort. Across middle-income countries, the engagement could be classified as largely coordination, involving formal meetings and regular exchange of staff, information and practices. In high-income countries, the engagement went further to coordination, with regular formalized sharing and exchange and the undertaking of shared projects. Table 5 provides a visual representation of the degree of multisectoral engagement across the selected countries.

Table 5: Degree of multisectoral engagement across selected countries

	COEXISTENCE	COMMUNICATION	COOPERATION	COORDINATION	INTEGRATION
BAHRAIN				■	
JORDAN			■		
KSA				■	
LEBANON			■		
SUDAN		■			
SYRIA		■			
TUNISIA			■		
UAE				■	
YEMEN		■			

5

Impact

Strong multisectoral collaboration has been shown to yield more effective pandemic response (Bangura *et al.,* 2020; Chen *et al.,* 2020; Forman *et al.,* 2020). In this section, we examine impact at the following levels:

■ **Comprehensiveness of COVID-19 policy measures or interventions**

■ **Selected COVID-19-related outcomes**

■ **Overall pandemic response**

Recognizing that good COVID-19 response outcomes may not always be directly attributable to good multisectoral arrangements, this section attempts to highlight how the positive qualities of multisectoral governance can contribute, when combined, to improve the likelihood of positive outcomes in times of crisis.

Across the countries selected, those with a stronger degree of multisectoral engagement (see Table 5) seem to adopt a more comprehensive set of COVID-19 measures or interventions and achieve better COVID-19 related outcomes. However, it is important to caution that this study does not claim any cause—effect relationship. As indicated, other factors may also have accounted for the observed variations: demographics; disparities in health system capacities; and cultural factors ranging from high levels of socialization to distrust in public institutions, which might influence compliance with public health measures (Al-Saidi *et al.,* 2020).

Comprehensiveness of policy measures

Governments in the Arab region have responded differently to the pandemic, with variations in reaction speed and strictness of implementation. Collectively, country responses have ranged from public health measures such as lockdowns, social distancing and contact tracing through to social interventions and broader fiscal policies to restore the economy. These responses continue to change over time as countries in the region experience second waves of outbreaks or recover from major bouts of infection. Even within countries, responses may diverge among jurisdictions and across rural-urban areas. However, all selected countries have endeavoured to balance public health interventions to control COVID-19 against measures to minimize the social and economic impact of the pandemic.

Across income groups, policy measures were most comprehensive in high-income countries, followed by middle-income countries, with the least number of measures adopted in low-income countries. While all selected countries implemented a wide range of public health measures, variations across income groups were more pronounced in terms of the comprehensiveness of adopted social and economic measures, with a notable absence of economic measures in the low-income countries compared to middle- and high-income countries.

In the early phase of the pandemic, most countries in the Arab region implemented a range of public health measures to limit viral transmission. These included domestic and international flight restrictions; closure of borders, schools and non-essential businesses; suspension of mass gatherings; implementation of curfews and/or partial-to-full lockdowns; and mandating use of masks in public. By mid-March 2020, all nine countries in this study had applied several public health measures, the early implementation of which contributed to reduced virus transmission. However, those measures also exacted significant societal and economic costs. Mirroring the global dilemma, countries with mounting national debts and unprecedented economic recession continued to struggle with whether public health or economic recovery should take precedence. Ultimately, most countries lifted public health measures to alleviate the pandemic's social and economic burden. Socioeconomic pressure and community fatigue thus influenced public health decisions related to COVID-19, particularly in relation to the relaxation of public health measures and implementation of several economic and social measures.

With regards to social measures, all selected countries adopted policies to reduce their prison populations. All except Yemen provided financial support and cash assistance for vulnerable populations and individuals affected by COVID-19. Even though all nine countries implemented a range of gender-sensitive measures to protect women and girls during the pandemic (such as prioritizing women in social assistance, addressing violence against women, waiving women's debts, etc.), the number of adopted gender-sensitive measures varied across countries. For instance, Jordan implemented 25 gender-sensitive measures, while Yemen implemented only two (UNDP and UN Women, 2020).

The fiscal response to limit the economic impact of the pandemic was most pronounced in high-income countries. It encompassed a range of measures including supporting businesses through tax exemptions, wage subsidies, deferment of debt obligations, support to small and medium-sized enterprises, creating unemployment funds, and fiscal stimulus packages. Fiscal measures were less comprehensive in middle-income countries and almost absent in low-income countries. Unlike high-income countries, all low- and middle-income countries relied on international financial support or loan agreements with the World Bank to cushion the impact of continued containment and mitigation policies, and support economic recovery.

Table 6 provides a summary of the key national-level policy measures adopted by the selected countries (as at 31 December 2020). It also highlights the date, duration and status of implementation. An overview of the detailed policy measures adopted by each country is also provided in Appendix A.

Table 6: An overview of national-level policy measures to combat COVID-19 in nine selected Arab countries (as at 31 December 2020)

- ☑ Ongoing implementation until end of December 2020
- ☑ Implemented and stopped multiple times
- ☑ Date of implementation unclear
- ☑ Planned
- ☑ Implemented once then stopped
- ☒ Not implemented

POLICY MEASURES		HIGH-INCOME COUNTRIES			MIDDLE-INCOME COUNTRIES			LOW-INCOME COUNTRIES		
		BAHRAIN	KSA	UAE	JORDAN	LEBANON	TUNISIA	SUDAN	SYRIA	YEMEN
PUBLIC HEALTH MEASURES	Closure of schools/ universities (all levels)	☑ Feb-Sep	☑ March-Dec	☑ March-July	☑ Mar-Sep-Oct-Dec	☑ Feb-May-Nov-Dec	☑ Mar-Sep-Oct-Nov	☑ Mar-Oct-Dec	☑ March-Aug	☑ Mar-Sep
	Workplace closure/ work from home policy for all except key workers	☒ Required for some only	☒ Required for some only	☒ Required for some only	☑ March-Apr	☑ March-April	☑ March-May	☑ March-July	☒ Required for some only	☒ Required for some only
	Cancellation of public events/ Restrictions on gatherings (<10 people) / Social distancing measures	☑ March-Aug/ Dec	☑ April-June	☑ March-July/ Sep-Dec	☑ March-June	☑ March-July	☑ March-June, Oct-Dec	☒ Gatherings limited to 10-100 people	☒ Gatherings limited to 10-100 people	☒ No restrictions
	Suspension of sports events, gyms, outdoor sports fields, sports halls, and swimming pools	☑ Feb -Aug	☑ March-June	☑ March-May	☑ March-June-Aug-Sep	☑ Nov-Dec	☑ March-June-Oct-Nov	☑ March-Sep	☑ March-Oct	☑ March-Dec

POLICY MEASURES	HIGH-INCOME COUNTRIES			MIDDLE-INCOME COUNTRIES			LOW-INCOME COUNTRIES		
	BAHRAIN	KSA	UAE	JORDAN	LEBANON	TUNISIA	SUDAN	SYRIA	YEMEN
Total suspension of public transport	✗	✓ March-June	✓ March-April	✓ March-April	✓ March-April-Nov-Dec	✓ March-May	✓ March-July-Aug-SEP	✓ March-May	✗
Restrictions of recreational activities (restaurants, malls, cinemas, etc.)	✓ April-May-Sep	✓ March-April-Oct-NOv	✓ March-April	✓ March-April-Sep-Oct	✓ March-May-Aug-Sep	✓ March-June-Oct-Dec	✓ April-July	✓ March-Oct	✗
Restrictions on internal movement/ Curfews / Stay at home requirements (except for essentials)	✗	✓ March-April-June	✓ March-April	✓ March-April-May-June-Oct-Dec	✓ March-May-Aug-Sep	✓ March-June-Nov-Dec	✓ April-Sep	✓ March-Dec	✓ May-July-Sep-Oct
Suspending religious gatherings, collective worship, and prayers in mosques and churches	✓ March-Aug-Dec	✓ Feb-May	✓ March-June	✓ March-June-Sep-Oct	✓ March-May-Oct-Dec	✓ March-June-Oct-Dec	✓ April-August	✓ March-May	✓ April-Dec
Total restrictions on air travel and borders crossing, suspension of all domestic and international travel	✗ Ban on high-risk regions only	✓ March-May-July-Sep-Dec	✓ March-May-July-Sep-Dec	✓ March-May	✓ March-June	✓ March-Sep	✓ March-July	✓ March-Aug	✓ March-Oct-Dec
Coordinated public information campaigns	✓ Feb-Dec	✓ Feb-Dec	✓ March-Dec	✓ March-Dec	✓ March-Dec	✓ March-Dec	✓ March-Sep	✓ March-Sep	✗
National testing policy / Open public testing (including asymptomatic)	✓ April-Dec	✓ May-Dec	✓ April-Dec	✗	✗	✗	✗	✗	✗
Comprehensive contact tracing (all cases)/ Tracking / Quarantine	✓ Feb-Dec	✓ Feb-Dec	✓ Feb-Dec	✓ Aug-Dec	✗	✓ May-Sep-Nov-Dec	✗	✗	✗

POLICY MEASURES	HIGH-INCOME COUNTRIES			MIDDLE-INCOME COUNTRIES			LOW-INCOME COUNTRIES		
	BAHRAIN	KSA	UAE	JORDAN	LEBANON	TUNISIA	SUDAN	SYRIA	YEMEN
Facial covering policy (Mask required in all public areas)	✔ April-Dec	✔ June-Dec	✔ April-Dec	✔ April-Dec	✔ May-Dec	✔ August-Dec	✘	✔ Dec	✘
Sterilization campaign/ Disinfection Programmeme of public spaces	✔ April-Sep	✔ March-Dec	✔ March-June	✔ March-June	✔ No date info	✘	✔ April-July	✔ March	✔ May-June
Imposing penalties for non-compliance (fines, prison sentencing)	✔ April-Dec	✔ April-Dec	✔ March-Dec	✔ June-Dec	✔ July-Dec	✔ August-Dec	✘	✔ Dec	✘
Supporting COVID-19 research	✘	✔ March-Dec	✔ June-Dec	✘	✘	✔ May-Dec	✘	✘	✘
Supporting COVID-19 vaccine research, and engaging in clinical trials	✔ Aug-Dec	✔ Aug-Dec	✔ June-Dec	✔ Aug-Dec	✘	✘	✘	✘	✘
COVID-19 vaccination policy and plan	✔ Nov-Dec	✔ Dec	✔ Sep-Dec	✔ Dec	✘	✔ Dec	✘	✘	✘
COVID-19 vaccination registration and rollout campaign	✔ Dec	✔ Dec	✔ Nov-Dec	Jan 2021	Mid Feb 2021	Second quarter of 2021	First quarter of 2021	✘ No specific date	✘ No specific date
Scaling up health care and isolation facilities and testing centres	✔ March-Dec	✔ March-Dec	✔ April-Dec	✔ Oct-Dec	✔ March-Dec	✔ April-Dec	✔ March-Dec	✔ Oct-Dec	✔ March-Dec
Emergency investment in health care	✔ July-Dec	✔ Feb-Dec	✔ March-Dec	✔ March-Dec	✔ March-Dec	✔ March-June	✔ No date info	✔ No date info	✔ No date info
National campaign for mental support	✘	✔ No date info	✔ April-Sep	✔ No date info	✔ June	✔ Aug	✘	✘	✔ No date info

Legend:

- ✓ Ongoing implementation until end of December 2020
- ✓ Implemented and stopped multiple times
- ✓ Date of implementation unclear
- ✓ Planned
- ✓ Implemented once then stopped
- ✗ Not implemented

POLICY MEASURES		HIGH-INCOME COUNTRIES			MIDDLE-INCOME COUNTRIES			LOW-INCOME COUNTRIES		
		BAHRAIN	KSA	UAE	JORDAN	LEBANON	TUNISIA	SUDAN	SYRIA	YEMEN
SOCIAL MEASURES	In-kind support (food and hygiene packages) to vulnerable population (refugees, prisoners and low-income families)	✓ No date info	✗	✓ April-June	✓ No date info	✓ No date info	✓ March-June	✓ July-Dec	✓ No date info	✗
	Financial support/cash assistance for vulnerable population and individuals affected by COVID-19	✓ April-May	✓ Oct-Dec	✓ April	✓ April-July-Dec	✓ April	✓ April-Dec	✓ May-Dec	✓ June	✗
	Strengthening and/or broadening unemployment benefits	✓	✓	✓	✓	✗	✓ No date info	✓ No date info	✗	✗
	Gender-responsive measures (prioritizing women in social assistance, addressing violence against women, waiving women's debts, etc.)	✓ May-Dec	✓ April-Dec	✓ August	✓ No date info	✓ April-Dec	✓ March-Dec	✓ No date info	✓ No date info	✓ No date info
	Reducing the prison population/ Releasing prisoners, detainees and debtors	✓ March	✓ March	✓ April	✓ March	✓ April	✓ March	✓ March	✓ March-May-Nov	✓ April
ECONOMIC MEASURES	Exemption or postponement of rent payments or property and land taxes	✓ April-Sep	✓ July-Oct	✓ April-June	✓ April	✗	✗	✗	✗	✗
	Subsidization of water and electricity bills	✓ April-Dec	✓ April-May	✓ March-May	✗	✗	✗	✗	✗	✗
	Compensation of employee salaries/wage subsidizations to reduce lay off in private sector	✓ April-Dec	✓ March-Dec	✓ No date info	✓ Dec	✗	✓ No date info	✗	✗	✗

POLICY MEASURES		HIGH-INCOME COUNTRIES			MIDDLE-INCOME COUNTRIES			LOW-INCOME COUNTRIES		
		BAHRAIN	KSA	UAE	JORDAN	LEBANON	TUNISIA	SUDAN	SYRIA	YEMEN
	Exemption or deferment of tax declarations and loan payments	✔ April	✔ July-Dec	✔ March-Dec	✔ June	✔ No date info	✔ April-June	✘	✔ Oct-Dec	✘
	Suspension or reduction of various government fees and penalties	✔ April-June	✔ July-Dec	✔ March-Sep	✔ June	✔ April-Dec	✔ April-June	✘	✘	✘
	Provision of subsidized loans to small and medium-sized enterprises, businesses in hard-hit sectors	✔ No date info	✔ March-June	✔ No date info	✔ No date info	✔ No date info	✔ No date info	✘	✘	✘
	Cutting of policy interest rate	✔ March-Dec	✔ No date info	✔ March-Dec	✔ No date info	✔ March-May	✔ No date info	✘	✘	✘
	Injection of liquidity into the banking system	✔ April-Sep	✔ No date info	✔ No date info	✔ No date info	✘	✔ No date info	✘	✘	✘
	Expansion of lending tools, including cutting of reserve requirement ratio as well as extension of maturity loans	✔ April-Dec	✔ May-Dec	✘	✔ No date info	✔ No date info	✔ No date info	✘	✘	✘
	International financial support / Loan agreement with the World Bank	✘	✘	✘	✔ April-Dec	✔ April-Dec	✔ March-Dec	✔ April-Dec	✔ March-Dec	✔ March-Dec

Selected COVID-19-related outcomes

Although the public health measures adopted to address the COVID-19 crisis have not varied much from country to country, the disparity in health outcomes has been significant. As at 31 December 2020, more than 1.2 million confirmed cases of SARS-CoV-2 and 20,000 deaths from COVID-19 have been reported in the nine selected Arab countries. By the end of December 2020, **Bahrain** had the highest percentage of COVID-19 cases out of the population (5.34 percent) followed by Jordan (2.87 percent), then **Lebanon** (2.66 percent). **Yemen** had the highest case fatality rate (29 percent), followed by **Syria** (6.2 percent), then Sudan (5.75 percent). Lowest case fatality rates were seen in UAE and **Bahrain** (0.32 percent and 0.38 percent, respectively). Similarly, **UAE** and **Bahrain** have conducted the highest number of tests per 1 million population, while Yemen has done the lowest. No information is available on the number of tests conducted in **Syria** or **Sudan**. As for the percentage of positive COVID-19 cases out of total tests conducted, **Tunisia** has the highest percentage (22.8 percent) followed by **Yemen** (12 percent), **Jordan** (9.22 percent) and **Lebanon** (9.12 percent). WHO recommends a positivity rate of around 3–12 percent as a general benchmark indicating adequate testing, which was achieved in most countries of the Arab region.

The number of active cases varied within each country, as did lockdown intensity and strictness of measures over time. Each country reached the highest number of active cases at a different point in time, with most peaking by the end of December 2020 (Table 7).

It is important to account for the inconsistencies in methodologies used to report cases among countries due to internal and external factors. For instance, given the limited testing activity and capacity across **Syria**, **Sudan** and **Yemen**, and the lack of credible information sharing and transparency, the actual number of cases likely exceeds available official figures.

Table 7: COVID-19-related outcomes in selected countries (as at 31 December 2020)

	Total cumulative COVID-19 cases	% of COVID-19 cases out of the population	Highest # of active COVID-19 cases	Total COVID-19 deaths	Case fatality rate (% of deaths out of total cases)	Total tests conducted	Tests per 1 mil. population	% of positive COVID-19 cases out of tests conducted
BAHRAIN	92, 675	5.34%	6.979 (Sep 19)	352	0.38%	2,401,947	1,384,190	3.85%
JORDAN	294,494	2.87%	137,385 (Nov 16)	3,834	1.3%	3,193,782	311,230	9.22%
KSA	362,741	1.03%	63,026 (July 13)	6,223	1.71%	11,146,0s89	317,310	3.25%
LEBANON	181,503	2.66%	51,926 (Dec 31)	1,468	0.8%	1,988,768	292,143	9.12%
SUDAN	25,500	0.0056%	8,324 (Dec 31)	1,468	5.75%	--	--	--
SYRIA	11,434	0.064%	5,373 (Dec 31)	711	6.2%	--	--	--
TUNISIA	139,140	1.17%	57,769 (Nov 4)	4,676	3.36%	635,100	53,452	22.8%
UAE	207,822	2.08%	23,943 (Dec 20)	669	0.32%	21,036,320	2,112,180	0.98%
YEMEN	2,099	0.007%	557 (June 15)	610	29%	17,404	577	12%
AVERAGE ACROSS THE 9 SELECTED COUNTRIES	153,092	1.7%	39,476	2,223	5.42%	5,774,201	638,726	8.75%

■ **Better than average**   ■ **Worse than average**   -- **No information found**

Overall pandemic response

The COVID-19 pandemic has triggered unprecedented efforts toward multisectoral action. Mirroring global efforts, this study demonstrates that the selected countries in the Arab region are making efforts to incorporate multisectoral action into their pandemic responses. However, certain challenges and gaps remain to be addressed for more efficient responses in the future.

The overall COVID-19 pandemic response in the selected countries for this study can be grouped into three broad categories:

1

EARLY RESPONSE, PROPER MEASURES AND SUCCESSFUL IMPLEMENTATION:

BAHRAIN, KSA AND UAE

KSA began taking precautionary actions early in January before WHO declared COVID-19 a pandemic and before the first case of COVID-19 was recorded in KSA on 2 March. The whole-of-government approach adopted at the national level allowed the right decisions to be taken on time and to be implemented promptly and in a coordinated manner. The WHO official noted that the Saudi Government had been quick to distribute information and guidance, and engage with communities through mass media and online, stressing important messages such as staying at home, social distancing, washing hands regularly, and wearing face masks (Hassounah, Raheel and Alhefzi, 2020).

Even though the **UAE** was the first country in the Arab region to report a COVID-19 case in late January 2020, it has since enacted a range of policies to contain and mitigate the impact of the pandemic on all sectors. The UAE was among the world's top 10 for COVID-19 treatment efficiency and among the world's top 20 for the implementation of COVID-19 safety measures (Moonesar *et al.,* 2020). It currently has the highest per-capita testing rates in the region and one of the highest rates in the world. In one study assessing the performance of most seriously affected countries regarding COVID-19 contagion control and medical treatment, the UAE was among those that have controlled the contagion efficiently; however, its performance regarding medical treatment was reported to be inadequate. The UAE had a clear strategy that relied on communication and coordination, with no room for rivalry, opposition or dissonance; this has allowed the country to rise to the forefront of effective decision-making. In addition. it was one of the first countries to announce the start of planning for recovery as part of its continuing efforts to contain the crisis. As such, it leads Arab nations and ranks 37th globally in the COVID Economic Recovery Index Ranking developed by the Horizon Research Group (Emirates News Agency, 2020). Several factors have contributed to attaining this top ranking, including synergy and concerted efforts while handling the health crisis; the availability of proactive crisis management plans; the Government's reliance on state-of-the-art technologies; and advanced infrastructure and institutional efficiency.

WHO's Eastern Mediterranean office commended **Bahrain**'s swift and effective countermeasures against COVID-19 as an example that other countries should follow (Hoffman, 2020). Bahrain quickly responded to the COVID-19 outbreak by providing no-cost medical treatment, living facilities and food to those most in need.

2

SUCCESSFUL HANDLING OF THE FIRST WAVE, BUT LOST CONTROL LATER:

JORDAN, LEBANON AND TUNISIA

At the beginning of the pandemic, **Jordan** had the lowest ratio of COVID-19 cases to population compared to other countries in the Middle East; it now has one of the highest ratios of COVID-19 cases per 1 million population. Jordan's initial measures to halt the spread were described as the strictest in the region and among the strictest in the world. During the first months of the outbreak, Jordan was able to successfully flatten the curve, with a limited number of infections recorded from March through August 2020 as a result of its authoritarian measures. Later, after the Government started easing lockdown measures, resuming all economic activities and reopening worship places, the country experienced a gradual increase in confirmed cases. This resurgence and expansion of the virus in Jordan was due in particular to the easing of controls over land border crossings, returning citizens, and physical distancing.

In **Lebanon** and **Tunisia**, the pandemic hit at a time of political struggle and economic uncertainty, hampering government response in different ways.

At the start of the pandemic, **Lebanon** was successfully managing its response, reporting between 0 and 100 daily cases from March to mid-July 2020. However, after the Beirut port explosions on 4 August 2020, cases began to skyrocket to the tune of over 1,000 cases on most days starting in mid-September and setting new records on an almost daily basis since December 2020. This has been attributed to the failure of the Government to develop a long-term strategy, with a breakdown of communication across sectors and weakened leadership capacity to steer the response. Similarly, **Tunisia** managed to successfully control the initial epidemiological threat posed by the pandemic, with the second-lowest fatality rate in the region. However, the Government was not as proactive as it could have been, effectively implementing needed measures almost two weeks after the confirmation of the first COVID-19 case. Travel limitations to Italy—the suspected origin point of the first cases—were not announced until a week after the first case was announced. Local authorities tried to keep open the most important transport lines, especially with France and Libya.

3

FAILED RESPONSE DUE TO CRIPPLING WAR:
SYRIA, SUDAN AND YEMEN

Yemen was one of the last countries worldwide to announce the first confirmed case of COVID-19 infection in its population. As at 31 December 2020, Yemen had the lowest publicly reported infection rate in the region and the highest case fatality rate in not only the region, but the world. The lack of transparency and weak reporting system in Yemen prior to the pandemic due to the protracted war have affected the national COVID-19 response and led to confusion and mistrust at different levels of decision-making, undermining multisectoral action.

Syria has no official number of COVID-19 tests conducted so far. Up until 16 March 2020, only 103 tests had been conducted in government-held areas, although many indicators suggest that Syria already had a considerable number of COVID-19 cases prior to the announcement of the first official case on 22 March 2020. In the Northwest Syria region, the local health authorities announced that they could not confirm that the region was free of cases given the limited testing capacity there as at 28 April 2020. Alongside a lack of transparency over the number of cases, little was publicly known about the health care system's readiness and capacity to handle an outbreak (Gharibah and Mehchy, 2020). High mistrust in government and subsequent fragmented responses by multiple actors hindered effective multisectoral collaborations.

The virus has hit **Sudan** at a critical time, leaving Sudanese authorities struggling to deal with the outbreak. Following a revolutionary uprising last year, the country has been navigating political transition amid a deep economic crisis. Despite these challenges and a fragile health system characterized by years of neglect and underinvestment, the country so far has a low number of COVID-19 cases compared to other countries in the region with similar economic and development status (except for Libya, Syria and Yemen). However, the low reporting of COVID-19 cases mostly reflects a lack of testing capacity and a lack of transparency in cases reported. The lack of a unified national response plan, insufficient funding and the absence of robust multisectoral coordination mechanisms with clearly delineated roles and responsibilities have weakened the overall pandemic response.

6

Enabling factors

The Arab region is distinctly affected by ongoing conflicts, political unrest and displacements. This has posed unique vulnerabilities during the pandemic not experienced in other parts of the world. Below is an overview of the key barriers and facilitators to adopting multisectoral approaches to COVID-19 in the selected countries.

Overview of key barriers

Barriers to multisectoral action were more acute in fragile Arab countries selected for this study (Sudan, Syria and Yemen) and to a lesser extent in middle-income countries (Lebanon, Jordan and Tunisia), where weak institutions, sectoral bureaucracy and fragmentation have undermined coordination. This is in contrast to high-income countries (Bahrain, KSA and UAE), where health system infrastructure is more advanced, robust multisectoral structures existed prior to the pandemic, and resources were available to quickly activate existing multisectoral structures or establish new ones.

Fragmented authorities and multiplicity of actors in charge

Despite the creation or reactivation of cross-sectoral entities in some countries to launch a national pandemic response, in certain cases, different sectors were still working in silos with minimal coordination. A multiplicity of actors, together with a lack of clarification and communication on the roles, responsibilities and decision-making authority of newly established entities raised the risk of inconsistencies in response outcomes, duplication of efforts and wasted resources.

In **Tunisia**, it was reported that three structures (the National Coronavirus Response Authority, the National Security Council and the National Committee for Disaster Prevention and Response and Relief Organization) were all functioning at the same time to tackle the COVID-19 crisis with a remarkable lack of coordination and no operational headquarters or national emergency information system. In **Syria**, nine years of conflict have led to major deficiencies in the country's health system and coordination mechanisms. There are still no direct channels, outside of the WHO umbrella, between de facto authorities in Northwest Syria and Northeast Syria on one hand, and the Syrian Government on the other. A short-lived coordination channel was briefly established between the Syria Democratic Council, the dominant political actor in Northeast Syria, and Damascus. This channel, however, proved to be ineffective mainly due to the lack of willingness on the part of the Syrian Government. As a result of the poor coordination mechanisms between the different de facto authorities in Syria, the country failed to reach and establish a national response plan to the pandemic. Similarly, in **Yemen**, faced with a multiplicity of actors in charge of public health as well as fragmented territorial control, the humanitarian agencies were challenged to operate across three substantively competing political-military entities: the Houthis; the southern separatist group known as the STC; and the internationally recognized Government. As a result, the implementation of the International Health Regulations and related legislation and policies during the pandemic was compromised.

Competing interests, competition for resources and lack of mechanisms for conflict management and building trust

Amid the lack of mechanisms for conflict management and building trust as part of national pandemic responses, interviewees in this study repeatedly invoked competition over resources and conflicts among sectors and actors at different levels, especially in fragile countries where political consideration was prioritized over public health. In many cases, political, personal and financial interests were reported to be at the core of these conflicts, hindering intersectoral action.

Lack of ownership and mandates defining roles and responsibilities of the different actors

The lack of a mandate defining roles and responsibilities and the absence of clear ownership have been reported as major challenges. Most governments in the selected Arab countries have failed to engage in meaningful joint initiatives or partnerships with non-state actors such as NGOs, CSOs and the private sector, which tended to make self-initiated contributions with no clear guidance or documentation of their roles and responsibilities in the pandemic response. Indeed, the crisis has demonstrated the urgent need to reorganize voluntary and social work and to better train social workers to be able to deal more effectively with crises and their social and psychological aftermath. The importance of dedicated individual actors should not be underestimated, because they have the potential to attain significant success even in resource-scarce situations; therefore, engaged social workers and non-state actors should be encouraged and allowed reasonable levels of autonomy and independence to leverage multisectoral and intersectoral initiatives at the national level.

Weak multisectoral culture and lack of knowledge, familiarity, and awareness of the meaning of multisectoral action and its importance

Siloed thinking and resistance to adopting multisectoral perspectives have been cited as challenges that apply to the health and other sectors. There is limited understanding of the importance of multisectoral collaboration and how best to promote and support multisectoral action for health at the national level. The concept of multisectoral action is still relatively new for most Arab Governments, where siloed activity is still the norm. There is also a lack of awareness of the wider determinants of health, and of the shared responsibility of responding to health problems beyond the Ministry of Health. Silo thinking can be deeply embedded in institutions and moving towards increased collaboration can require significant structural adjustments. Despite these challenges, it must be acknowledged that as a result of the pandemic there has been slight progress in this area: the importance of collaboration is becoming more widely recognized.

Lack of legitimacy of authorities and distrust in government leadership and public institutions

In conflict-affected Arab countries, national governments suffer from weak capacity and lack of legitimacy both nationally and in the international community. This has partly been attributed to perceived high corruption levels, which undermine the legitimacy and trust in authorities in charge of pandemic response. As a result, authorities within the same country often encounter difficulty working together during the pandemic, with multiple actors competing over scarce resources. Furthermore, the lack of clarity or even purposeful obfuscation in many of the selected countries at the start of the pandemic has led to confusion and mistrust, further hindering pandemic responses. In fact, one year after the start of the pandemic, some Arab countries are still not making their COVID-19 data public, or are not sharing the information, models and assumptions on which decisions and interventions are made. This can be linked to two major factors: the lack of political will to make such data public; and the weak digitalization of data collection and reporting in most of the selected Arab countries. Consequently, this perceived secrecy and institutionalized lack of transparency have eroded public trust and negatively affected the national goal of a successful multisectoral response.

Absence of a process to effectively monitor and evaluate the impact of measures adopted

National guidelines and recommendations have often not been translated into practice at the local level. This has been exacerbated by the lack of accountability and monitoring processes. In fact, the implementation of accountability mechanisms and monitoring frameworks has been described as difficult or sometimes impossible, especially in countries where entrenched political and administrative corruption has been reported. A lack of both vertical (intra-department or ministry) and horizontal (across ministries) reporting and accountability has been noted.

Difficulty in maintaining priority for collaboration and scarcity of permanent intersectoral mechanisms and structures

It was reported that coordination at the beginning of the pandemic was more robust as compared to one year later, and that the lack of sustainability is one of the barriers that has influenced the scope of the intersectoral effort. It became difficult to maintain and coordinate the active involvement of all sectors, state and non-state actors in implementing the policy response over time, as the perceived threat started to decrease. For instance, political changes in government or ministries have interrupted responses, in certain cases causing a break in continuity for intersectoral collaboration. This was specifically reported in **Tunisia**, where three different ministers of health were appointed over the course of the pandemic. Additionally, inadequate anchoring of the multisectoral governance structure within government in some countries undermined their convening power and ability to secure a budget line item. This highlights a need to entrench institutional arrangements to better enable and sustain multisectoral action.

Limited resources and funding available for implementing the response measures with lack of sustainable joint financing mechanisms

Knowledge, skills, and action plans alone are not sufficient unless backed by the power to obtain the necessary resources for actual implementation. The financial resources allocated to developing policies and for engaging multiple sectors in policy implementation activities were reported as insufficient. The inadequate financial and human resource capacity meant that policies were not being implemented; and there has been an over-reliance on external donors to support policy formulation and implementation. In **Yemen**, the work of the communications pillar has been greatly impacted by limited investment and resources for emergency communications at the regional level. At the country level, communications officers are reportedly overstretched, playing multiple roles from risk communication to resource mobilization. Further compounding Yemen's challenges is a lack of humanitarian funding, which has led to the reduction in incentive payments that were being made directly to health care workers.

The politicization of the pandemic

The prevailing political context has been another important factor influencing multisectoral collaboration. **Lebanon** faced several challenges while preparing for and managing the pandemic—from economic depression and political turmoil in the foreground to the more recent Beirut port explosion—which shifted political commitment away from the pandemic, weakening the collaborative and the overall response. In **Yemen**, the COVID-19 crisis has become yet another politicized element of the ongoing conflict, a way for the opposing parties to point at each other's failures or even accuse the other of helping spread the virus. In **Syria**, it has been reported that WHO has limited capacity to engage in such a large-scale complex conflict environment, as it does not have any physical presence inside Syria and has been facing enormous geopolitical challenges for its cross-border response from Turkey.

Overview of key facilitators

Below is an overview of key facilitators to enabling multisectoral collaboration in the pandemic response:

Prior relations between sectors and multisectoral entities in place

Before the pandemic, most of the selected countries had some form of national crisis management framework in place, with the aim of strengthening whole-of-government responses for hazards and threats. This proved an advantage for those countries in responding quickly to the pandemic. For instance, in the **UAE**, pandemic response management was centralized through the pre-existing NCEMA, established in 2007. During the pandemic, all governmental authorities have received guidance and support from, and reported directly to, NCEMA. In **KSA**, the Ministry of Health established a command and control centre and the Saudi Centre for Disease Prevention and Control after the discovery of the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in 2012; both are now operational on the front lines of the Kingdom's response to COVID-19. The more than 25 regional hospitals that were designated for isolation and treatment of MERS patients were well prepared to deal with COVID-19 patients.

In **Yemen** and **Syria**, infrastructure set up for previous outbreaks were switched to focus on COVID-19; for instance, 33 cholera-response teams in Yemen were rapidly deployed to detect and respond to the virus. Although the risk communication system in Yemen is currently unsatisfactory, it was reported that an effective coordination mechanism exists between humanitarian partners through the national health cluster (a WHO-led platform for coordinating humanitarian health responses). Similarly, in **Syria**, disease surveillance in all territories outside the control of the Syrian Government was covered by the Early Warning and Response Network established by a Syrian NGO in 2013 with limited resources.

Conversely, some countries missed the opportunity to reactivate existing entities to quickly respond to the pandemic due to a lack of documentation on their roles and responsibilities. For instance, despite having in place a National Committee for Disaster Prevention and Response prior to the pandemic, **Tunisia** formed new committees, which led to confusion and duplication of efforts.

Policy learning from previous experiences

Experiences learned from dealing with previous emerging infectious diseases have enabled countries to better respond to the current pandemic (Xiao and Torok, 2020). As previously noted, in **KSA**, the robust preparedness and public health response capabilities were strengthened by the experience of managing the MERS-CoV in 2012, as well as from decades of planning religious mass gatherings in the face of numerous public health challenges (Xiao and Torok, 2020). Additionally, the new policies developed and entities created to respond to the COVID-19 pandemic will help KSA to fight future epidemics or pandemics more effectively.

Political commitment and recognized interdependencies over a common threat

The scale and breadth of the COVID-19 pandemic, and the urgent need to mitigate its devastating impact, generated political commitment and support from all stakeholders in the selected countries. It also created a recognized need for sectors and actors to work together towards a common goal, accelerating the formation of collaborations, regardless of the extent to which such efforts were truly collaborative.

Recommendations

As health challenges increase in complexity, multi-level and multi-disciplinary public health interventions will become the norm (van Dale *et al.,* 2020). In this regard, it will become increasingly important to capitalize on existing governance functions, institutional structures, mechanisms and partnerships to reduce duplication of efforts and resource waste (van Dale *et al.,* 2020). Governments must continue to build upon the lessons learned from efforts to use multisectoral approaches to the COVID-19 pandemic, to be better prepared to respond to future crises (Forman *et al.,* 2020).

In this section, we put forward recommendations for strengthening multisectoral collaborations for public health emergency responses in the Arab region. We also incorporate wider considerations on how the current COVID-19 responses can be used as a window of opportunity to build greater resilience in health systems and advance health and human development in the region. The recommendations are grouped into three broad categories: governance and leadership functions; institutional structures, processes and mechanisms; and research and data ecosystems.

Governance and leadership functions

Ensure a shared understanding and align interests across sectors

Defining a shared vision and agreeing on specific goals are essential for effective and impactful multisectoral collaboration (Ratzan *et al.,* 2019). Effective communication and sensitization can enable a common understanding of vision and goals, so that all stakeholders are aligned and in coherence to maximize collective power and efficiency. Moreover, identifying and aligning the interests of partners, demonstrating mutual benefits, and demonstrating mutual wins are all critical for creating ownership across sectors and ensuring continuity of the collaboration. Managing and negotiating diverse interests is particularly important as well (Mikkonen, 2018).

Enhance stewardship capacity to steer a whole-of-government, whole-of-society response to health system strengthening and public health crises

It is becoming increasingly clear that a whole-of-government, whole-of-society approach is needed to help meet national priorities, including Universal Health Coverage (UHC) and the broader SDGs, build resilient health systems, and promote an effective multisectoral pandemic response (El-Jardali, 2020).

Strong coordination is needed to ensure that all sectors are working collaboratively to achieve a whole-of-government, whole-of-society response for addressing national challenges and building resilient health systems (Laverack, 2017). This, in turn, requires a discrete set of governance structures as well as stewardship and leadership skills. In many countries, government takes the lead in defining and coordinating roles and responsibilities across state and non-state actors and setting the rules of engagement (El-Jardali, 2020b).

In the Arab region, it is critical to identify leaders who will act decisively and steer health system reforms, coordinate and integrate efforts across sectors and actors, and drive a collaborative agenda (Al Saidi *et al.,* 2020). Such a role should be undertaken by individuals with the credibility, legitimacy and power to convene and influence (Bryson, 2006). To further enhance collaborative sustainability, leadership capacity needs to be developed across sectors and levels of government, and champions fostered in different sectors who can agree on common objectives (Rasathanans, 2017).

Additionally, strong governance should broaden collaboration in both horizontal and vertical dimensions. Vertical coordination helps ensure coherence of the strategy at all levels, from local to provincial to national. Each level must adjust its programmemes and policies to the collective perspective and agree on obligations. In particular, local authorities can help translate the high-level vision into local actions and inform contextual decisions.

Multilateral organizations and CSOs with prominent roles in fragile settings should streamline their responses and ensure harmonization with the national-level strategy in order to avoid fragmentation and duplication.

Promote the involvement of communities and civil society organizations and bottom-up approaches

Community-based organizations, social workers and members of the public have fundamental roles in both the immediate response to the pandemic and – perhaps more importantly – in building a stronger health system for the future. A whole-of-society approach can strengthen the resilience of communities to threats to health, security and well-being (Shepp, 2020; WHO, 2020). CSOs can bring greater transparency and accountability to the decision-making process and promote more responsive and socially-grounded policies and programmemes (Cheng *et al.,* 2020; Gilmore *et al.,* 2020).

Well-implemented community engagement strategies can support the design of context-specific interventions, build trust and community, improve risk communication, surveillance and contract tracing, and provide logistical and administrative support during public health crises (Gilmore *et al.,* 2020). For this to work, community engagement needs to be meaningful, follow best practices and be contextually specific. Governments should assess existing community engagement structures and use community engagement approaches to support appropriate policy measures and interventions (Gilmore *et al.,* 2020). They should ensure that community engagement activities align with national-level strategies.

With the increasing dependence on non-state actors in Arab states, especially the private sector and NGOs for health care provision, it is crucial to strengthen regulation of the private health sector and ensure that its activities are aligned with national response efforts. Private sector engagement is increasingly gaining ground as a pathway to achieving UHC and has been instrumental to the COVID pandemic response. The role of the private health sector during the pandemic in the countries studied holds important lessons on what regulatory frameworks are needed to harness the sector's potential, and on government's capacity to enforce such regulation.

Mobilize and allocate adequate resources to execute the mandate of the collaboration

Insufficient allocation of financial resources for engaging multiple sectors has meant that policies were not being implemented as planned in some of the selected countries. Although the international agencies are stepping up to fill these gaps, particularly in fragile states, such measures create further dependency on external funding in the public health care sector, which may have spill-over effects in shaping the funding, role, and coherence of the future health care reforms (Hamadeh *et al.,* 2021).

Resource plans should be an integral component developed early in the operational plan of the collaborative, with transparent procedures, tools, and measurements to ensure integrity (Ratzan *et al.,* 2019). Budgeting for collaborative activities should be a joint, multisectoral activity; the budget needs to cover all activities under the joint action plan, the human resources required to undertake them, and the expenses incurred to run the multisectoral governance entities (WHO, 2018). Funds should also be earmarked (whether through multisectoral co-financing, joint funding or new financing solutions) to guarantee execution of the mandate of the collaboration (McGuire *et al.,* 2019).

Institutional structures, processes and mechanisms

Institutionalize multisectoral coordination structures, with clear mandates, roles and responsibilities and decision-making authorities

A high-level, multisectoral coordination structure of core sectors can strengthen collaboration and effectiveness. While the majority of selected Arab countries have established national multisectoral coordination mechanisms, there was a lack of clarity on how they functioned, particularly regarding the closeness of the cooperation and the working methods. Having a multisectoral committee is a good start, but does not guarantee success (Mikkonen, 2018). Instead, increased effort should be channelled towards the dynamics of the structure: its mandate, clarity of goals, and clarity of roles (McQueen *et al.,* 2012; Mikkonen, 2018).

To maximize coherence, synergy and sustainability, the coordination structure needs a strong mandate (Man, 2018). The mandate formalizing a coordination mechanism may be issued by presidential decree, legislation or through a memorandum of understanding among partner agencies. Permanent multisectoral structures and mechanisms are preferred for their improved chance of sustainability and longevity. Additionally, for a collaborative to coordinate effectively, the structure needs to have authority and legitimacy to hold others accountable as well as manage power conflicts. Clarifying roles, responsibilities and decision-making authorities between sectors and actors is particularly critical (Mahlangu, 2019); in the majority of selected Arab countries, responsibilities, expectations and decision-making authorities were often not clarified, which led to duplication and hindered effectiveness. Membership composition should be informed by stakeholder analysis, to make sure the right sectors and actors are involved. A written agreement on what is expected by selected members and their respective sectors, and their degree of authority, could enhance collaboration as well (WHO, 2018).

Beyond bringing sectors together, effective collaboration requires sectors to engage in meaningful participation (Man, 2018). The use of communicative practices such as open communication, dialogue and confrontational deliberation is conducive to creating good relationships (Man, 2018). Strategies such as sharing information, demonstrating competency and good intentions, and making good on commitments can foster trust among partners (Bryson *et al.,* 2006; Rasanathan *et al.,* 2017; Mahlangu *et al.,* 2019). Mediation strategies could also help to avoid conflict escalation that might challenge the collaborative process, as could a sound organizational structure and operating procedures, including voting and leadership positions (Mikkonen, 2018; Ratzan *et al.,* 2019).

Integrate accountability mechanisms within the multisectoral collaboration

Accountability is an essential governance element, critical for strengthening legitimacy, building trust and enhancing effectiveness (Mahlangu, 2019). The data, information, models, rationale and processes by which the decisions are made should be made available for scrutiny (Forman *et al.,* 2020); lack of clarity or purposeful obfuscation can lead to confusion and mistrust (Forman *et al.,* 2020).

The WHO guidelines on pandemic preparedness state that decision makers' accountability is crucial, both in the planning stage and during implementation (WHO, 2017). This aspect was almost completely missing in the response of the nine selected countries where no accountability frameworks were integrated into the multisectoral pandemic response. Accountability in pandemic response and management should entail the following:

■ **Clarifying and publicizing lines of responsibility for the planning, budgeting and implementation of the multisectoral pandemic response. This must include provision for accounting and auditing, in liaison with relevant agencies such as finance ministries and audit institutions.**

■ **Ensuring accountability in financial management and procurement through budget transparency and robust internal and external auditing.**

■ **Integrating crisis-response fund auditing into ongoing monitoring and evaluation systems. This will ensure that audits are not simply a matter of testing vouchers and receipts – which are easily forged in highly corrupt settings – but are properly linked to outputs and outcomes. The Global Health Security Index Report 2019 emphasizes that domestic financing for health security should be tied to benchmarks within national action plans.**

Efforts to enhance accountability should strike a balance between promoting transparency (i.e. bringing previously opaque information or processes into the public domain, performance and financial audits) and promoting social accountability (i.e. citizen-led action such as community oversight boards, civil society watchdogs, participatory budgeting and planning, citizen scorecards, and media exposure).

Establish robust joint monitoring and evaluation systems to measure progress and encourage mutual learning

Measurement and evaluation systems can serve as powerful tools for governing multisectoral action, as the joint development of these monitoring systems enables mutual accountability for shared outcomes (Ratzan *et al.,* 2019). However, monitoring and tracking progress, particularly amid such a public health crisis, necessitates moving beyond measuring inputs and outputs to tracking societal impact (Ratzan *et al.,* 2019). This requires shared indicators that monitor the health, economic and social impacts of the partnership, as well as the internal procedures of the collaborative activity (Willis *et al.,* 2017). Gathering this data necessitates a shared measurement system involving standardized and ongoing data collection (Hanleybrown *et al.,* 2012; Willis *et al.,* 2017).

Established goals and objectives should be articulated in accordance with broader national targets. Ideally, monitoring and evaluation mechanisms should be administered by a competent third party independent of changing governments, civil servants and politicians (Mikkonen, 2018; Ratzan *et al.,* 2019). Measurements of multisectoral plan outcomes should guide evaluation and necessary course correction. Progress should be monitored through regular, publicly available reports (Ratzan *et al.,* 2019).

Reinforce the value of and build capacity in multisectoral collaboration

Recognition of the value of multisectoral collaborations will likely determine the speed with which Arab countries recover from this pandemic as well as their preparedness for future crises. While countries continue to address COVID-19 pandemic, it is critical to showcase the benefits of multisectoral collaboration so that countries will sustain the momentum in planning and coordination.

Implementing multisectoral collaborations requires new capacities and new ways of working. Expertise and capacity strengthening in areas such as coalition building, stakeholder engagement, strategic communications and policy modelling should be prioritized, as should the capacity to identify and analyse interlinkages, synergies and trade-offs, and to work across institutional boundaries. In the long term, there should be broader public health education on multisectoral and intersectoral action for health and well-being, with a focus on competencies for implementing cross-sectoral initiatives.

Research and data ecosystems

Strengthen and institutionalize the use of research evidence and public health expertise in decision-making processes

For health systems to serve population needs in an effective, efficient and equitable manner, research evidence should be placed at the heart of policymaking processes and responses. The establishment of a strong evidence base is critical to complement and supplement good governance, and to promote trust and accountability (WHO, 2018).

The COVID-19 pandemic has exposed disparities in capacity, role and influence of research and technical experts across Arab countries. Even in countries where public health expertise was available, their engagement was often ad hoc.

Protecting and strengthening the use of research in decision-making requires governments, funders, universities and academic communities to collabourate on plans that reflect the input of academicians and researchers in national policy decisions (Vilela, 2020). Various organizational arrangements can affect the level of integration and institutionalization among researchers, public health experts and policymakers, ranging from committees within ministries, to knowledge translation platforms, to publicly funded-external organizations and independent non-governmental organizations (El-Jardali *et al.,* 2020b; Koon *et al.,* 2020). However, more research is needed on effective arrangements for institutionalizing evidence within the unique public health policymaking context of Arab countries (El-Jardali *et al.,* 2020b).

Enhance robustness of health information systems

The COVID-19 pandemic can serve as an impetus to address long-standing underinvestment and undervaluation in routine sources of data, the paucity of available disaggregated data, and challenges to data-sharing across several countries of the Arab region, notably those inflicted by conflicts and displacement (Wehbe *et al.,* 2021). Investing in robust health information systems is critical to generate the relevant, timely and high-quality data needed to develop prompt and contextualized policy responses. Timely data from health information systems not only informs outbreak response, but also can generate much-needed evidence to strengthen health system resilience. Reliable data can also help to set indicators and targets that can be monitored across the collaborative.

Establishing robust health information systems requires commitment to high-quality data collection; scaling up of disease monitoring and surveillance to ensure timely data in response and recovery efforts; and strengthening digital health platforms (e.g. via centralized electronic medical records) while integrating routine and emergency health information systems. Appropriate incentive systems must also be in place to bolster cooperation to openly share and publish up-to-date data with which to establish evidence-based policies and coordinated health emergency responses during public health crises.

Generate much-needed evidence to strengthen health system resilience

Generate the relevant, timely and high-quality data needed to develop prompt and contextualized policy responses

Health information systems

Bolster cooperation to openly share and publish up-to-date data

Set indicators and targets that can be monitored across the collaborative
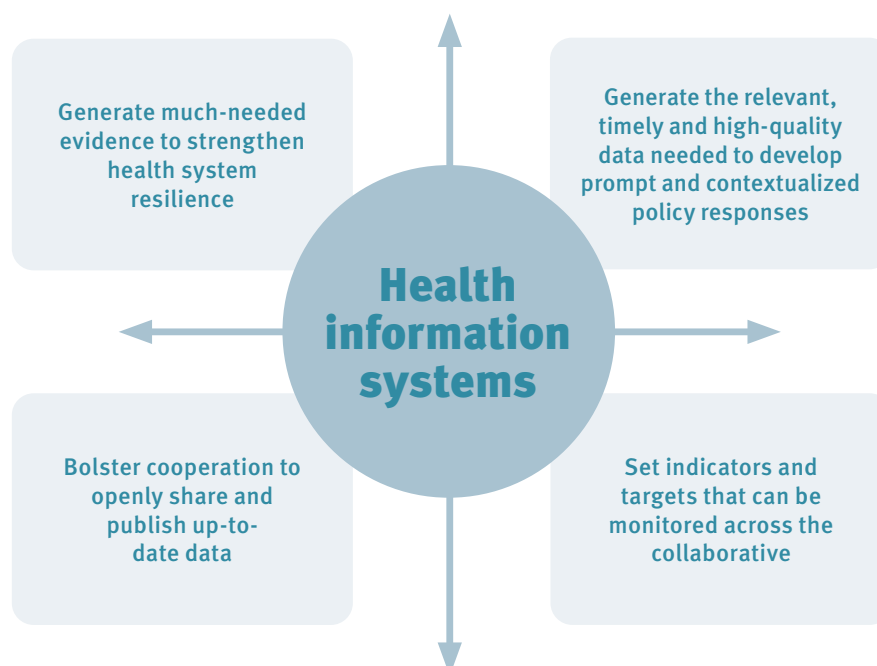
Harness the strength of complementary evidence network

Those working in complementary areas to produce knowledge that informs decision-making—researchers, public health specialists, guideline developers, epidemiologists, data analysts, economists, modelers and evaluation experts—must overcome the fragmentation that undermines the effectiveness of decision-making processes. It is important to establish transparent mechanisms for coordinating and integrating research, data and expertise across stakeholders and sectors. A science-based multi-disciplinary advisory encompassing all relevant knowledge producers can enable more effective, efficient and swift responses to increasingly complex public health challenges facing the Arab region and the world (El-Jardali *et al.,* 2020).

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Appendix A: Overview of the detailed policy measures adopted by each selected country

Bahrain

Public health measures

- **February 2020:** A multilingual national campaign to combat COVID-19 has been launched in the Kingdom of Bahrain to enhance public awareness and beef up prevention measures. The wide-ranging campaign would be channeled through the social media, the press, Radio Bahrain and TV, the health centres, labour camps and in cooperation with the Labor and Social Development Minister and the Labor Market Regulatory Authority (LMRA).

- **25 February:** Private and public schools, universities and nurseries suspended.

- **22 March:** National task force bans public gatherings of more than five individuals.

- **22 March:** Retail stores closed from 26 March to 9 April except to make deliveries.

- **22 March:** Bahrain International Exhibition and Convention Centre converted to COVID-19 testing facility.

- **23 March:** Friday and communal prayers at all mosques and prayer areas indefinitely suspended.

- **24 March:** Forex firms ordered to sterilize banknotes.

- **26 March:** Interior Ministry bans public gatherings exceeding five people.

- **31 March:** Civil Defense-trained cleaning companies start disinfection operations in Bahraini governorates.

- **2 April:** Civil Service Bureau confirms rate of remote working employees at ministries, entities and government departments to be increased to 70 percent from 5 April.

- **5 April:** Bahrain rolls out e-bracelets and a tracking app to ensure individuals required to self-isolate are complying with health orders. The bracelet will notify the monitoring station when the wearer is 15 metres away from their phone and a warning will be sent. Violators face legal penalties under Public Health Law No. 34 of 2018, including potentially being sentenced to imprisonment for a period not less than three months or a fine of BD1,000-10,000, or both penalties.

- **7 April:** Supreme Council of Health says closures of movie theatres, gyms, swimming pools, shisha cafes, salons and non-essential medical services to remain effective on 9-23 April. Restaurants may only conduct deliveries and public gatherings are to remain limited to five individuals or fewer during the period. All citizens and residents are required to wear face masks while in public.

- **21 April:** Movie theatres, gyms, fitness studios, swimming pools and recreational centres, and salons to remain closed until 7 May.

- **28 April:** Police directorates roll out campaigns to promote social distancing.

- **4 May:** AFP reports Bahrain has opened another field hospital on a man-made island located off its east coast.

- **12 May:** Health ministry says medical infrastructure capacity expanded to include 4,257 beds at isolation centres, of which 3,218 are currently occupied, and 5,489 beds at quarantine centres, of which 533 are occupied.

- **22 May:** All non-essential medical services to resume operations with social distancing guidelines in place. Salons and barber shops to reopen as at 27 May, and sport exercises in outdoor spaces and swimming pools permitted. Outdoor cinemas are allowed to operate, but indoor cinemas will remain closed.

- **5 June:** Ministry of Education confirms new academic year will begin in September with precautions in place to curb COVID-19.

- **20 June:** Lower Criminal Court fines nine defendants BD1,000 each for violating health regulations and measures to combat COVID-19.

- **28 July:** Mosques are still closed in Bahrain as part of preventive measures to mitigate the spread of the COVID-19 through congregations.

- **23 July:** Gyms, sports halls, outdoor sports fields and swimming pools allowed to reopen from 6 August.

- **10 August:** Cabinet approves a proposal to provide an isolation ward for incoming passengers that have visited countries with high COVID-19 infection rates.

- **9 August:** Phase three trials of COVID-19 vaccine begin in cooperation with partners from the UAE and China.

- **17 August:** Administrative and teaching staff at Bahraini schools will resume work on 6 September and students will return on 16 September. Parents will have the option to choose between in-person or online learning.

- **26 August:** Friday prayers remain suspended at most mosques under Ministry of Justice, Islamic Affairs and Endowments' plan to gradually reopen mosques in the country. Fajr (dawn) prayers will be allowed daily from 28 August, following the reopening announcement by the Supreme Council for Islamic Affairs. Friday prayers will be permitted with a limited number of worshippers at Ahmed al-Fateh Mosques.

- **24 September:** Fine for failing to wear a face mask in public places raised from BD5 (13.30 USD) to BD20 (53.2 USD).

- **1 October:** Ministry of Education announces administrative, teaching and technical staff will resume work on 4 October, confirming staggered re-entry at of 50 percent of the teaching staff, with rotated school attendance.

- **10 November:** Manaf al-Qahtani, infectious diseases consultant and microbiologist at the BDF Hospital, says Bahrain placed an order in August to purchase more than 1 million doses of the COVID-19 vaccines being developed by Pfizer-BioNTech, AstraZeneca and Sinopharm.

- **4 December:** Bahrain becomes the second country in the world, after the UK, to grant emergency-use authorization (EUA) for the COVID-19 vaccine made by Pfizer and its German partner BioNTech.

- **6 December:** Mosques across Bahrain have been re-opened for afternoon prayers. Mosques will now open for dawn, noon and afternoon prayers, however no announcements have been made on the sunset and evening prayers.

- **8 September:** Bahrain's education and health ministries launch campaign to conduct COVID-19 tests for all public-school administrators, teachers and technicians at the Bahrain International Exhibition and Conference Centre ahead of resumption of new academic year on 20 September.

- **10 December:** Plans and preparations to provide a COVID-19 vaccine, free of charge, across 27 medical centres, were discussed. These plans include vaccinating those over the age of 18, with a capacity of vaccinating 5,000 individuals a day, and working to expand this programme to reach 10,000 vaccinations a day.

- **13 December:** National Health Regulatory Authority says it has approved the registration of Sinopharm's COVID-19 vaccine after the submission of all documentation by G42 Healthcare, the company's exclusive distributor in the MENA region. Health ministry launches online registration for vaccination drive.

- **17 December:** Inoculation drive begins in Bahrain, one day after King Hamad bin Isa al-Khalifa receives the vaccine.

Social measures

- **20 May:** BD 5 million allocated to support Bahraini families in need and individuals who have been affected by COVID-19.

Economic measures

- **2 April:** Labor Market Regulatory Authority terminates monthly work fees and fees for issuing and renewing work permits for three months from 1 April.

- **8 April:** Plans announced to pay BD 215 million (569.3 million USD) in April-June wages for 100,000 citizens employed in the private sector, waive rents and allowances from tenants of municipal properties and double social security benefits.

- **7 April:** Reopening of commercial and industrial businesses providing goods or services directly to customers has been permitted provided employees and visitors wear face masks, overcrowding is prevented, sterilization is carried out and queueing is arranged with social distancing guidelines in mind. Private sector companies are encouraged to continue working remotely where possible and limit employee numbers within offices.

- **20 April:** Cabinet approves 30 percent spending cut and rescheduling of construction projects to free up funds to combat COVID-19.

- **27 April:** Prime Minister Prince Khalifa bin Salam al-Khalifa chairs cabinet session during which Manama confirms BD300 will be paid in benefits to 950 bus and taxi drivers, as well as 829 driving trainers, who do not have commercial registrations or receive a pension, for three months as part of its stimulus package. The cabinet also decided to pay the full salaries of 422 workers in the kindergartens, and 102 workers in nurseries, who are not insured in the Social Insurance Organization, for three months through the Labor Fund.

- **29 April:** Prime Minister waives three months of rent for tenants and beneficiaries of leased shops and lands registered in with the Supreme Council for Environment.

- **29 June:** Government to pay 50 percent of salaries for private sector workers most impacted by COVID-19. Payments to start from July, with Government also confirming extension of assistance to Bahraini citizens by paying their electricity and water bills.

- **6 July:** Cabinet approves decision to reduce some fees imposed by the Labor Market Regulatory Authority on all types of work permits for one year, and all monthly fees related to them by 50 percent for three months, starting from July.

- **11 July:** Social Insurance Organization to pay, from the Unemployment Insurance Fund, a maximum of 50 percent of the salaries of Bahrainis working in private sector companies most adversely affected by the pandemic, provided that the Bahraini employee is insured as at the end of June 2020, or is employed and insured through the National Employment Programme by the end of the month. Companies eligible for the benefits include operations in sectors that felt business disruption and could not pay wages, retained its Bahraini employees during 2020 and expressed commitment to paying the remaining portion of the salaries of the Bahraini employees in full and without deduction on the date set for salary payments.

- **27 July:** Cabinet decides to exempt citizen subscribers of electricity and water services in their first household from paying municipal fees for a period of three months starting from July 2020. Ministry of Education directed to take the necessary measures to prepare for the 2020/21 academic year for both public and private schools, with the choice of in-person or remote learning for students left to their parents.

- **3 September:** Percentage of workers working in the office at the Ministry of Labor and Social Development increased from 6 September.

- **6 September:** Re-opening of public schools has been postponed by two weeks in order to test all administrative, technical and teaching staff for COVID-19. Public schools were scheduled to re-open for administrative, technical and teaching staff on 6 September, but following the postponement decision, they will start the new academic year on 20 September.

- **28 September:** Bahrain has extended a scheme in which it pays half of the salaries of nationals working in parts of the private sector impacted by the coronavirus pandemic. Payments will now continue until the end of the year.

Jordan

Public health measures

- **14 March:** Prime Minister says flights to be grounded from 17 March, and schools, universities, tourist sites, sports events and cinemas to be suspended for at least two weeks.

- **20 March:** Jordan signals start of indefinite curfew at 7am by air-raid sirens sounding across capital city Amman after the decision to impose the curfew—which covers all businesses, including supermarkets and pharmacies—was announced at 4pm the previous day.

- **22 March:** Deliveries of cooking gas and water are permitted by the Government.

- **24 March:** Government starts trial runs of home deliveries for medicines, fuel and foodstuff to the country's population of 10 million.

- **24 March:** Minister of Energy and Mineral Resources says cooking gas distribution agencies and vehicles are exempted from curfew as demand for gas cylinders grew amid unusually cold weather conditions.

- **29 March:** Prime Minister extends suspension of normal working hours at public sector offices for two weeks to 15 April.

- **29 March:** Minister of State for Prime Minister Affairs says movement permits to be introduced before the end of the week. Labour Minister says private sector employers will be permitted to visit their offices for payroll operations.

- **30 March:** Minister of State for Media Affairs extends closure of state institutions until mid-April.

- **30 March:** Health ministry announces new safe shopping measures, with Jordan Armed Forces-Arab Army and Public Security Directorate urge banks to practice social distancing.

- **31 March:** All-day lockdown involving the closure of previously exempted commercial stores and establishments and a ban on people's movement across the kingdom will begin on the night of 1 April.

- **3 April:** One-day curfew imposed as measure to curb COVID-19, confining 10 million residents to their homes.

- **8 April:** Shops and institutions previously exempted from national curfew to close for 48 hours on 9-11 April.

- **12 April:** Government extends month-long lockdown that has closed schools, universities and government agencies until 30 April.

- **12 April:** Personnel of the civil defense department's hazardous materials (hazmat) team have finished disinfecting 131 sites nationwide, 22 of which were during the last 48-hour's comprehensive curfew, as part of a sterilization process to slow the spread of COVID-19.

- **14 April:** Jordanian Ministry of Awqaf and Islamic Affairs says Taraweeh prayers during Ramadan to be performed only at home.

- **19 April:** Universities, wedding halls, restaurants and mourning houses will be closed and public gatherings continue to be banned, Jordan's head of COVID-19 Crisis Management Group Operations.

- **22 April:** Ongoing curfew measures to remain in place during Ramadan, with essential employees to work from 10am to 3pm.

- **26 April:** Public transport to resume with staff capacity of under 50 percent in all governorates and regions.

- **26 April:** Ministry of Tourism and Antiquities says 209 restaurants and pastry shops across Jordan will be allowed to resume operations.

- **27 April:** Barbershops, beauty parlours, drycleaners and cosmetics shops allowed to reopen. Government offices, schools and universities will remain shut until after Ramadan. Airports and border crossings with neighbours Syria, Iraq and Saudi Arabia are still closed to passenger traffic.

- **27 April:** Residents of Amman can now drive their private vehicles between 8am and 6pm in the first such move since a nationwide curfew nearly 40 days ago that ordered the country's population of 10 million to stay at home. The odd-even license plate policy will determine the days on which drivers may or may not drive their cars. It is compulsory for users of public transport to wear masks and gloves.

- **30 April:** Shops in the malls, excluding arcades, cinemas, cafes and restaurants, will be allowed to resume their work, provided that they apply general safety procedures, according to Minister of Industry, Trade and Supply.

- **3 May:** Minister of Industry, Trade and Supply says all economic sectors are allowed to reopen at their full production capacity from 6 May, provided that the number of Jordanian workers is not less than 75 percent of the total. The requirement for odd and even license plate numbers to move on alternate days will be canceled as at 10 May, but education facilities, and social, leisure and religious venues to remain closed. Restaurants will be allowed to provide handling services until 6pm and home delivery services until 8pm from 6 May.

- **11 May:** Shops and businesses allowed to resume operations until 7pm every day. Outdoor movement hours extended from 8am-7pm every day.

- **16 May:** Universities and schools will not open until the end of the school year.

- **20 May:** Full curfew announced from Thursday midnight to Sunday midnight. Lockdown restrictions also eased, allowing citizens to move using their vehicles until 11 pm on 20 and 21 May, with odd and even license plate numbers to move on different days.

- **26 May:** Public sector employees start gradually returning to work. Public sector transport excluded from odd-even license plate policy.

- **30 May:** Mosques and religious sites gradually planned to reopen this week after public-sector employees returned to work last week.

- **3 June:** Comprehensive curfew announced for 5 June, with worshippers allowed to walk to mosques for Friday prayers.

- **6 June:** Mosques reopened for the first time since March. Ministry of Tourism allows restaurants and cafes to offer shisha, provided that people sit on outdoor terraces. Nurseries, restaurants, cafes, churches, sports clubs, hotels and hospitality areas, tourist sites and domestic aviation are also allowed to resume operations.

- **14 June:** Facilities where employees and visitors are not wearing masks, or those that do not comply with precautionary measures, will be penalized under Defense Order No 11.

- **27 June:** Amusement parks and play centres in tourist resorts, and special education centres, allowed to reopen from 28 June, provided precautionary measures are adhered to.

- **15 July:** Schools to reopen on 1 September, with education ministry envisioning three options—regular classes, online learning or in-class learning in shifts—based on country's COVID-19 situation at the time.

- **26 July:** Airports to resume flights at full capacity from 5 August.

- **4 August:** Curfew hours are reextended to start at 1am instead of 2am and working hours for businesses must end at 12am, with citizens not allowed to leave their houses after 1am.

- **19 August:** Rusaifa Municipality closes sports city and public parks after COVID-19 case emerges.

- **27 August:** Administrative governors instructed to detain for 14 days the organizers of events and social gatherings comprising more than 20 guests.

- **8 September:** Government says it will not impose a blanket curfew this weekend, and instead focus on tighter control. Wedding parties, funerals and activities where there are gatherings will be placed under tighter scrutiny. During curfew hours, shops will be required to close at 12am, with curfew hours to begin from 1am. The lockdown includes closing places of worship, public markets, schools and gathering areas, and imposing a curfew from 8pm until 6am.

- **28 September:** Twenty-four schools, including 12 public schools, six private schools and six United Nations Relief and Works Agency schools, have suspended attendance and switched to remote learning, the Ministry of Education says.

- **30 September:** Jordan's Government announces plan to reopen mosques, churches, restaurants and cafés from 1 October even as COVID-19 cases spike in the Hashemite kingdom.

- **6 October:** Comprehensive curfew to be imposed from midnight on Thursday for a period of 48 hours and will be repeated in the coming weeks. Armed forces will be deployed in all governorates to ensure compliance.

- **8 October:** More than 100 fixed COVID-19 testing sites will be opened across the country.

- **7 December:** The first military field hospital for COVID-19 patients opens at Prince Hashem Hospital in Zarqa, equipped with equipment to treat COVID-positive patients. Two similar field hospitals will be opened during the coming weeks to boost the capability to address the pandemic, bringing the total capacity of the three field hospitals to 900 beds, of which 220 are for intensive care.

- **8 December:** State Media Affairs Minister, has said that preventive measures including a blanket curfew on Fridays will remain in place until the end of 2020.

- **14 December:** Jordan's Food and Drug Administration says it has granted an emergency license to Pfizer, helping the country meet 5 percent of its citizens' vaccination needs. Pfizer's batch of vaccines is expected in Jordan by February. A study is under way to also allow the use of two other vaccines. Jordan plans to inoculate at least 20 percent of its citizens.

- **16 December:** Prime Minister directs health ministry to ramp up supervision of compliance with COVID-19 treatment pricing in private hospitals.

Economic measures

- **15 March:** Central Bank of Jordan (CBJ) cuts compulsory reserves for commercial banks to 5 percent from 7 percent, adding more than JD500m (705 million USD) of extra liquidity in the market.

- **15 March:** CBJ governor tells Reuters commercial banks have been asked to delay payments of loan instalments by companies and to allow the rescheduling of retail loans without penalties to support private sector and individual borrowers.

- **16 March:** CBJ reduces main policy rate to 2.5 percent from 3.5 percent.

- **29 March:** Prime Minister and his Government team reportedly donate salaries for this month to Jordan's general budget to support the state treasury, especially the health ministry.

- **31 March:** Prime Minister establishes national fund for COVID-19 donations.

- **8 April:** Prime Minister issues defense order stating that all workers in private sector institutions and establishments subject to the Jordanian Labor Law are paid wages for March. Full-time employees' salaries may be cut by no more than 30 percent if the reduction is mutually agreed upon and follows salary cuts in the higher management too.

- **14 April:** National Aid Fund to launch a government-sponsored programme to help day labourer's affected by weeks-long lockdown enforced following the outbreak of COVID-19. The cash assistance programme will serve about 200,000 families in its first stage.

- **30 April:** World Bank provides Jordan 20 million USD coronavirus relief package.

- **15 June:** Prime Minister issues Defense Order No 13, which allows the liquidation of financial guarantees worth JD30m ($42m) for travel and tourism agencies. Defense Order No 14 is also issued with programmes that protect workers in the tourism sector and a ban on laying off employees in the sector.

- **13 July:** JD27m to be distributed to families in need of relief due to the financial impact of COVID-19. It marks the third and final payment from the Himat Watan fund established in April to aid Jordanians and facilitate the return of citizens stranded abroad.

- **3 December:** Jordanian Prime Minister announces a series of measures to alleviate the economic situation in Jordan, including:

  - The allocation of JD320m to expand social protection for families and individuals. The Government will help fund some sectors to protect nearly 180,000 jobs at about 20,000 private sector institutions;

  - The launch of a Tourism Risk Fund, worth JD20m, to support Jordan's tourism sector;

  - A six-month, JD200m programme to be launched in December to improve employment opportunities in the private sector for 170,000 workers affected by the pandemic;

  - Expanding the beneficiaries of the National Aid Fund, covering 400,000 more people, with a budget of JD100m.

Kingdom of Saudi Arabia

Public health measures

- **5 March:** Non-essential spaces, including malls and restaurants, closed.

- **20 March:** Interior Ministry suspends domestic flights, trains, buses and taxis.

- **22 March:** Three-week curfew ordered by King Salman.

- **28 March:** Interior Ministry extends suspension of flights and domestic travel, and work in public and private sectors.

- **29 March:** Suspension of flights and work in the public and private sectors extended indefinitely and Jeddah sealed off.

- **29 March:** Municipalities carry out road sterilization and disinfection works, and movement permits introduced for travel within Saudi Arabia's provinces in exceptional circumstances.

- **31 March:** Hajj and Umrah minister Muhammad Salih bin Taher Banten urges pilgrims and foreign governments to wait for more clarity on planned pilgrimage in late-July.

- **1 April:** Ministry of Health issues shopping guidelines.

- **3 April:** Curfew imposed in Dammam, Taif and Qatif until further notice.

- **4 April:** King Abdulaziz City for Science and Technology opens fast-track grant programme to develop coronavirus research.

- **4 April:** Interior Ministry imposes 24-hour curfew on seven neighbourhoods in Jeddah governorate.

- **10 April:** Islamic University in Madinah launches programme to support coronavirus-related research and studies in different fields, including legal studies related to epidemics and pandemics; studies featuring Saudi Arabia's efforts to combat the spread of the virus; and the economic impact of these illnesses.

- **11 April:** Interior ministry spokesperson says King Salman ordered the extension of curfews across Saudi Arabia "until further notice" before the expiry of the 21-day curfew measure that started on 23 March.

- **12 April:** Taraweeh prayers might be suspended in mosques in Saudi Arabia during the holy month of Ramadan, local newspaper Al-Riyadh reported, citing the Saudi Ministry of Islamic Affairs, Dawah and Guidance.

- **15 April:** Ministry of Interior isolates Al-Atheer district in Dammam, banning entry and exit and imposing a 24-hour curfew until further notice. Residents are allowed to leave their houses for essential needs such as healthcare and food supplies from 6am to 3pm.

- **17 April:** Saudi Arabia's grand mufti Abdul Aziz bin Abdullah Al-Sheikh says Taraweeh and Eid prayers are to be performed at home as a coronavirus precaution.

- **18 April:** 34 citizens and residents arrested for flouting curfew restrictions as interior ministry announces unified permits for outdoor movement.

- **20 April:** General Presidency for the Affairs of the Two Holy Mosques says it will extend the suspension of prayers at the Grand Mosque and the Prophet's Mosque during the holy month of Ramadan.

- **20 April:** Jeddah Municipality installs thermal cameras to monitor workers and customers at shopping centres.

- **21 April:** Curfew timings changed to 9am-5pm during Ramadan for cities under total lockdown.

- **26 April:** Saudi malls and retail stores reopen with stringent safety measures, such as disinfection every 24 hours, a ban on customers paying with banknotes and no entry for children under the age of 15. Mall entertainment venues such as cinemas, play areas and arcades, as well as prayer rooms and changing rooms must remain closed.

- **26 April:** Curfew lifted from 9am to 5pm until 13 May in all parts of the kingdom except Makkah, where the 24-hour curfew will continue. Wholesale and retail trade stores, commercial centres or malls, contracting companies and factories are allowed to resume their activities. Salons, cinemas and recreational centres to remain closed.

- **27 April:** King Abdul Aziz University announces the winners of a research initiative on COVID-19, with 42 of 230 proposals selected for further study.

- **28 April:** More than 250,000 temporary accommodation spaces identified to house foreign workers in Saudi Arabia during COVID-19.

- **29 April:** Thermal cameras to detect feverish worshippers at the entrance of the Grand Mosque.

- **1 May:** 100-bed field hospital established in Makkah to allow authorities respond more quickly to new cases.

- **2 May:** Essential work such as shipping and freight operations will continue, and vital factories at Dammam's second industrial area will operate at only one third of their capacity.

- **5 May:** People violating measures designed to stop the spread of coronavirus could be sent to jail, Saudi Arabia's interior ministry says.

- **7 May:** Self-sanitization gates have been installed at Mecca Grand Mosque and gatherings of more than five individuals are banned.

- **11 May:** Ministry of Defense builds two 100-bed mobile hospitals in Makkah.

- **11 May:** All-day curfew on Samtah governorate lifted and residents allowed to move between 9am and 5pm, but guidelines excluding exceptional activities from curfew restrictions will remain in force.

- **12 May:** Saudi Arabia announces a 24-hour curfew for Eid al-Fitr holidays on 23-27 May. Economic activities will remain open and people can move freely from 9am-5pm until then, excluding in Makkah, which remains under full curfew.

- **15 May:** Research Centre of King Faisal Specialist Hospital team in Riyadh develops a diagnostic test to detect the coronavirus infection.

- **17 May:** Health ministry says number of daily COVID-19 tests has been increased from 5,000-6,000 to 16,000-18,000. New fines have also been also announced for violators of social distancing rules. First-time violators will pay 10,000 SR (2,666 USD) and organizers of illegal gatherings, attendees and those sending invites will pay 5,000 SR. These fines will double when violations occur for a second time. If the venue belongs to the private sector, it will be closed for three months, and six months if the offence is repeated. Expatriates violating these regulations will be permanently expelled from the country after paying the penalties.

- **24 May:** Free movement permitted between 6am and 8pm, and domestic flights resumed. Public sector employees will gradually start returning to work from the end of this month.

- **26 May:** Saudi Arabia starts to lift restrictions, with three-phased programme to bring the nationwide curfew to an end on 21 June, except in Makkah. Mosques authorized to reopen with restrictions, but Hajj and Umrah pilgrimages remain suspended.

- **31 May:** Domestic flights set to resume as mosques across the country, except in Makkah, also reopen.

- **31 May:** Interior ministry revises regulations on gatherings and penalties. Preventive protocols introduced for mosques, offices, oil and gas facilities, construction sites and offices and restaurants, among other sectors.

- **5 June:** Interior ministry places 15-day curfew in Jeddah from 3pm–6am from 6 June. Mosques closed again and government and private sector employees in the city barred from working in offices. Gatherings of more than five people are prohibited, but domestic flights and train journeys will continue to operate, and people can enter and exit the city outside of the curfew.

- **7 June:** Temporary hospital opened at Jeddah International Exhibition and Convention Centre, comprising 20 beds, with a capacity of 500 beds. Thirty-one clinics for individuals with COVID-19 symptoms also opened in Riyadh, Makkah, Madinah, Jeddah, Al-Qassim and Al-Ahsa.

- **10 June:** Recently opened mobile lab has completed 6,000 COVID-19 tests in Madinah to date.

- **11 June:** Seventy-seven mosques to open in Al-Jouf region to ensure social distancing and help to avoid crowding.

- **13 June:** Ministry of Health launches campaign to ensure Saudi residents maintain social distancing.

- **17 June:** Ministry of Sports releases guidelines that sport clubs and training areas must follow when restrictions are eased on 21 June. Guidelines are also expected for gyms and private facilities.

- **28 June:** Saudi-US scientific research team comprising Saudivax and the US's Abound Bio enters licensing agreement to develop COVID-19 treatment.

- **6 July:** Saudi Arabia issues guidelines for Hajj 2020, including the prohibition of all entry into Mina, Muzdalifa and Arafat without permits from 19 July.

- **13 July:** Individuals entering Mina, Muzdalifah or Arafat without a permit between 19 July and 2 August, including during Hajj, will be fined SR10,000, with the amount to double if the violation is repeated.

- **28 July:** ICU bed capacity increased by 41 percent in Riyadh.

- **1 August:** Capacity of intensive care unit beds increased by 31 percent in Tabuk's hospitals as part of continuing measures to improve healthcare services and COVID-19 preparations in the kingdom.

- **8 August:** Health ministry says an action plan is being developed to implement a clinical trial for the third phase of a vaccine against the coronavirus, in cooperation with the Chinese company Cansino. The first and second phases of the trial were conducted in China.

- **15 August:** Saudi Arabian schools to resume with distance learning for the first seven weeks, following which the situation will be reviewed. The new academic year is due to begin on 30 August. Exceptions will be made for university and technical school students with practical curriculums who are required to attend courses in person.

- **22 August:** Ministry of Human Resources and Social Development defines health precautions for public sector employees to return to office work from 30 August. Remote working may be approved for employees if the number working outside the office does not exceed 25 percent of the total workforce.

- **8 October:** Distance learning will continue at Saudi schools until the end of the first term of the educational year, which concludes in December.

- **18 November:** General Presidency of the Grand Holy Mosque and Prophet's Holy Mosque Affairs reveals sterilization programme for the Grand Mosque in Makkah.

- **23 November:** Ministry of Health plans to offer free vaccines to 70 percent of the population, including citizens and expats that have not yet contracted COVID-19, by the end of next year.

- **10 December:** Saudi Food and Drug Authority (SFDA) says it has approved the registration of Pfizer-BioNTech's COVID-19 vaccine in the Kingdom. The approval was based on the data provided by Pfizer on 24 November.

- **15 December:** Health ministry starts registrations to receive COVID-19 vaccine. Vaccination will be free and is divided into three stages, the first of which will cover citizens and residents who are over 65 years old; professionals who are most vulnerable to infection; people who are obese and have a body mass of more than 40; those who have a lack of immunity or take immunosuppressive drugs; and those who have two or more chronic diseases, such as asthma, diabetes, chronic kidney disease and chronic obstructive pulmonary disease. The second stage includes citizens and residents who are over 50 years old, the rest of health practitioners, and those who have one chronic disease. The last stage is for all citizens and residents who wish to take the vaccine.

- **17 December:** Vaccination drive begins with Health Minister receiving the COVID-19 jab in Riyadh.

Social measures

- **7 April:** Saudi Arabia suspends prison sentences in debt cases and King Salman orders temporary release of debtors currently in jail.

- **11 April:** The Saudi Ministry of Human Resources and Social Development will allocate 500 million SR (133 million USD) to the Saudi Fund for Development to help people struggling with the impact of the coronavirus outbreak, including the elderly, widows, the disabled, families of prisoners, divorced women, students and stranded Umrah visitors.

- **19 April:** Qassim Governor Prince Faisal bin Mishaal bin Abdul Aziz inaugurates initiative allocating 250 million SR (66 million USD) in phase 1 to help families in Buraidah affected by the measures taken to fight the pandemic.

Economic measures

- **14 March:** Saudi Arabian Monetary Authority (Sama) pledges 50 billion SR package for private sector growth.

- **20 March:** Finance Ministry commits 70 billion SR for economic growth.

- **22 March:** Expat levy waived for work permits expiring on 20 March-30 June, and tax payments deferred.

- **26 March:** Saudi Arabian Monetary Authority orders licensed payment services providers to raise the allowed top-up of the monthly ceiling limit for e-wallets to 20,000 SR.

- **28 March:** Saudi Arabian banks donate 155.1 million SR (41.3 million USD) to Health Endowment Fund to combat the spread of COVID-19.

- **29 March:** Sama approves new round of economic support initiatives, including the provision of finance for individuals who have been made redundant in the private sector, fee exemptions in some cases, reassessing credit card interest rates and refunding forex transfer fees for those affected by travel plan cancellations.

- **29 March:** Education Ministry to continue disbursement of financial allocations, medical insurance and treatment allowance over the next three months for Saudi scholars and their companions, including those who have been suspended from disbursement, or whose scholarships have ended, residing outside the kingdom.

- **30 March:** King Salman orders free COVID-19 treatment in government and private hospitals for citizens and residents, including those in violation of residency laws.

- **31 March:** Makkah governor Prince Khalid al-Faisal launches Barran bi Makkah campaign to support families and small businesses affected by COVID-19 containment measures.

- **1 April:** Ministry of Human Resources and Social Development has allocated 17 billion SR (4.5 billion USD) to deal with the economic and jobs fall-out from COVID-19, with measures including fee exemptions for expat workers whose residency permits (iqama) expire before 30 June, and disallowing forced unpaid leave without employees' consent.

- **1 April:** Minister of Human Resources and Social Development and chairman of the General Authority of Awqaf, inaugurates 500 million SR community fund to contend with COVID-19's effects, including 100 million SR from the awqaf authority and 50 million SR from the labour ministry.

- **1 April:** Saudi Electricity Company (SEC) contributes 30 million SR and the company's contractors and suppliers and other partners add 24.65 million SR to support the Health Endowment Fund.

- **3 April:** King Salman issues royal decree ordering the allocation of 9 billion SR (2.4 billion USD) to compensate citizens working in facilities affected by repercussions of the pandemic. The royal decree exempts Saudis working in the affected private sector facilities from articles 8, 10 and 14 of the Unemployment Insurance (Sanad) scheme.

- **7 April:** 7 billion SR (1.86 billion USD) allocated to the Health Ministry following earlier 8 billion SR support package to combat the pandemic, and another 32 billion SR has been approved for health facilities, health minister says.

- **13 April:** Saudi companies and individuals have contributed almost 1 billion SR (266 million USD) in cash and kind to the Ministry of Health's coronavirus fund. The energy sector has contributed about 500 million SR and Saudi banks have contributed almost 160 million SR.

- **14 April:** A total of 33 Saudi scientists and researchers assembled, and funding allocated for a Ministry of Health programme to find a vaccine for COVID-19.

- **15 April:** King Salman approves package of additional stimulus measures, including 50 billion SR to expedite the payment of the dues of the private sector; a 30 percent reduction in electricity bills for consumers in the commercial, industrial and agricultural sectors in April and May, with the possibility of extension if needed; and 47 billion SR in additional funding for healthcare. Other initiatives include paying the minimum salaries of Public Transport Authority-registered independent workers in the passenger transport sector, and requiring companies in which the state owns more than 51 percent of the capital to prioritize the local market and direct their offers and purchases to the benefit of small and medium-sized enterprises (SMEs).

- **18 April:** Saudi Agriculture Fund announces action plan worth 2 billion SR (533.3 million USD) to support local food security and production.

- **2 May:** Saudi Finance Minister says the kingdom must "sharply" reduce its budget expenditures, adding all options are open to enforce savings once citizen welfare commitments have been met.

- **2 May:** Approximately 1.2 billion SR (320 million USD) has been distributed to 40,000 Saudi citizens in the private sector affected by COVID-19, citing the General Organization for Social Insurance.

- **2 May:** Social Development Bank's (SDB) aid—which amounts to 9 billion SR (2.39 billion USD)—will benefit 6,000 businesses through a special financing scheme, with a special focus on supporting health care, SPA reports.

- **5 May:** More than 300 contributors are revealed to have added 1 billion SR (266.3 million USD) to the health ministry's Health Endowment Fund.

- **11 May:** Saudi Arabia suspends the cost of living allowance from June and triples the value-added tax (VAT) to 15 percent from 1 July.

- **16 June:** 3.7 billion SR (1 billion USD) stimulus package to support more than 500 small and medium-sized industrial companies affected by COVID-19 launched by Saudi Industrial Development Fund.

- **2 July:** Royal decree issued to extend government initiatives supporting businesses, employees and investors and the private sector. Measures include postponing VAT payments and accelerating reimbursements, and partial exemption from expired residency and iqama fees for an additional month.

- **14 July:** Corporate Sustainability Programme launched by the Ministry of Finance to support the deferment of loan installments for the private sector. The initiative includes deferring loan installments due in 2020 for the health and education sectors. Worth 670 million SR, this deferment covers more than 192 establishments across sectors such as education, health and industry. The initiative also aims to support projects in the education, health and real estate development sectors by accelerating approvals and disbursement of loans and easing requirements.

- **28 September:** King Salman and Crown Prince Mohammed bin Salman approve plan to exempt investors in municipal spaces from paying 25 percent of rental fees.

- **29 September:** General Organization for Social Insurance extends stimulus programme to support salaries of Saudi nationals in companies impacted by COVID-19. The programme originally covered 70 percent of Saudi employees in firms with over five workers and applied to a several activities across the private sector. Initially due to expire in October, the programme will continue until January and support half of all Saudis working in a company still impacted by COVID-19 in sectors including travel, sports and entertainment.

- **30 September:** Saudi Arabia plans to cut government spending over the coming years, according to figures released by the Ministry of Finance in its pre-budget statement for the 2021 financial year.

- **2 October:** Property deals in Saudi Arabia exempted from 15 percent value-added tax, and will instead face a new 5 percent tax on transactions, as part of government measures to shore up the local real estate sector.

- **27 October:** Cabinet approves plan to allocate 500,000 SR (133,340 USD) for families of health workers who have died from COVID-19. The grant will apply to those who worked in both public and private sectors, civilian or military and to all nationalities, and recorded their infection from 2 March onwards.

- **29 November:** Central Bank of Saudi Arabia has extended its deferred payments programme until the end of the first quarter of 2021, supporting private sector financing.

Lebanon

Public health measures

- **8 February:** Education Minister announces closure of all educational institutions from 29 February to 8 March.

- **6 March:** School and university closures extended till 14 March, and gyms, cinemas, theatres and nightclubs closed.

- **9 March:** Lebanese parliament and ministry offices closed for one week.

- **11-12 March:** Restaurants and malls closed in Lebanon.

- **15 March:** President Michel Aoun declares state of medical emergency as country issues decree to close borders with Syria for the first time in about 40 years.

- **15 March:** Beirut International airport closed and 15-day lockdown announced, excluding bakeries, pharmacies, food stores, banks and health institutions. Churches cancel Sunday prayers and Islamic authorities suspend Friday prayers for the next two weeks.

- **21 March:** Prime Minister reportedly deploys "the army, Internal Security, General Security and State Security" bodies to enforce social distancing rules.

- **26 March:** Overnight shutdown from 7pm to 5am planned with some exceptions to be announced later, Information Minister Manal Abdel Samad says.

- **26 March:** Lebanese shutdown extended by two weeks to 12 April.

- **31 March:** Information Minister says system established to allow overseas Lebanese to return home even as country remains in lockdown until 12 April.

- **18 April:** Health Minister says the country will begin mass coronavirus testing next week.

- **25 April:** Government extends restrictions till 10 May and reduces curfew by two hours.

- **3 May:** Seaside promenades reopened with health precaution mandates. Restaurants allowed to resume receiving customers until 9pm, and barbers can reopen salons for pre-booked appointments.

- **5 May:** Lockdown extended by two weeks.

- **6 May:** Lebanon reopens mosques for Friday prayers and churches for Sunday mass provided their capacity does not exceed 30 percent.

- **10 May:** Government mulls full lockdown for 48 hours after a spike in coronavirus cases following an easing of movement restrictions last week.

- **12 May:** Four-day total lockdown announced as cases grow after some individuals flout social distancing rules.

- **18 May:** Country to gradually reopen today after four-day lockdown imposed to curb growing number of cases.

- **18 May:** Reopening gets under way even as nightly curfew from 7pm-5am remains in place, as does the system to allow odd and even number plate cars on the road on alternate days. Restaurants and cafes can open at 50 percent capacity. Swimming in the sea and going to the gym or the park remains banned.

- **22 May:** 'State of general mobilization' extended until 7 June.

- **4 June:** Government has extended its "general mobilization against coronavirus" measures for another four weeks, Arab News reports. The extension is based on recommendations from Lebanon's Higher Defense Council.

- **1 July:** Beirut's Rafik Hariri International airport to reopen in July and public sector employees permitted by Lebanese cabinet to return to work after taking precautionary measures.

- **1 July:** Cabinet extends COVID-19 measures until mid-August to curb COVID-19 cases.

- **27 July:** Health Minister confirms the country will reimpose a two-week lockdown from 30 July.

- **14 July:** Fines ranging from £Leb550,000 to £Leb5m said to have been introduced for individuals not wearing masks.

- **17 August:** Field hospital construction was also approved for north and south Lebanon.

- **18 August:** New lockdown and overnight curfew to be imposed for two weeks from 21 August. The curfew will last from 6pm-6am, and malls will be closed. Restaurants will be restricted to delivery services, and social gatherings will be banned.

- **26 August:** General mobilization extended until 31 December to curb COVID-19.

- **8 September:** Caretaker Interior Minister relaxes coronavirus precautions after end of two-week curfew. The curfew will now last from 6am to 1pm. For the first time since a coronavirus lockdown was implemented in March, cinemas will be allowed to reopen, local newspaper the Daily Star reports. Nightclubs, social event halls, markets and Casino du Liban will also be permitted to reopen.

- **2 October:** Lebanon has put 111 villages and towns nationwide on lockdown for a week. Residents must stay home and wear masks if forced to go out, health ministry says. State institutions and places of worship are to close, but health centres and delivery services are exempt,

- **7 October:** Caretaker Minister of Public Health, Hamad Hassan, reviews condition of Lebanese prisons amid COVID-19 spike. ICU beds will be prepared within 10 days in a government hospital, and capacity will also be expanded in the private sector.

- **11 October:** Interior Ministry shuts bars and nightclubs until further notice and enforces local lockdowns on 169 villages and districts across the country, up from 111 earlier this month. The ministry also underscored the importance of complying with the 1-6am curfew and the use of masks.

- **7 December:** Lebanon has reserved 2 million COVID-19 vaccines from Pfizer to vaccinate about 30 percent of the population free of charge, caretaker Public Health Minister, Hamad Hassan, told Saudi-based Independent Arabia.

Social measures

- **26 March:** Government to distribute 100,000 food and hygiene packages worth LBP18bn to needy families.

- **30 March:** Head of the Association of Lebanese Industrialists, says cleaning supplies, disinfectants and food provided to 30 prisons in the country.

Economic measures

- **22 February:** Economy minister bans export of devices, equipment, or medical personal protective equipment until further notice.

- **26 February:** Head of Lebanese parliament's health committee, says WHO supported establishment of Rafic Hariri University Hospital's quarantine centre and will help set up similar units in Beirut.

- **24 March:** Association of Banks announces decision to provide 6 million USD for medical equipment.

- **17 April:** Prime Minister Hassan Diab allocates 797 million USD to cover the costs of COVID-19 in Lebanon.

- **21 April:** Parliament approves 120 million USD loan from the World Bank to fight COVID-19.

- **17 August:** Minister of Public Health, recommends that the World Bank's 40 million USD financial support to the Lebanese Ministry of Public Health, approved on 12 March, is used to pay private hospitals treating COVID-19 patients.

- **19 August:** UK sends 238,530 pieces of personal protective equipment to help "overstretched hospitals" in Beirut deal with COVID-19 patients.

- **7 December:** Lebanon has signed two 100 million EUR agreements with Germany to support infrastructure reforms in Lebanon and help the country combat COVID-19.

- **16 December:** French Development Agency and International Committee of the Red Cross sign grant to provide 6.1 million USD in additional funding for a project at Rafik Hariri University hospital. The grant is expected to support the centre's COVID-19 response and maintain its capacity to manage the crisis.

Sudan

Public health measures

- **14 March:** The Government approved measures to prevent the spread of the virus which included reducing congestion in workplaces, closing schools and banning large public gatherings.

- The Government declared a public health emergency on **16 March 2020** and closed all airports, ports and land crossings, schools and universities, restricted intrastate public transport and imposed a nightly curfew.

- **March:** Government of Sudan establishes two isolation centres for COVID-19 patients. In addition, military hospitals in Khartoum and in the states are to act as centres for shelter and treatment.

- All festivals, camps and sports events to be cancelled and public gatherings such as weddings are banned.

- **15 March:** As part of the COVID-19 containment measures, schools were closed.

- **16 March:** All points of entry into Sudan have been closed for movement of people and non-essential cargo. Some entry points remain open for the movement of humanitarian supplies. All land borders closed. Sudan extends the closure of airports for international and domestic passenger flights until 15 June 2020. This excludes scheduled cargo, humanitarian aid and technical and humanitarian support flights; airlines operating in the oil fields; and evacuation flights for foreign nationals.

- **March:** The Ministry of Health with support from UNICEF, the World Health Organization and other partners have launched a nationwide risk communication campaign. The aim is to create awareness and mobilize communities on COVID-19 as part of the national risk communication, community engagement and social mobilization efforts, led by the Ministry of Health and UNICEF.

- **18 April:** The Government effected a lockdown in Khartoum State (the epicentre of the outbreak in Sudan) to minimize the spread of COVID-19. Following this decision, several states including North, Central West, South Darfur, White Nile, and Kassala put in place similar containment measures restricting movement. The Ministry of Awqaf (Religious Endowments) has suspended prayers in mosques and church services in the State during the three-week lockdown period.

- **20 April:** The Sudan Civil Aviation Authority (CAA) issued a decision to extend the closure of Sudanese airports for international and domestic flights until 20 May 2020.

- The nationwide curfew was changed from 6:00 pm to 5:00 am and bridges in the capital were re-opened. Travelling between Khartoum and other states is still not allowed and airports will gradually open pending further instructions from the Civil Aviation Authority. Schools and universities will remain closed.

- **12 July:** Work at government institutions started on 12 July, at 50 percent capacity.

- The Government of Sudan has launched a rapid response programme to support the poor in Khartoum's peripheries for the expected three-week duration of the lockdown. The aim is to provide in-kind food assistance to the poorest households to help meet their needs. The scheme is implemented in a whole-of-government and whole-of-society manner, involving diverse public entities, at both federal and state levels, as well as civil society actors, including revolutionary committees and the private sector.

- **8 July 2020:** The government started to ease the lock-down in Khartoum State.

- The Sudanese Ministry of Health announced that 8.4 million doses of the COVID-19 vaccine will be provided to specified target groups. The distribution of the vaccine is planned to take place in the first quarter of 2021, depending on global production and waiting lists.

Social measures

- **July 2020:** The Government of Sudan will implement a Family Support Programme, which will provide support vulnerable families. The Government estimates that 65 percent of the population live below the poverty line and the Family Support Programme will provide direct cash transfers each month to around 80 percent of Sudanese families to support them through the challenging economic circumstances currently facing the country, safeguarding people at risk of slipping into extreme poverty. The multi-ministerial programme led by the Ministry of Finance and Economic Planning (MoFEP), is expected to start in the second half of the year with financing from the Government of Sudan and partners.

Economic measures

- **March 2020:** Federal Ministry of Health develops 76 million USD countrywide COVID-19 preparedness and response plan.

- FMoH—with support from the World Health Organization (WHO)—developed a countrywide preparedness and response plan with a cost of 44 million USD for COVID-19 (coronavirus).

- Domestic private sector has pledged to contribute 2 million USD to help the Government, the Government reallocated 3 million USD and UN and international partners are expected to donate 9 million USD.

- The US Government has also announced a donation of 8 million USD, while the European Union announced a support package of 70 Million EUR.

- **On April 9,** the Islamic Development Bank was also reported to provide 35 million USD to Sudan, while the World Bank has also announced a package of 35 million USD from its Headquarters based trust funds.

- To mitigate the negative impact on households and enterprises, the Government is considering boosting social safety net by increasing direct cash transfer, providing unemployment benefits and delivering basic food baskets to poor families at discounted prices. These measures could cost about 1.5 billion USD in three months.

- There are also reports from the Ministry of Health that 30 billion SDG have been allocated to prevent the collapse of the Sudanese health system and another 20 billion SDG to support the families affected by the lockdown measures in Khartoum.

- **On April 15,** the Government also announced significant increase in the salaries of public sector employees.

- Ministries of Social Development, Industry and Trade and Finance in helping the poor and vulnerable families and alleviating the economic risks that result from the state of total suspension which is necessitated by the health conditions and weakness of the infrastructures in the health field.

- **June 2020:** The Ministry of Finance and Economic Planning (MoFEP) developed a plan to scale up financing to the health sector and provide cash transfers to 80 percent of the population--more than 30 million people--most of them informal sector workers whose livelihoods will likely be affected by the restrictions. Each person will receive 500,00 SDG (around 9 USD) per month, according to the Ministry. In addition, the MoFEP informed it would carry out a civil service salary reform to help those on fixed incomes; cushion the private sector through tax and customs exemptions; and it is also evaluating possible support for exporters and other productive industries affected by exchange rates and depreciation.

Syria

Public health measures

- **20 March:** Damascus says scientific, cultural, social and sporting events will be halted, and public institutions will be closed or staffed at 40 percent of normal levels and operate during reduced hours.

- **21 March:** Education Minister says schools to be closed until 2 April, and Government delays 13 April parliamentary elections to 20 May as Friday prayers at mosques are suspended until 4 April.

- **22 March:** Public transport banned after closure of parks and restaurants, Damascus International airport closed to commercial traffic and newspapers cease print editions.

- **25 March:** Daily curfew between 6pm and 6am takes effect following interior ministry's orders.

- **29 March:** Ban on commuting between provinces and all other urban and rural areas takes effect.

- **29 April:** The Syrian Government says it is extending the nationwide curfew to stem the spread of coronavirus but has eased the tight lockdown by allowing all businesses and public markets to go back to work. The ministerial committee agrees to the opening of all popular markets and all commercial industrial enterprises and services firms.

- **7 May:** Syria postpones parliamentary elections for second time from 20 May to 19 July as preventive measure to curb COVID-19.

- **8 May:** Syria's Government allowed mosques to open for worshipers willing to perform prayers.

- **25 May:** Damascus eases lockdown restrictions to support economic growth, but repatriation flights put on hold as recently returned Syrians are treated.

- As at **26 May**, mosques can open on all days, including for group prayers, so long as physical distancing is observed. Public and private transportation services have also resumed. Universities and institutions are scheduled to reopen on 31 May, and preparations are ongoing for basic education and high school exams in June.

- Restaurants (except for takeaway/delivery allowed from 26 May), cafes and sport halls remain closed, and all social gatherings and events remain suspended.

- **24 June:** Syrian health ministry receives new batch of medical aid from China, including testing kits, protective suits, face masks, goggles and infrared thermometers.

- **16 August:** Ministry of Interior said to issue new regulations for travelers to and from Lebanon. Those entering Syria from Lebanon must present COVID-19 negative test results taken 96 hours prior to their arrival. The decision applies to truck drivers, diplomatic passport holders and aid workers, among other groups. Lebanon-bound passengers from Syria must present test results taken 24 hours prior to their flight.

- **1 October:** Flights out of the Damascus International airport resume after six months of closures.

- **As at October 2020:** Markets, restaurants, cafes, gyms, parks, theaters, cinemas and most leisure facilities remain open, with mandated precautionary measures. Mosques and churches are open, with physical distancing requirements. Public and private transportation services have resumed, as have schools, universities and institutions.

- **21 October:** Health ministry launches campaign to distribute protective clothing and run more frequent COVID-19 testing for healthcare workers as part of measures to curb the spread of the virus. Influenza test kits will also be provided and healthcare workers in direct contact with COVID-19 patients will be tested for antibodies.

- **14 December:** Government meeting chaired by Prime Minister decides to mandate the use of masks on all public transport and decides to close tourist facilities and restaurants that violate precautionary measures against the pandemic. Closures will first be rolled out for 15 days and repeat offenders could be closed for a month. The Government team also instructed governors to not provide licenses for gatherings that could contribute to the spread of the virus and assigned the health, higher education and scientific research ministries to intensify efforts to increase the readiness of public hospitals.

Social measures

- **22 March:** Government plans to deliver bread to homes after closing bakeries and President Bashar al-Assad issues prisoner amnesty.

Economic measures

- **27 March:** UAE offers to support Syria amid COVID-19 outbreak.

- **21 October:** President Bashar al-Assad issues decree approving an exemption on income tax amid tightening economic conditions. The decree covers all public and private sector workers. It exempts those earning 50,000 LS (40 USD) or less a month from paying income tax and reduces the level of taxes paid in the lowest income bracket.

- **24 October:** Syria receives medical assistance from WHO. The shipment, which arrived at Damascus International airport, includes PPE for health workers, medicines and medical supplies.

Tunisia

Public health measures

- **13 March:** Tunisian Prime Minister says Government to suspend prayers in mosques, close cafés at 4pm every day, and ban all cultural, sports and economic gatherings after national maritime borders were closed.

- **31 March:** Tunisia extends lockdown by two weeks to 19 April as 1,420 prisoners released to curb COVID-19.

- **19 April:** Lockdown extended until 4 May.

- **4 May:** Partial easing of lockdowns begins, with reopening permitted for government administrations, public transport and construction projects.

- **13 May:** Curfew hours relaxed to 11pm-5am from 8pm-6am as number of new cases gradually steadies.

- **16 May:** Nightly curfew further relaxed as number of new cases continues to decline.

- **21 May:** Mosques, restaurants and cafés to reopen from 4 June, with universities suspended till at least 8 June.

- **3 June:** Work to resume at 100 percent capacity in public administration offices from 4 June, and mosques, places of worship, hotels and restaurants to reopen as well. Party halls to reopen with enclosed halls to operate at 50 percent capacity and open areas at full capacity with adequate hygiene measures.

- **8 June:** President orders the lifting of the country-wide curfew imposed since mid-March to curb COVID-19.

- **27 June:** Tunisia reopens land, sea and air borders for the first time in more than three months. Some operations restart at Tunis-Carthage airport, with flights to Rome, Geneva and Paris also scheduled to depart.

- **27 July:** New measures announced for arrivals from abroad.

- **8 August:** A legal provision mandating the use of face masks in closed spaces will be issued next week.

- **15 August:** Army medical team of 45 medics and paramedics starts setting up field hospital in El-Hamma. The military hospital team will also establish a mobile microbiology labouratory to conduct 100 COVID-19 tests a day.

- **18 August:** New school year to begin on 15 September. Health protocols for schools and universities will be completed soon.

- **26 August:** Face masks mandated across the country, with violators of mask usage to be fined 1,000-5,000 TD.

- **27 August:** Awareness campaigns targeting pupils and students are scheduled, in addition to sessions for psychological assistance.

- **8 September:** Mobile military microbiology laboratory set up in the governorate of Kébili, southern Tunisia.

- **3 October:** Prime Minister urges compliance with healthcare precautions, adding that normal classes in schools, universities and vocational training institutions will continue. He also announced a ban on all gatherings and public or private demonstrations.

- **5 October:** Sports ministry announces suspension of youth and sports events, as well as official sports competitions and exhibition games, for 15 days, with the possibility of extension if required. National teams must carry out COVID-19 tests and ensure they are negative so as to continue training.

- **5 October:** Minister of Health says 3,000 healthcare staff will be recruited to support public hospitals as part of an exceptional hiring drive. The ministry plans to establish 12 COVID-19 units, with 20 beds each, in addition to field hospitals. Ventilator-equipped bed numbers are to be raised three-fold to 1,200 by the end of October, with ventilator beds to increase from 150 to 700 in the private sector during the period. ICU beds dedicated to COVID-19 patients will increase from 95 to 220 in the public and 100 to 200 in the private sectors. Eight isolation centres, each with the capacity for 5,000 people, will open in seven governorates. If additional centres are required in a governorate, then the accommodation costs will be borne by the Government.

- **7 October:** Curfew approved for Greater Tunis from 9pm to 5am from Monday-Friday and 7pm to 5am on Saturday-Sunday. The curfew will run until 23 October. Friday prayers are on hold and restaurants and cafés may only operate for take-aways, but schools and social institutions will operate as usual. Separately, the Ministry of Education has created a mobilization team to conduct daily inspection visits to schools.

- **5 December:** Director of the Pasteur Institute of Tunis and member of the Scientific Committee on the Fight against the Coronavirus, announces that 6 million doses of a COVID-19 vaccine will be purchased from an international laboratory by the end of the second quarter of 2021.

- **6 December:** Nationwide curfew in Tunisia has been extended to 30 December. A night curfew will be applied from 8pm to 5am on 7-30 December, according to a statement released by the Tunisian Health Ministry. The measures also include the continuation of the ban on fairs and meetings and the closure of cafes at 7pm. Authorities have also decided to restrict attendance at private parties and funerals to 30 people.

- **15 December:** Two million doses of the COVID-19 vaccine will be made available by US pharmaceutical corporation Pfizer, starting from the second quarter of 2021. The health ministry has signed an agreement to buy this quantity at a price of 7 USD a dose. The vaccine will be available free of charge in Tunisia, with frontline workers and at-risk individuals to be prioritized.

Economic measures

- **15 March:** Ministry of Finance asks citizens for donations to help tackle coronavirus.

- **17 March:** Tunisian central bank cuts its key interest rate by 100 basis points and Government reduces growth forecast for 2020 from 2.7 percent to 1 percent.

- **22 March:** Fakhfakh unveils 2.5 billion TND package to delay tax debts, postpone taxes on small- and medium-sized businesses, delay repayment of low-income employee loans and provide financial assistance to poor families.

- **28 March:** EU grants Tunisia 279.2 million USD to contend with COVID-19 after IMF plans to disburse 400 million USD to help the country face the effects of the crisis.

- **1 April:** Tunisian banks will suspend the distribution of 2019 dividends and allow customers to defer loan payments for three months as part of a package to ease the social and economic effects of the coronavirus, the central bank said.

- **7 April:** Donations sought to fund 250 intensive care beds to be placed in a sports hall in the capital as country tries to ramp up medical facilities in response to the coronavirus.

- **11 April:** Tunisia secures 745 million USD IMF loan to contend with COVID-19.

- **1 May:** World Bank approves 20 million USD in healthcare assistance for Tunisia.

- **5 May:** Tunisian banks have lent the Government 1.2 billion TND (413 million USD) in foreign currency to tackle coronavirus crisis.

- **6 May:** Tunisia approaches NATO for in-kind medical aid to support its fight against the novel coronavirus and to contain the outbreak.

- **20 May:** EU council approves 657.3 million USD loan for Tunisia.

- **3 June:** Arab Monetary Fund grants 59 million USD loan facility to Tunisia. A second loan is also being considered to support reforms in the financial and banking sector.

- **16 June:** World Bank approves disbursement of 175 million USD to support anti-coronavirus efforts as part of the Emergency Development Policy Operation.

- **23 June:** France to loan Tunisia 396 million USD to deal with crisis caused by COVID-19.

- **13 July:** Tunisia is negotiating delaying its debt repayments with Saudi Arabia, Qatar, France and Italy, and plans to arrange a new deal with the Washington-based IMF in four months.

- **21 July:** World Bank says international support package with macro-financial assistance from the EU for Tunisia will total 600-700 million USD this year. The World Bank has approved 175 million USD to support the reform package.

- **23 November:** Financial subsidies for the agriculture sector will increase by 17 percent in 2021 compared to this year. Subsidies for the sector will total 324 million TD in 2021.

UAE

Public health measures

- **22 March:** Passenger flights grounded for two weeks from 25 March.

- **21-23 March:** Malls, food markets and restaurants closed.

- **24 March:** Dubai International airport says passenger flights to and from the UAE – including inbound, outbound and transit – will now be suspended from 11:59pm on 24 March instead of 26 March, as was previously planned.

- **24 March:** Dubai Chamber urges private sector to implement remote working, and Dubai Crown Prince invites volunteers to support city-wide efforts during COVID-19.

- **26 March:** Ministry of Human Resources and Emiratization limits private sector companies' in-office workforce to 30 percent as Federal Authority For Government Human Resources announces remote working for all public sector organizations from 29 March.

- **28 March:** Interior Ministry extends National Disinfection Programme and accompanying movement restrictions until 4 April

- **28 March:** Department of Health – Abu Dhabi and Abu Dhabi Health Services Co (Seha) launch drive-through screening for COVID-19.

- **29 March:** UAE Attorney-General issues updated resolution on enforcement of list of fines, penalties ranging 1,000-50,000 AED to curb the spread.

- **29 March:** Metro, tram and marine taxi services' suspension extended until 5 April, Dubai's Roads and Transport Authority says, and Sharjah extends suspension of all activities until end of April.

- **30 March:** Physical attendance in schools and universities cancelled and distance learning to continue until the end of the 2019-20 academic year, education ministry announces.

- **3 April:** Ministries of health and interior extend national disinfection programme launched on 26 March, with each emirate to draw up and implement its own plans for the sterilization drive that restrict outdoor movement between 8pm and 6am.

- **4 April:** Dubai's Roads and Transport Authority suspends Dubai Metro and Dubai Tram.

- **4 April:** Abu Dhabi Department of Economic Development (ADDED) extends temporary closure of commercial centres, shopping malls, cinemas, electronic game halls (arcades) and other entertainment destinations in Abu Dhabi until further notice.

- **4 April:** Dubai's Supreme Committee of Crisis and Disaster Management extends national sterilization programme to 24 hours a day for two weeks, subject to renewal.

- **5 April:** Dubai Free Zones implement remote working and federal authorities launch initiative for private sector employees wishing to return home while the UAE implements precautionary measures to curb COVID-19.

- **7 April:** UAE Cabinet approves formation of Supreme National Committee for Volunteerism During Crises as part of measures to combat COVID-19.

- **7 April:** Dubai Health Authority expands its medicine home delivery service to cover all of the UAE, and Department of Health – Abu Dhabi licenses pharmacies to make home deliveries in the capital city.

- **9 April:** Abu Dhabi Health Services Company opens 13 drive-through COVID-19 testing centres.

- **9 April:** UAE announces suspension of prayers in all places of worship across the country until further notice.

- **10 April:** 129 violators of quarantine measures referred to attorney general.

- **15 April:** Dubai's Department of Tourism and Commerce Marketing extends the shutdown of hotel establishments, floating restaurants, social venues and other event venues until further notice.

- **15 April:** Field hospital with capacity of up to 3,030 beds to be created within Dubai World Trade Centre.

- **17 April:** Dubai's Supreme Committee of Crisis and Disaster Management extends sterilization programme by a week.

- **19 April:** Group of 20 researchers, scientists and engineers assembled to produce vital medical equipment to combat COVID-19.

- **23 April:** Abu Dhabi Department of Municipalities and Transport (DMT) starts 48-hour sterilization of public bus services.

- **24 April:** RTA says to resume Dubai Metro and public bus services from 26 April as Supreme Committee of Crisis and Disaster Management announces partial easing of restrictions on movement in Dubai. Outdoor movement curbs limited to 10pm to 6am, and movement without prior approval permitted during remaining hours. Malls and restaurants allowed to reopen at 25-30 percent of capacity, but mosques' reopening delayed.

- **28 April:** National endowment fund to combat diseases and aid epidemiological research launched by Awqaf and Minors Affairs Foundation and Mohammed bin Rashid University of Medicine and Health Sciences.

- **29 April:** Travel between the emirates is allowed as long as residents are off the roads and indoors between 10pm and 6am, Dubai and Abu Dhabi police said, according to the National.

- **1 May:** The General Headquarters of Abu Dhabi Police is continuing its anti-coronavirus awareness campaign in the emirate's industrial areas. The campaign aims to distribute face masks among workers in their workplaces and accommodation camps and raise awareness of precautionary measures such as the proper use of gloves and adhering to social distancing protocols.

- **2 May:** Abu Dhabi Municipality disinfects 41 shopping centres in Abu Dhabi as part of the National Disinfection Programme.

- **2 May:** Ministry of Human Resources and Emiratization (Mohre) conducts 560 inspection visits to ensure compliance by private establishments with the precautionary measures imposed to curb COVID-19. The inspections measured compliance with social distancing rules in workplaces, workers accommodations and transportation, as well as health procedures such as the availability of non-contact temperature thermometer devices, minimizing the number of workers to not more than 30 percent of the facility's capacity, and avoiding gatherings and social events.

- **6 May:** Abu Dhabi Department of Economic Development issues a reminder to shopping mall owners and managers about ensuring full compliance to precautionary measures as their facilities reopen. Non-compliance may see mall owners fined up to 10,000 AED and the facility closed.

- **9 May:** Ministry of Education says distance learning system for all educational levels will remain effective until the end of the current academic year, and a decision for the academic year 2020-21 is still under review.

- **10 May:** Abu Dhabi Police conducts campaign to disinfect COVID-19 ambulances and non-emergency transport vehicles.

- **12 May:** Trams and maritime transport including the Dubai Ferry, water taxis, both traditional and air-conditioned abras, and car sharing services can resume operations according to timelines specified by the Roads and Transport Authority (RTA).

- **12 May:** Supreme Committee of Crisis and Disaster Management in Dubai allows the refund and return of goods and use of fitting rooms at shopping malls and retail outlets, with previous precautions remaining in place. Public parks opened as well, but gatherings may not exceed five people. Hotels are allowed to reopen their private beaches only to their guests while enforcing stringent preventive measures, the most important of which is mandatory physical distancing between individuals. Sports and recreational activities will be permitted in open spaces for up to five people, including cycling, water sports and skydiving.

- **13 May:** Abu Dhabi opens field hospital in Al-Razeen.

- **17 May:** Ajman Tourism Development Department issues guidelines for hotels to safely reopen, including the restriction of occupancy to no more than 30 percent, temperature checks and the banning of re-usable items such as leaflets, magazines, newspapers and cups.

- **18 May:** Disinfection programme timings extended by two hours from 20 May. Malls and commercial centres may operate from 9am-7pm, with revised timings to be announced after Eid al-Fitr. Penalties raised for violations of government-issued precautions.

- **20 May:** Disinfection to begin two hours earlier in industrial areas.

- **25 May:** Dubai to gradually resume business activity from today. Businesses allowed to operate between 6am and 11pm, and cinemas, gyms, retail stores, clinics, sports academics and recreational venues can open provided they follow social distancing rules. Malls can remain open until 10pm and must operate at 70 percent capacity.

- **28 May:** UAE Government announces 30 percent of federal ministry employees will work from offices starting 31 May, with exemptions to be made for high-risk individuals.

- **30 May:** National Disinfection Programme timings amended to 10pm-6am in all emirates except Dubai.

- **31 May:** Abu Dhabi raises mall capacity and the capacity of restaurants within malls to 40 percent. Hotel beaches, restaurants outside malls, and museums are also allowed to reopen with a capacity of 40 percent, but public beaches remain closed.

- **5 June:** National Emergency Crisis and Disaster Management Authority issues safety and hygiene advisories for hotel establishments prior to their reopening.

- **21 June:** Dubai airports may receive tourists from 7 July, provided travelers can present a recent COVID-19 negative test result or undergo testing at the airport.

- **23 June:** China National Biotec Group approved to conduct large-scale Phase 3 clinical trial of its COVID-19 vaccine candidate in the UAE.

- **24 June:** Curbs on night-time movement lifted as sterilization programme is completed.

- **3 July:** UAE citizens and residents are now able to travel. Travel will only be permitted if the individual receives a negative COVID-19 result.

- **3 August:** Health ministry, represented by the Fujairah Medical Zone, opens two COVID-19 testing centres in Umm Dibba and Fujairah Exhibition Centre.

- **5 August:** Ministry of Health and Prevention to start the world's first phase three clinical trials of an inactivated vaccine to combat COVID-19.

- **11 August:** Mohammed bin Rashid Medical Research Institute, the UAE's first independent biomedical research centre, is launched. The facility seeks to conduct research to address the COVID-19 pandemic and other viral diseases. It has been established with an initial investment of AED300m and is part of Al-Jalila Foundation.

- **28 August:** Mothers with children in grade six and below or those with children of determination are permitted to work remotely from home so that they can monitor and take care of their kids during the e-learning classes, the Federal Authority for Government and Human Resources says.

- **1 September:** Ministry of Education and the National Emergency Crisis and Disaster Management Authority revert some schools to online learning after suspected COVID-19 cases were detected during tests conducted prior to physical classes.

- **7 September:** UAE cabinet, chaired by Vice President and Prime Minister of the UAE and Ruler of Dubai, approves National Policy on Vaccinations.

- **29 September:** Frontline staff of Sharjah International airport receive their first dose of the COVID-19 vaccine.

- **3 October:** Ministry of Presidential Affairs, in coordination with the National Emergency Crisis and Disaster Management Authority, announces the re-opening of the Sheikh Zayed Grand Mosque both in Abu Dhabi and Fujairah as well as the Founder's Memorial in the UAE capital.

- **4 October:** National Emergency Crisis Disaster Management Authority (NCEMA) forms seven inspection teams, one to be based in each emirate, to crack down on those failing to adhere to the strict coronavirus precautionary measures.

- **15 November:** Sharjah Economic Development Department reopens wedding and event halls as part of the gradual plan for the return of economic and social activities in the emirate. Precautionary measures to be followed include wearing face masks and gloves, adhering to a 2 metre social distancing policy, and ensuring that attendance levels do not exceed 50 percent of a venue's capacity.

- **14 December:** UAE launches vaccination drive in Abu Dhabi after approving the drug developed by China National Pharmaceutical Group (Sinopharm).

Economic measures

- **12 March:** Dubai announces 1.5 billion AED stimulus package.

- **14 March:** Central Bank pledges 100 billion AED to economic growth.

- **16 March:** Abu Dhabi introduces 5 billion AED stimulus package.

- **22 March:** UAE cabinet approves additional 16 billion AED to support infrastructure projects.

- **22 March:** Dubai banks offer financial relief measures.

- **26 March:** UAE cabinet agrees to form national committee to study COVID-19's negative economic impact as local stimulus packages total 126.5 billion AED.

- **26 March:** Central Bank directs banks to replenish ATMs with new banknotes to ensure cash availability during the latest payment cycle.

- **1 April:** Dubai Economy launches daily price tracker for staple food and essentials to curb price manipulation.

- **2 April:** Sharjah Charity International provides financial and in-kind support worth 7.5 million AED to families affected by COVID-19, of which 2 million AED is dedicated to the UAE's anti-coronavirus fund.

- **5 April:** Minister of Economy, says during cabinet meeting that local stimulus packages provided so far have a combined value of 126.5 billion AED, and ministry officials in charge of the national small- and medium-enterprise (SME) programme are working to reduce business costs for small firms.

- **5 April:** Ministry of Energy and Industry, says 500 food and beverage plants registered with the ministry are currently operational to meet the domestic and export demand, and 70 other facilities will supply the medical sector with equipment, medicine, solutions and medical gases such as oxygen.

- **6 April:** Ras Al Khaimah Tourism Development Authority unveils support package, including a six-month waiver of all touristic licenses, a waiver of tourism dirhams from March to May, and exempting tourism licensing fees for the second and third quarters and tourism licensing fines until 30 September.

- **8 April:** Sheikh Ammar bin Humaid al-Nuaimi, Crown Prince of Ajman and Chairman of the Executive Council, announces a second package of economic incentives focused on sectors including foreign trade, customs, tourism and real estate.

- **12 April:** Ministry of Economy reduces fees for 94 services, including those related to innovation, business activities, investment, production, trade and import and export activities.

- **14 April:** Federal Tax Authority announces exceptional one-month extension to tax period. Excise tax registrants are required to file two separate tax returns, one each for March and April 2020, and settle the total amount due for both months by 17 May 2020.

- **15 April:** Dubai International Financial Centre (DIFC) offers three months of base rent relief to retailers at Gate Avenue, Gate Village and Gate District.

- **20 April:** Dubai Economy fines seven traders, including three pharmacies, for tampering with face mask prices.

- **20 April:** Mohammed bin Rashid Housing Establishment processes 47 requests to waive citizens' mortgages installments, worth 17.7 million AED in total.

- **22 April:** Dubai World Trade Centre Authority launches support package, including penalty waivers for event cancellations, rent cancellations for tenants impacted by COVID-19, payment deferment packages for start-ups and SMEs, fast-tracked vendor payments and 50-70 percent rebates on license and registration fees for free zone tenants.

- **14 May:** Dubai Customs launches stimulus package, including a refund of 20 percent on the customs fees imposed on imported products sold locally in Dubai from 15 March to 30 June; the cancellation of the 50,000 AED bank guarantees or cash required to undertake customs clearance activity; refunds of bank guarantee or cash paid by existing customs clearance companies and existing guarantees of clearance companies.

- **9 August:** Sharjah Entrepreneurship Centre (Sheraa) and CE-Ventures distribute more than 700,000 AED to 11 startups in the retail, real estate, financial technology, travel and tourism, agriculture, education, technology and creative sectors.

- **16 November:** Central Bank of the UAE extends applicability period of Targeted Economic Support Scheme (Tess) until 30 June 2021. The economic stimulus package was launched in March to support relief measures in the banking sector. The central bank will extend the duration of the 50 billion AED, zero-cost facility for retail and corporate banking customers for six months. From 1 January 2021, banks and finance companies participating in the Tess scheme will be able to provide new loans and facilities to customers impacted by COVID-19 in the UAE.

Yemen

Public health measures

- **14 March:** Yemeni Cabinet cancels flights to and from the country's airports for two weeks, and orders school closures for one week.

- **17 March:** Sports events suspended, and judiciary suspends activity in the courts.

- **23 March:** Saudi Arabia airlifts critical WHO medical equipment and supplies to Yemen, including personal protective items for health workers, and trauma medication and supplies as Yemeni Government reportedly suspends schools and universities until 30 May.

- **24 March:** WHO's representative in Yemen tells Arab News the organization is "scaling up preparedness and response efforts in the event a case is confirmed" as 500 COVID-19 testing kits are delivered to Sanaa and Aden.

- **30 March:** UN calls to release prisoners to avert "nationwide coronavirus outbreak".

- **1 April:** More than 470 inmates freed to contain coronavirus.

- **11 April:** Authorities in the southeast Yemen province of Hadramout move to curb COVID-19 in the port city of Al-Sheher by imposing further measures, where the country's first case was announced on 10 April. A curfew from 6pm to 6am has been imposed in all cities of the province, and Hadramout governor has urged residents to comply with the measures and stay indoors as much as possible.

- **10 April:** Yemen's Ministry of Religious Endowment in Aden said mosques will be closed to mass prayers as well as Quran lessons, after Yemen's first case is announced. Partial curfew and 14-day worker quarantine is imposed at Al-Sheher port, and the adjacent province of Al-Mahra has sealed off its entry points.

- **4 May:** Public areas including government buildings, markets and mosques to be sprayed with disinfectant as local authorities move to curb COVID-19.

- **7 October:** UNICEF says primary schools have reopened following months of closures. Preventive sanitary measures have been implemented and school schedules have been rearranged to avoid overcrowding.

- **11 November:** Kuwait Relief Society donates 15 intensive care units (ICUs) to Yemen. The units will be distributed to eight quarantine centres in six governorates, and include supplies of oxygen, monitoring devices, beds, protection materials and respirators.

Economic measures

- **23 March:** Yemeni planning minister says the World Bank and the International Finance Cooperation have allocated 26.7 million USD to help Yemen tackle COVID-19.

- **4 April:** Yemen to receive 26.9 million USD from the World Bank to battle pandemic.

- **8 April:** United Nations humanitarian response plan for Yemen in 2020 to include 500 million USD from Saudi Arabia and another 25 million USD to combat the spread of COVID-19.

- **10 April:** WHO's Yemen representative, says the organization has provided 500 testing kits and dedicated 37 health care facilities as isolation units.

- **21 April:** International Initiative on COVID-19, comprising multinational companies, says first 34-tonne shipment to reach Yemen next week, and contains 49,000 virus collection kits, 20,000 rapid test kits, five centrifuges and equipment that would enable 85,000 tests, and 24,000 COVID-19 nucleic acid test kits.

- **2 June:** International donors pledge 1.35 billion USD in aid for Yemen. Saudi Arabia's contribution totals 500 million USD, with the UK offering 200 million USD and Germany contributing 140 million USD.