



**UNITED NATIONS
KUWAIT**

**KUWAIT NATIONAL
RESPONSE TO COVID19**
REVIEW OF POLICIES & PRACTICES



**COVID-19
RESPONSE**



**United Nations
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United for Peace, Rights and Development for All

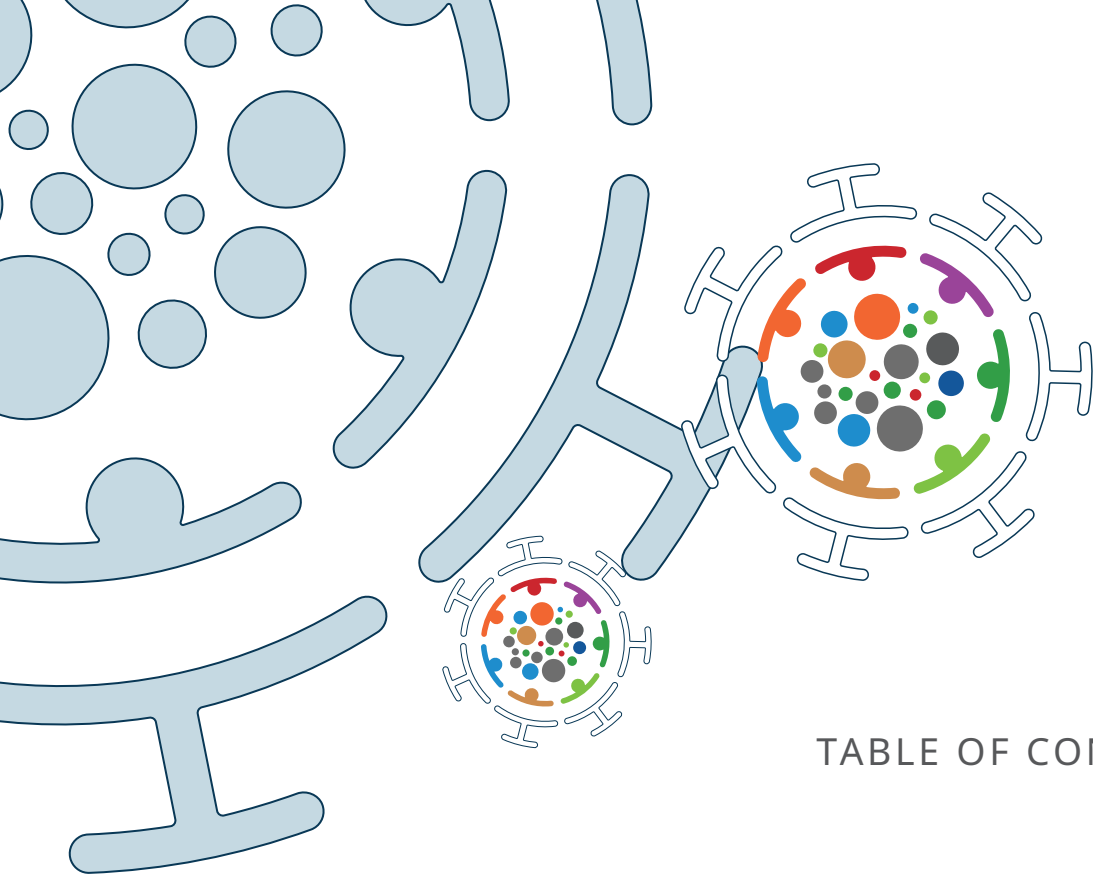


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FORWARD & ACKNOWLEDGEMENT

Presented by The United Nations Secretary-General Representative & the Resident Coordinator in Kuwait

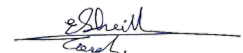
The breakout of Covid-19 was nothing like any other matter that faced the world. Yet, still, it casts its impact on humanity, where no country, institution, or company was spared of its direct and indirect consequences and effects. The institutions and the various sectors of the State of Kuwait were affected, including the health, social, economic, and entertainment sector. However, it is worth noting that with the beginning of the crisis in early March 2020, the readiness of the State of Kuwait, its institutions and its predictive capabilities for future challenges were extraordinary and its readiness with plans, programs, teams, and committees to deal with the crisis contributed to preventing the spread of the epidemic.

The significant role that was implemented by the system of cabinet committees, the National Assembly, civil society, and the private sector in a coordinating structure through the Council of Ministers under the leadership of His Highness Sheikh Sabah Al-Khaled Al-Hamad Al-Sabah, Prime Minister, had a vital and essential impact in containing the epidemic by all means.

The supply chain in the country was efficiently maintained with goods, food, and medicine as it supports the economic entities affected by the lack of employment, closure, and low demand. This report prepared by the United Nations in the State of Kuwait, the Office of the United Nations Secretary-General Representative, and the Resident Coordinator (RCO) highlight the outstanding efforts of all Kuwait's institutions.

Presenting the Kuwaiti national response system indicators to the Covid-19 pandemic with sincerity and impartiality, which concluded the efficiency and objectivity through a scientific evaluation of the national policies and procedures taken by the various committees and state institutions of all categories.

While we present to the Kuwaiti society and those interested in an objective reading of Kuwait's experience in dealing with the Covid-19 pandemic, I'm honored to thank the front-line workers who dealt with the crisis from (government, civil society, the private sector, and the National Assembly), as well as to our national partners and the Ministry of Foreign Affairs for the facilities provided to the United Nations. Furthermore, to facilitate the tasks of our agencies in supporting the efforts of the state. Also, the national development partner, the General Secretariat of the Supreme Council for Planning and Development, and colleagues in the office of the RCO who are responsible for preparing this report, especially Batoul Dawi, Public Health Officer, and Regina Orvananos, previously responsible for the data and reports, as well as the World Health Organization colleagues for their technical review of the report. In addition, the Department of International Cooperation at the Ministry of Health for their continuous cooperation with the United Nations and its agencies.



Dr. Tarek Azmy El-Sheikh

*The United Nations Secretary-General Representative
and the Resident Coordinator in Kuwait*

EXECUTIVE SUMMARY

COVID-19 is an unprecedented health crisis that poised Kuwait's executive branch, in its multiple arms, to demonstrate its preparedness for rapid cooperation in crisis management and mitigation. This document utilizes WHO's COVID-19 Strategic Preparedness and Response Plan and its nine public health response pillars to reflect on the functional capacities of Kuwait's public health and emergency response systems; capitalizing on critical opportunities for collective learning and improvement. A tenth pillar has been included covering vaccination policies with reference to diverse policies that pertain to cross-cutting issues and humanitarian aid.

⁽¹⁾ <https://www.who.int/publications/m/item/covid-19-strategic-preparedness-and-response-plan-operational-planning-guideline>

COUNTRY-LEVEL COORDINATION, PLANNING AND MONITORING

Kuwait's government was swift in enacting multisectoral policies through the activation of a whole-of-government Corona Emergency Ministerial Committee.

In its current form, the committee is chaired by the Deputy Prime Minister and Minister of Defence with the multiple relevant ministries including health, commerce, interior, foreign affairs and urban development engaged to provide a coordinated management response to the COVID-19 pandemic over cross-cutting issues such as education, economy, food security and repatriation of Kuwaiti nationals, healthcare and domestic workers trapped abroad. The central coordination mechanism was effective in engaging the private sector and existing CSOs and NGOs such as the Red Crescent Society, Co-ops and local volunteers to aid national efforts in their rapid response and scale-up of essential services in cities and urban settings. Crucially, members of the committee were supportive of the Minister of Health's, at times, stringent recommendations which resulted in swift and early closure of schools, non-essential businesses and places of gathering.

On the public front, transparency over decisions pertaining to phasing, diagnostics, treatment and prevention was high, ensured by orders from the National Assembly and steered by the MOH's Kuwait International Health Regulations Center which maintains direct communication with the World Health Organization's International Health Regulations instrument (Figure 2).

Towards this end, the annual budget for ministries and governmental agencies increased by KD 500 million for the fiscal year 2020/2021. The Central Bank of Kuwait and local banks also contributed with KD 10 million to establish a fund that supports the government's efforts in fighting the coronavirus. This is in addition to a temporary COVID19 relief fund set up by the Cabinet to receive contributions from individuals, and institutions².

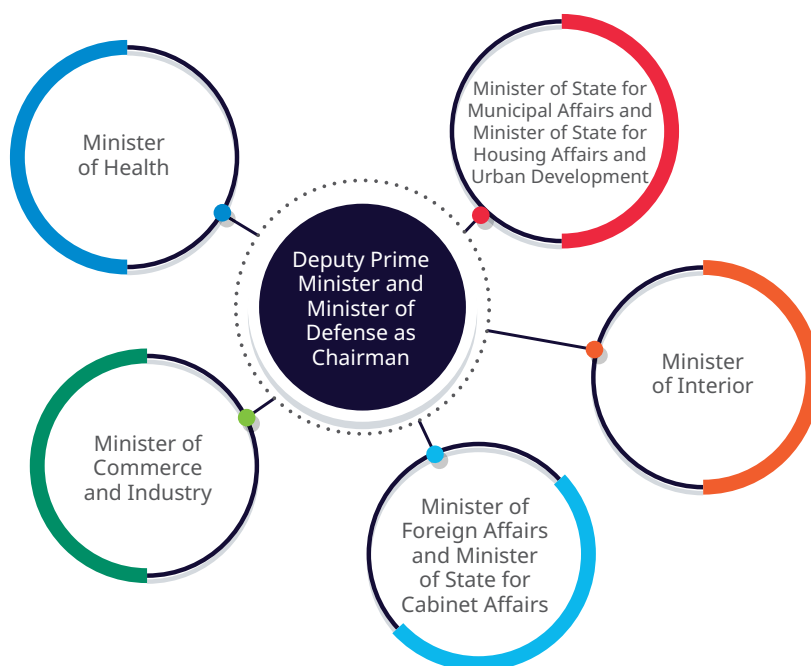


Figure 1: 2021 Corona Emergency Ministerial Committee

⁽²⁾ <https://www.kuna.net.kw/ArticleDetails.aspx?id=2879475&language=en>

⁽³⁾ <https://bit.ly/3zhSkif>

⁽⁴⁾ <https://www.kuna.net.kw/ArticleDetails.aspx?id=2880748&language=ar>

⁽⁵⁾ <https://bit.ly/3vnXpmp>

⁽⁶⁾ <https://bit.ly/3xiC0fl>

⁽⁷⁾ <https://bit.ly/2RVFHcc>

⁽⁸⁾ <https://bit.ly/3zrYMUm>

⁽⁹⁾ <https://bit.ly/2TvqhMg>

ما هي اللوائح الصحية الدولية؟

هي مجموعة من اللوائح الملزمة قانونياً هدفها إعانة الدول على العمل المشترك لحماية الأرواح من تهديدات انتشار الأمراض والمخاطر الإشعاعية والكيميائية.

خمس أسباب تجعل من اللوائح الصحية الدولية ذات أهمية عالية

5 تدعم جميع قطاعات الدولة تعمل على رفع القدرات الفنية الأساسية والتنسيق والتواصل ومشاركة المعلومات.	4 تضع المخاطر تحت المراقبة اليومية تعمل على اكتشاف وتقييم المخاطر والإبلاغ عنها بشكل سريع.	3 تعزز الأمن الصحي العالمي تنشئ نظام الإنذار المبكر للتحذير ولمواجهة أي طارئ مستجد يهدد صحة السكان وحياتهم.	2 تؤمن التجارة والسفر تدعم القوانين الدولية للتجارة والسفر وتمنع وقوع الأضرار الاقتصادية.	1 المخاطر الصحية لا تعرف الحدود الأمراض تعبر الحدود عن طريق المنافذ البرية والبحرية والجوية
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تكون الدولة مستعدة لمواجهة المخاطر وبالأخص الغير متوقعة فقط عندما تسخر جميع قطاعات الدولة إمكانياتها لتطبيق اللوائح الصحية الدولية.



المركز الوطني لتطبيق اللوائح الصحية الدولية

وزارة الصحة
مكتب الإعلام الصحي



Figure 2: What are International Health Regulations? Image reprinted from MOH media office; Translation: International health regulations are a legally binding international agreement which aims to support countries to work together to protect lives from threats associated with international spread of disease, nuclear and chemical risks. Five reasons to underscore the importance of IHR include: 1) Health risks know no borders 2) Protection of trade and travel 3) Promotion of international health security 4) Enforces international monitoring and surveillance 5) Supports all national sectors.

Kuwait National Assembly

In its capacity as the legislative arm, the Kuwaiti parliament monitored the public and social measures issued by the government³ and showed readiness to adopt necessary legislation⁴. Members of parliament regularly questioned the executive branch over cross-cutting issues such as mental health services and public health safety in the agriculture sector, correctional facilities and prisons; ensuring that vulnerable populations are at the fore of control measures. Other topics raised included privacy concerns over data usage in digital tracing applications⁷ and out-of-pocket payments incurred by citizens and residents as a result of containment measures.

Legislation passed and/or amended in response to the coronavirus pandemic included:

1. Law No. 4 of 2020 to amend Article No. (17) of Law No. (8) of 1969 pertaining to health precautions to prevent communicable diseases. Violators face a imprisonment for no less than 3 months and/or 5,000 KD in fines. In the event that violation results in transmission of the virus to others, perpetrators face imprisonment for no less than 10 years and/or a fine of 30,000 KD (Figure 3).

ثقافة قانونية

وزارة الصحة
الإعلام الصحي

في حال مخالفة قرارات حظر التجول الجزئي المفروض في البلاد لمواجهة جائحة كوفيد-19، والصادرة وفقاً لأحكام القانون رقم 8 لسنة 1969 وتعديلاته :

يكون للجهات الأمنية القائمة على تنفيذ الحظر ضبط المخالف وإحالتهم للجهات القضائية، ويطبق عليه أحكام الفقرة (1) من المادة (17) المعدلة بالمادة الأولى من القانون رقم 4 لسنة 2020، وتكون العقوبة الحبس مدة لا تتجاوز ثلاثة أشهر وبغرامة لا تزيد على خمسة آلاف دينار، أو بإحدى هاتين العقوبتين.

باعتبار القرارات المنظمة لحظر التجول من القرارات المنفذة للقانون رقم 8 لسنة 1969 بشأن الاحتياطات الصحية للوقاية من الأمراض السارية وتعديلاته.

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KUWAIT, MOH
www.moh.gov.kw

Figure 3: MOH media post promoting legal literacy in the case of violation of public health measures.

2. Law on protection from domestic violence which sets conditions for the legal framework to protect victims of domestic violence and preserve the unity of the family and society. The law puts in place institutional mechanisms to follow cases of domestic violence, ensuring the proper orientation of victims to resources and services, whether legal, medical or rehabilitative. One article stipulated the formation of a national committee with membership from the relevant governmental agencies and civil society organisations to draft policies that address domestic violence with the family. Another article stipulated the establishment of shelters for victims of domestic violence that would complement the child protection centers and be affiliated with the Supreme Council for Family Affairs. The law empowers the Minister of Social Affairs to grant judicial authority to specialized teams of social and psychological workers to trace and investigate cases of domestic violence. Cases where children have been assaulted will be followed by the Child Protection Centers of the Supreme Council for Family Affairs.

3. Law No.6 of 2020 to postpone financial obligations, consumer and instalment loans at local banks, investment companies and financial firms overseen by the Central Bank. Provisions of this law are subject to conditions set by the Central Bank. The instalment period covers a period of 6 months from the instalment due date, extensions may be extended upon the approval of concerned entities. The law also covers entities overseen by the Ministry of Finance including the Family Fund and Defaulters Fund which will constitute separate mechanisms for activation. Funds to implement this law were taken from the State's Public Treasury. Whilst direct fiscal measures were not common amongst the government's anti-COVID19 considerations, some packages targeting individuals and SMEs were introduced (Figure 4).

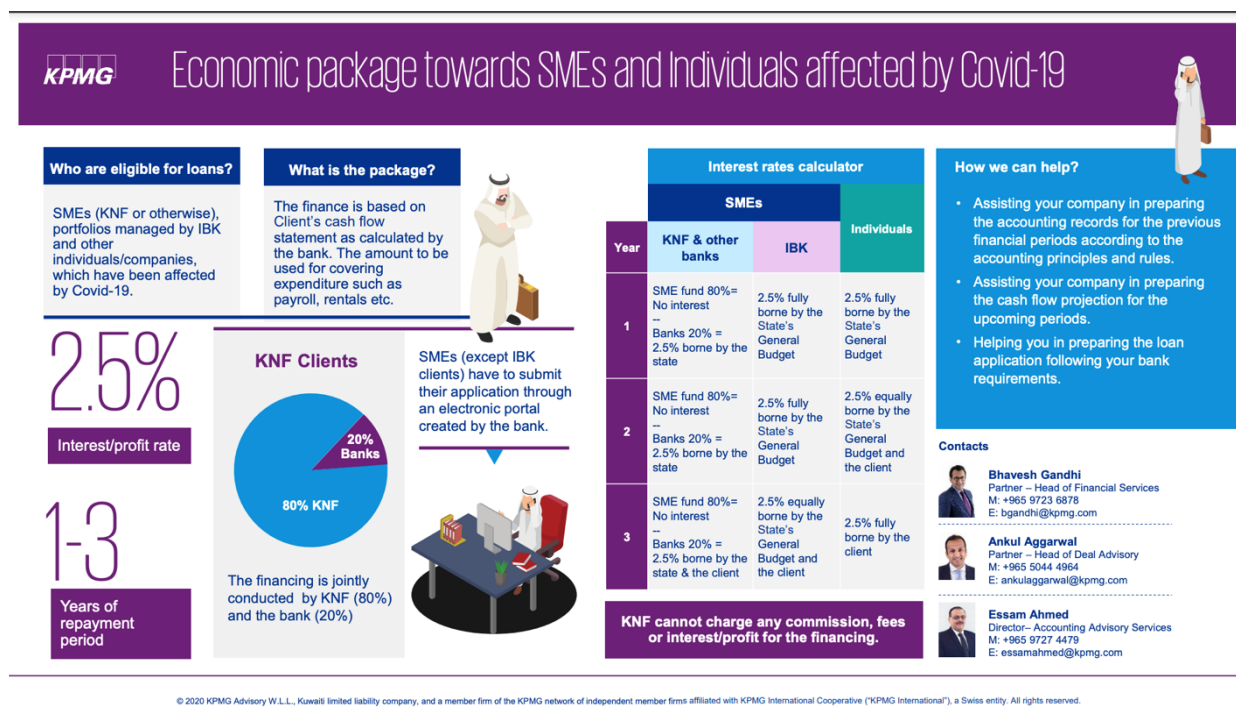


Figure 4: Economic packages for SMEs and individuals; reprinted from KPMG

Private Sector

Private companies across multiple sectors coordinated with governmental entities to aid in responding to the pandemic. Kuwait Oil Company (KOC) supported Jaber hospital with a fully equipped COVID19 ward at Al-Ahmadi Hospital during the first surge in cases. This was followed by an extensive operation to deliver a number of quarantine centers to support containment measures. Indeed, KOC's Ratqa quarantine center north of the country admitted 564 repatriated students, 172 health personnel and an estimated 7992 migrant workers following zonal lockdowns. The Kuwait Field Hospital (KFH) and Vaccination Center based at the International Fairgrounds Halls 4,5,6 and 8 were other major products of KOC's organised coordination with MoH jointly with Kuwait Integrated Petroleum Industries Company (KIPIC) (Figure 5). Notably, the Kuwait Scouts Association played a memorable role in these missions when it offered KOC its spring camp facilities to be converted into quarantine centers after deploying 70 young volunteers to clean and sterilise them (Figure 6)¹⁰



Figure 6: Volunteers sterilising the Spring Camp facilities at Kuwait Scouts Association; Image reprinted from Scouts.org



Figure 5: Site of the Kuwait Field Hospital at Mishref International Fairgrounds. Image reprinted from kockw.com special issue (February 2021) on KOC's efforts in fighting the COVID-19 pandemic.

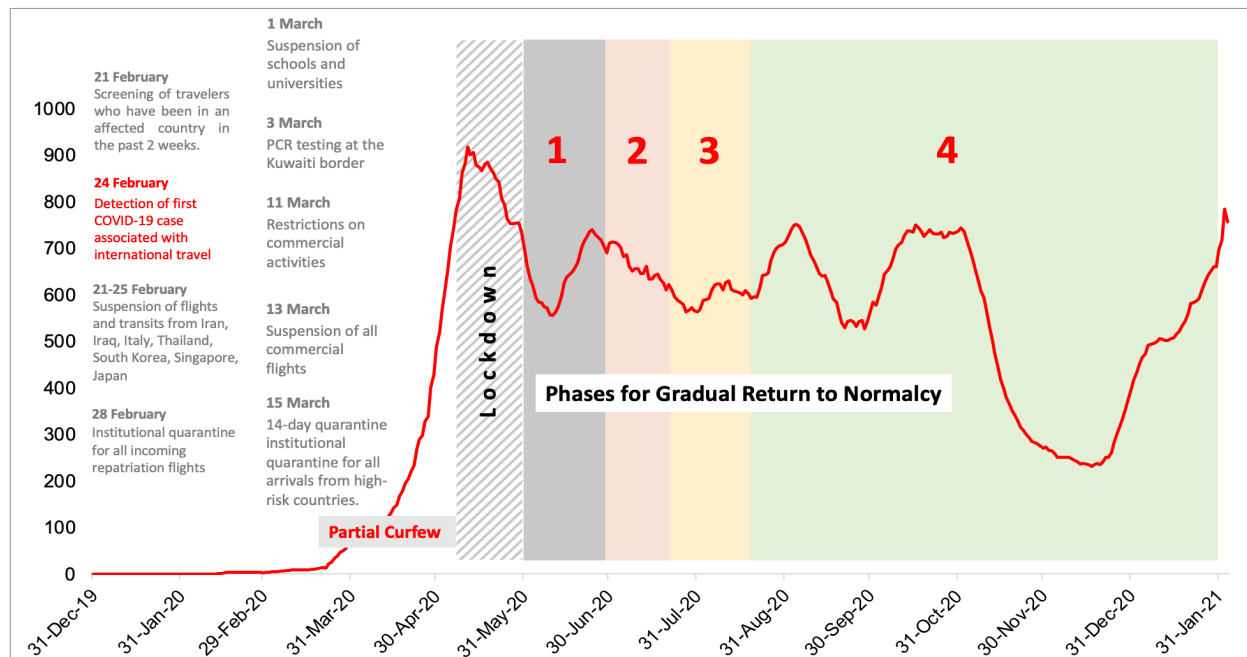
⁽¹⁰⁾ <https://www.scout.org/node/584538>

CONTAINMENT POLICIES

Telecommunications companies heeded the government's call for rapid digitization across all sectors; contributing with innovative applications of myriad functionalities such as the Shlonik app developed by Zain and the Central Agency for Information Technology (CAIT) to deliver digitized solutions for contact tracing and surveillance purposes. Similarly, between 22nd March 2020 and 20th April 2020, Ooredoo Telecom responded to the government's lockdown measures with a public information campaign under the slogan 'Be Safe. Be Home. Be Online' which was accompanied with a month of free 5GB internet and calls.¹¹ These responsive initiatives demonstrate a meaningful corporate social responsibility strategy that is aligned with the United Nations principle to leave no one behind.

Border screenings, risk-based travel bans, contact tracing and institutional quarantine (Figure 7) were amongst the immediate policies that significantly slowed down the importation of cases early on in the outbreak in Kuwait.

The Kuwaiti Mobile ID, Hawiyati, issued by the Public Authority for Civil Information was implemented by private sector entities overseen by the Central Bank of Kuwait¹² in addition to telecommunications companies¹³ as a secure digital modality for the verification of identities during transactions, a collaborative step from the private sector to expedite the government's strategic efforts in steering the wave of digitization in the country.



⁽¹¹⁾ <https://www.ooredoo.com.kw/portal/en/throughthickandthin>

⁽¹²⁾ https://www.cbk.gov.kw/ar/images/covid-steps-and-measures-154523_v10_tcm11-154523.pdf

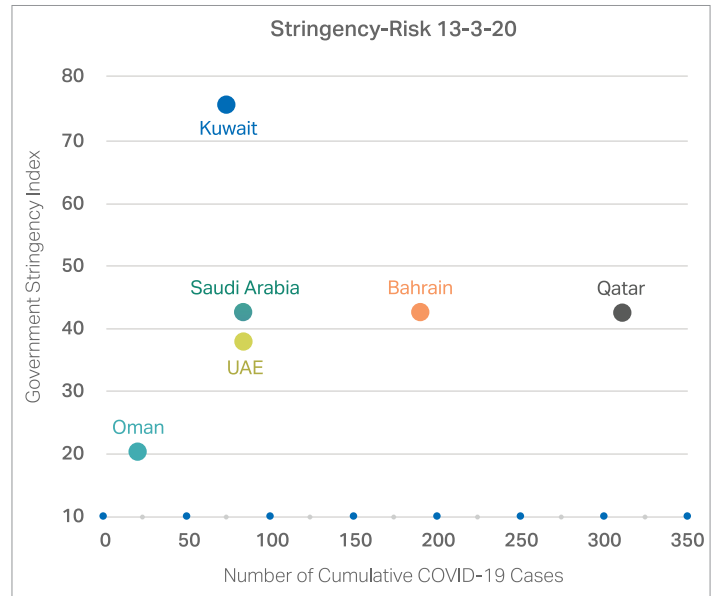
⁽¹³⁾ <https://news.kuwaittimes.net/website/zain-implements-kuwait-mobile-id-app-for-digital-identity-verification-in-branches/>

Figure 7: A Timeline of Kuwait Public and Social Measures Against The Covid19 Outbreak

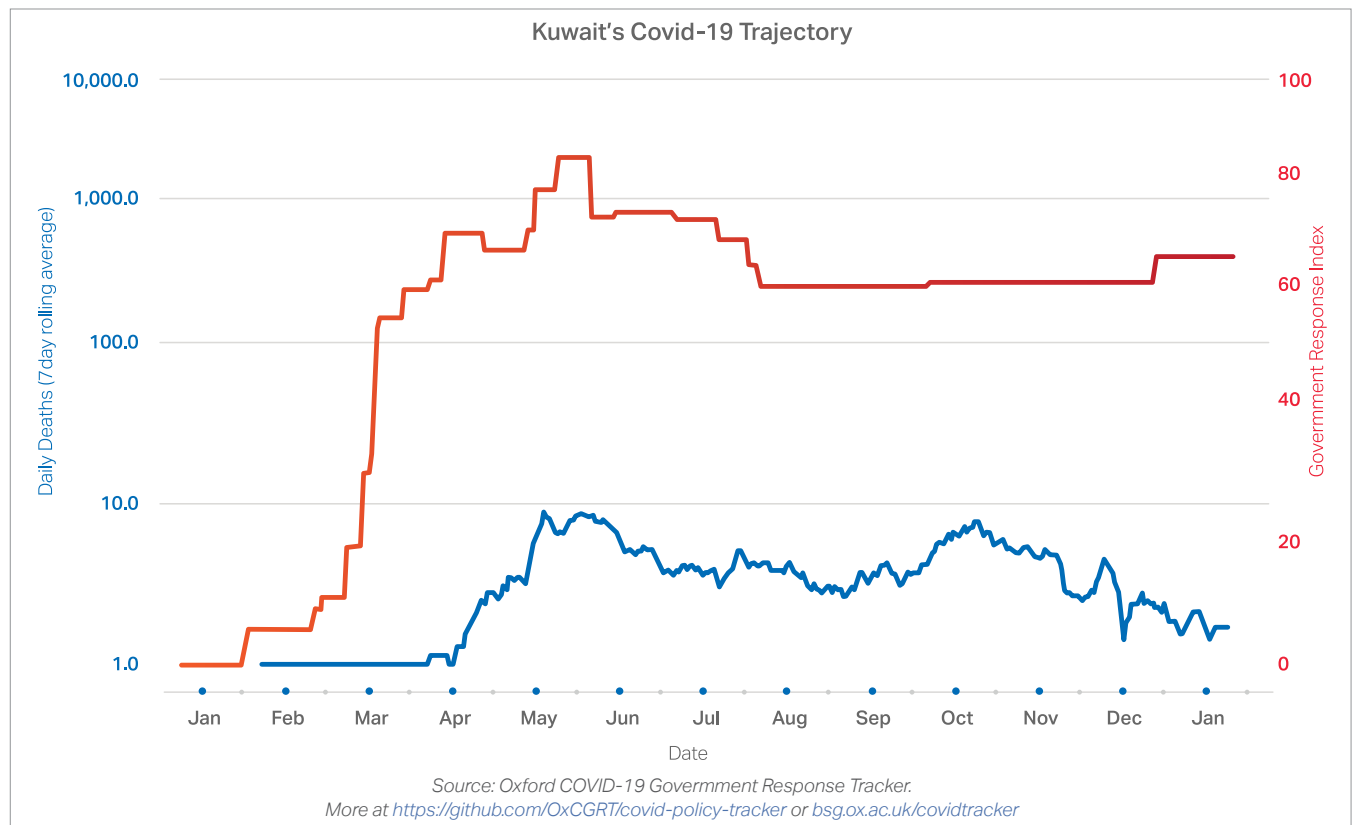


The University of Oxford's Coronavirus Government Response Tracker captured the response of the government over the course of the outbreak through publicly available information on 19 indicators that pertain to containment and closure policies, economic policies and health system policies. The overall government response index reflected high proactive stringency that preceded peak community transmission (Figure 8).

The high stringency in adopted short-term measures such as partial and full lockdowns implemented in March and April, 2020 allowed the health system to build response capacity ahead of country reopening. This likely contributed to significant containment of disease burden early in the outbreak as shown by evidence of a negative association between the number of days to lockdown and the number of detected cases per million (Chaudry et. Al, 2020).



b. Figure 8: 1. Kuwait Government Response Index and 2. GCC Country Stringency Index



a.

Logistical capabilities were scaled up rapidly with the assistance of the national guard, fire department and other entities such as the Central Agency for Information Technology (CAIT). MoH also coordinated with Public Authority for Civil Information (PACI)¹⁴ to update residents' residential information on their databases to ensure health services and vaccine allocation initiatives were dedicated to priority groups first. The rich data infrastructure and technical capacities available to PACI also allowed infection/quarantine history and vaccination status to be later linked to the civil identification number and thus electronic records at primary and tertiary health centers.

The health authorities planned a series of gradual measures that were contingent to the epidemiological scenario, and which were publicized in a plan of gradual return to normalcy constituting of five phases (Table 1).

Epidemiological targets were regularly shared with the public to inform them and showcase the role of shared public responsibility. These targets included:

1. R0 value
2. Flattening the curve of new cases
3. Decline in ICU occupancy
4. Decline in COVID19 bed occupancy
5. Decline in percentage positivity

	PHASE 1 (31/5/20)	PHASE 2 (21/6/20)	PHASE 3 (12/7/20)	PHASE 4 (2/8/20)	PHASE 5 (23/8/20)
Operational Functions	Essential services (groceries, laundries, gas, maintenance, garages, shipping, food delivery, café drive through)	P1 + construction and building sector, banking, commercial complexes, parks and public spaces, restaurants for takeaway	P2 + Friday prayers, social care facilities, taxis (single passenger), mosques, hotels and resorts	P3 + Restaurants for dine-in and public transport with physical distancing	P4 + beauty parlours, gyms, weddings, graduations, cinema, sporting clubs and other mass gatherings
Workplace Capacity	In-person attendance for work that cannot be completed remotely	Less than 30%	Less than 50%	More than 50%	More than 50%
Zonal Lockdown	Farwaniya, Khaitan, Hawally, Maidan Hawally, Mahboula, Jleeb	-	-	-	-
Curfew	6 pm - 6 am	9 pm - 6 am	-	-	-

Table 1: Operational functions reintroduced and workplace capacity for the 5 Phases of return to normalcy

⁽¹⁴⁾ https://www.zawya.com/mena/en/life/story/Kuwait_Health_Ministry_coordinates_with_PACI_to_update_data_on_expats_info-SNG_190015550/

THE NATIONAL LABORATORY SYSTEM

Kuwait activated an extensive test-treat-isolate plan through Polymerase Chain Reaction (PCR) testing as soon as cases were detected by rolling out diagnostic testing at the border in addition to testing of arrivals and suspected contacts. The daily publicized case reports reflected adequacy of PCR testing capacities with testing levels consistently exceeding 1/1000/ population/week throughout the outbreak (Figure 9).

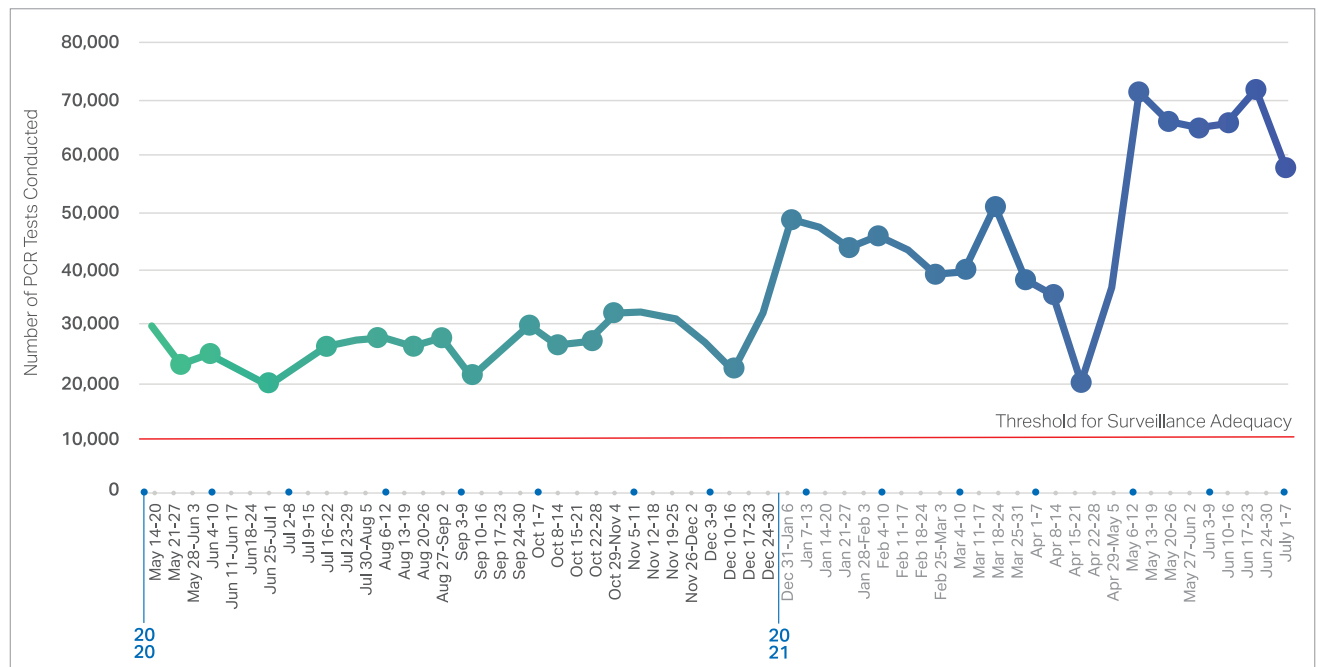


Figure 9: Kuwait consistently meets testing rates adequate for surveillance.

Testing capacity was crucial in assessing the extent of viral spread and in implementing an efficient test-trace-isolate-support strategy. Indeed, comprehensive provisions were rapidly mobilized for PCR testing of symptomatic patients at the emergency department of hospitals and asymptomatic contacts at drive-thru testing stations in the Jazeera Airways Park n' Fly testing facility, Jaber Al-Ahmad Stadium and the Sabhan testing facility (Figure 9).

The national testing capacity was protected against interruptions in commercial swab supply with the innovative efforts of responsive, multidisciplinary teams at the Ministry of Health, Kuwait University and Dasman Diabetes Institute who worked with colleagues at McGill University Health Centre and The Montreal Children's hospital to design 3D-printed polyester-tipped swabs that were of high sensitivity and specificity for nasopharyngeal case identification. Testing for vulnerable groups was also available through mobile home-testing services to limit any risk of nosocomial infections.

During Phase 1 restrictions, a campaign targeting random samples of the population was also initiated as part of a surveillance population-wide program (Figure 10). This campaign also allocated PCR testing (Figure 11) from frontline workers engaged in essential services such as staff operating co-ops and gas stations in addition to critical care staff in primary health centers and special needs clinics.

إعلان

فرق المسح الميداني COVID-19



استكمالاً للجهود الوقائية للمنظومة الصحية، واستكمالاً لعمليات الترميد النشط في الفحص، وذلك لتقييم الوضع الوبائي المجتمعي بعناية ودقة، بدأت فرق المسح الميداني الصحية بأخذ المسحات المخبرية (أنف/بلعوم) عبر الزيارات المنزلية للمناطق السكنية والنمذجية، وذلك بواسطة الاختيار العشوائي.

- الرجاء التأكد من هوية العمل تابعة لوزارة الصحة.
- الإختيار يكون بشكل عشوائي في المناطق السكنية والنمذجية حسب جداول معدة مسبقاً.
- الرجاء التعاون مع الفرق الطبية.

الزيارات المنزلية ستكون من الساعة 5 مساءً حتى 11 مساءً

جميع المناطق السكنية والنمذجية في جميع المحافظات بشكل عشوائي



www.moh.gov.kw



وزارة الصحة
Ministry of Health



مكتب الإعلام الصحي
Health Media Office

Figure 10: An announcement on the public health surveillance team's randomized visits to residential areas between 5 pm and 11 pm; reprinted from MOH media twitter account.

خدمة صحية جديدة



وزارة الصحة
الإعلام الصحي



مركز الفحص السريع بالمركبات - صباحان
فحوصات مخبرية (PCR) خاصة بمرض كوفيد-19

- طاقة استيعابية تصل لـ 1000 مراجع يوميًا
- فحص المخالطين للحالات الإيجابية ولكل من يرغب بعمل الفحص
- يوميًا من الساعة 5:30 مساءً
- حجز موعد الفحص عبر الموقع الرسمي لوزارة الصحة:
www.moh.gov.kw

www.moh.gov.kw

www.moh.gov.kw

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Figure 11: Kuwait's drive-thru testing center at Sabhan opens at 5:30 AM daily with a testing capacity of 1000/day

RESEARCH & KNOWLEDGE SHARING

The Kuwait foundation for the Advancement of Sciences (KFAS) released a special Call for Proposals to enable the research community to respond to the pandemic. KFAS is a quasi-private sector entity established by an Amiri decree and which extends the corporate social responsibility of private sector companies through investments into research, capacity building initiatives, science communication and public private partnerships for innovation. The Special Call was part of a series of initiatives under the organization's Emergency Resilience Program. The program encompassed initiatives under public health, education, business environment and civil society, and was allocated a budget of KD 10,000,000.

With the evolution of the pandemic and the scaling up of capacities, clinical research teams within tertiary hospitals were engaged in trials that culminated in the approval of a reliable, noninvasive saliva-based diagnostic test currently implemented in Al-Sabah Hospital and Al-Razi Orthopedic hospital (Figure 12).

Local research teams at Dasman Diabetes Institute and the Ministry of Health were also active contributors to the Global Initiative on Sharing All Influenza Data, a global database that allows scientists around the world to share genomic sequences of SARS-CoV-2, thus shedding light on the Kuwait SARS-CoV-2 phylogenetic clades and its potential implications (Figure 13). The teams also participated in research on the genetic determinants of adverse outcomes following infection in the global COVID-19 Human Genetic Effort consortium.



Saliva specimens for detection of severe acute respiratory syndrome coronavirus 2 in Kuwait: A cross-sectional study

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ARTICLE INFO	ABSTRACT
<p>Keywords: SARS-CoV-2 Nasopharyngeal swab Saliva RT-PCR COVID-19</p>	<p>Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and represents a global pandemic affecting more than 26 million people and has claimed >870,000 lives worldwide. Diagnostic tests for SARS-CoV-2 infection commonly use nasopharyngeal swabs (NPS). As an alternative specimen, we investigated the potential use of the real-time reverse transcriptase PCR (RT-PCR) detection of SARS-CoV-2 in saliva samples in large suspected-COVID-19 patients in Kuwait.</p> <p>NPS and saliva samples pairs were prospectively collected from 891 COVID-19 suspected patients in Kuwait and analyzed using TaqPath™ COVID-19 multiplex RT-PCR.</p> <p>Of the 891 patients, 38.61 % (344/891) were positive for SARS-CoV-2, 4.83 % (43/891) were equivocal, and 56.56 % (504/891) were negative with NPS by RT-PCR. For saliva, 34.23 % (305/891) were positive for SARS-CoV-2, 3.14 (28/891) were equivocal, and 62.63 % (558/891) were negative. From 344 confirmed cases for SARS-CoV-2 with NPS samples, 287 (83.43 %) (95 % CI, 79.14–86.99) were positive with saliva specimens. Moreover, the diagnostic sensitivity and specificity of RT-PCR for the diagnosis of COVID-19 in saliva were 83.43 % (95 % CI: 79.07–87.20) and 96.71 % (95 % CI: 94.85–98.04 %), respectively. An analysis of the agreement between the NPS and saliva specimens demonstrated 91.25 % observed agreement (κ coefficient = 0.814, 95 % CI, 0.775–0.854).</p> <p>This study demonstrates that saliva can be a noninvasive specimen for detection of SARS-CoV-2 by RT-PCR.</p>

Figure 12: Abstract for national study investigating a noninvasive technique to detect SARS-COV-2

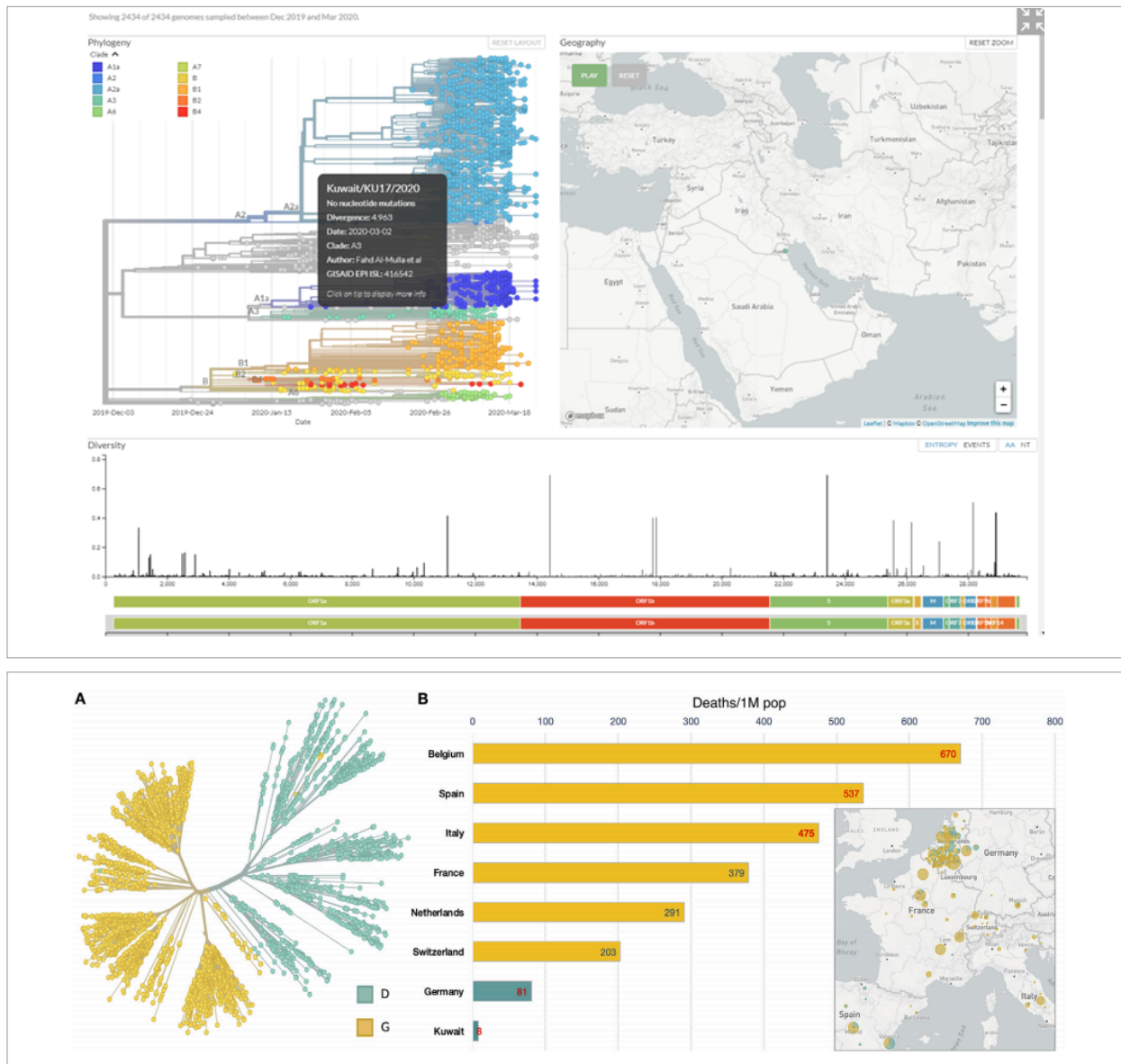


Figure 13: Kuwait SARS-CoV-2 genetic sequences imported by DDI's team into GISAID and associated local phylogenetic clades; Reprinted from <https://doi.org/10.1016/j.jiid.2020.05.071>

Between March 2020 and July 2020, Kuwait¹⁵ was one of 30 countries which participated in the WHO Solidarity Therapeutics trial consortium conducted over 405 international hospitals with the aim of evaluating the major outcomes of repurposed antiviral drugs (Remdesivir, Lopinavir, Hydroxychloroquine and Interferon -beta 1a) on overall mortality, initiation of ventilation and duration of hospital stay in hospitalized COVID-19. Participating countries and hospitals contributed financially to the implementation of the trial in addition to adhering stringently to trial

protocols and procedures, engaging with a cloud-based Good Clinical Practice-compliant clinical data management system for data entry, upholding research ethics and informed consent practices and importantly a exercising a collaborative spirit. Together these elements established an inclusive global platform that allowed clinicians to accumulate worldwide information and recruit enough patients in order to answer pressing public health questions in challenging times.

⁽¹⁵⁾ <https://www.kuna.net.kw/ArticleDetails.aspx?id=2891220&language=en>

⁽¹⁶⁾ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov/solidarity-clinical-trial-for-covid-19-treatments/interim-results>

OPERATIONAL SUPPORT & LOGISTICS IN THE MANAGEMENT OF SUPPLY CHAINS AND THE WORKFORCE

Hospital Bed Capacity

The national hospital system surged in response to increased demand, allocating a significant proportion of beds to COVID-19 patients at general and field hospitals (Table 2) (Figure 14). New emergency wards were set up in record time at AlAmiri, Mubarak, Adan and Farwaniya hospitals as part of extraordinary measures to cope with the coronavirus outbreak. The department of Engineering Affairs and Projects at the Ministry of Health together with the Ministry of Defense oversaw the construction of expanded facilities and ensured their readiness to receive patients.

Hospital Name	COVID-19 Beds	Total Beds
Al-Jahra	642	1988
Al-Farwaniyah	436	828
Al-Adan	379	882
Al-Amiri	236	840
Al-Sabah	377	610
Mubarak Al-Kabeer	304	718
Jaber Al-Ahmad	1032	1032
KFH	1200	1200
Al-Mahboulah	100	100
Al-Jileeb	86	86
Tadhamun	200	200

Table 2: COVID19 beds across hospital wards in the country



Figure 14: Geographic spread of expanded hospital bed capacities.

Health Workers

The number of skilled health personnel per 1000 in Kuwait meets and exceeds WHO's threshold of 3.45 (Figure 15). However, whilst this meets the expected standards in the context of universal health coverage, increases in hospitalizations during the COVID-19 outbreak placed the health system under great pressure. This must also be underscored in light of the country's heavy reliance on expatriate health workforce which may have contributed to shortages in operational capacities at critical phases of the outbreak (Figure 16). Indeed, 65% of estimated 95,173 expatriates currently (2020) employed in the Kuwaiti public sector are based at the Health and Education ministries¹⁷.

The Directorate General of Civil Aviation organized a number of chartered flights to facilitate the return of expatriate health workers trapped abroad soon after the first wave of the pandemic. Following the operationalization of commercial flights, this was extended to all MOH staff and their first-degree relatives.

Shortages in medical staff were also addressed with the expedited recruitment of skilled medical professionals from Pakistan¹⁸ which occurred over stages, adding over 1,000 personnel to the national health workforce¹⁹. These trends in expatriate employment were unlike those felt in other sectors such as construction (-12.9%), real estate (-6.3%), manufacturing (-6%) and hospitality (-3.4%)²⁰ where major job losses were felt.

As cases overwhelmed the national ICU capacity, the health authorities signed a memorandum of understanding with the Cuban government which facilitated the arrival of a health delegation consisting of 300 specialized ICU doctors and nurses who assisted in responding to the spike in critical cases over 6 months up until May 2021.

(17) <https://gulfbusiness.com/more-than-83500-expats-left-kuwait-in-q4-2020-report/>

(18) <https://bit.ly/3icM1GK>

(19) <https://bit.ly/3piH8Oc>

(20) <https://news.kuwaittimes.net/website/kuwait-population-falls-to-below-4-7m-as-expatriate-numbers-drop/>

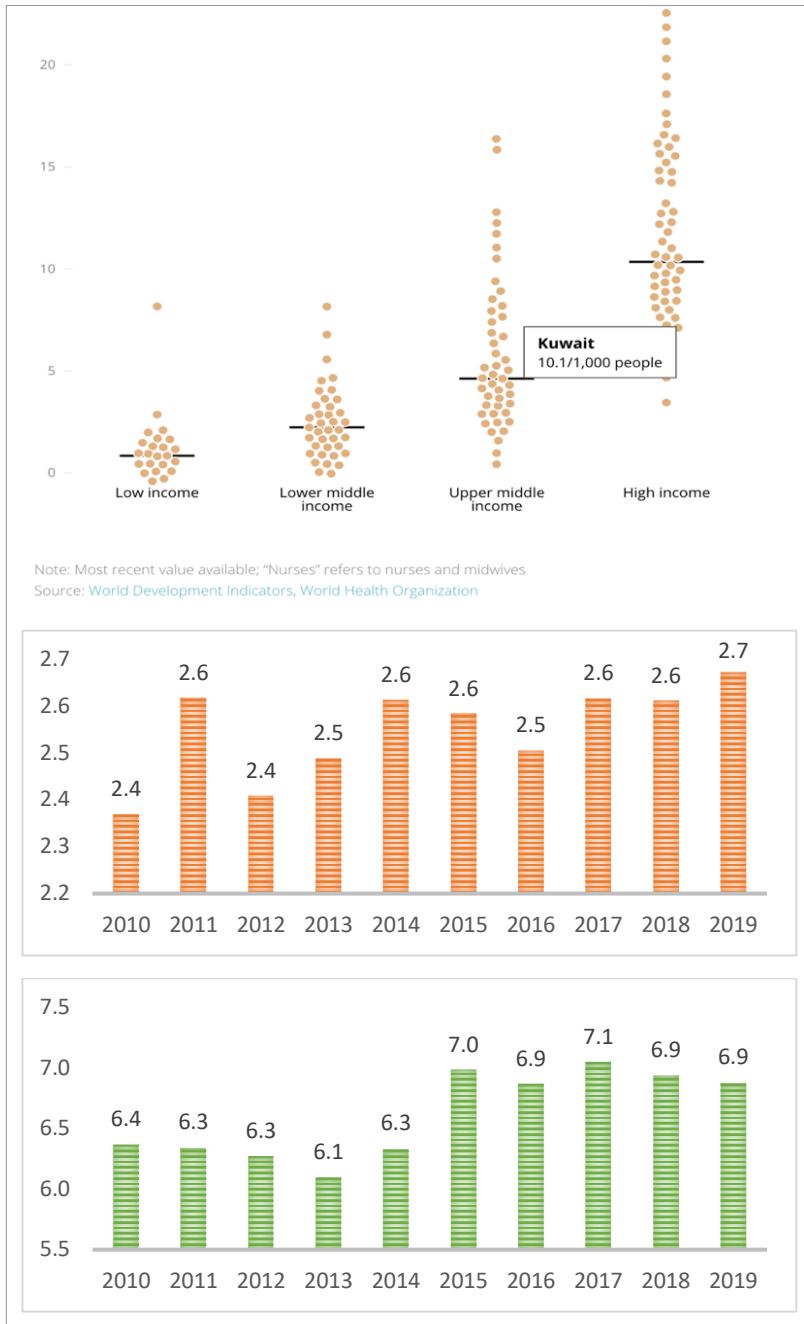


Figure 15: Nurses and physicians per 1,000 for different level income countries; Image reprinted from SDG Atlas b) Physicians per 1,000 population in Kuwait c) Nurses per 1,000 in Kuwait; Statistics from PACI

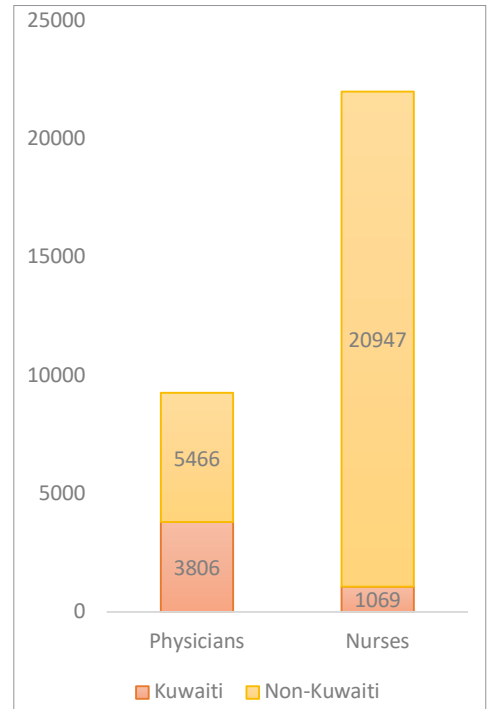


Figure 16: Number of physicians and nurses in the public sector disaggregated by nationality

MAINTAINING ESSENTIAL HEALTH SERVICES DURING THE COVID-19 OUTBREAK

Successful responses to COVID-19 have been defined in terms of a country's resilience and capacity to live with COVID-19; telemedicine/virtual clinics were adopted during the outbreak to ensure continuity of essential health services whilst 10 healthcare centers (2/governorate) were ring-fenced for COVID19 procedures. Health services were continuously prioritized across the various phasing plans and a re-initiation ambulatory care checklist was mobilized to ensure that key infection prevention measures are in place at all healthcare facilities operating non-COVID procedures. Outpatient clinics returned in a step-wise manner from 30% following the full lockdown in May to 50% in July. Better triage was ensured at all health facilities to avoid exposure of health personnel and patients to COVID-19. These technical updates and action plans were communicated to the public in the daily medical conference by Ministry of Health medical professionals in an easy to understand, visual presentation which contributed to enhancing trust in governance and a sense of safety to re-approach health services if needed.

Partnerships between public and private hospitals were rapidly forged to facilitate the necessary provisions to separate COVID from non-COVID procedures as illustrated in the swift transfer of the Children's hospital at AlAdan to the private Kuwait Hospital and the transfer of some Mubarak Hospital services to the International Clinic.

Ministry of Health specialists worked with traditional media modalities, such as newspapers and radio, in addition to social media platforms, to address parents on the importance of prioritizing their child's immunization schedules, in particular the first dose of an immunity protocol. Routine immunization and vaccination campaigns (Figure 17) were sustained throughout the pandemic in addition to awareness campaigns such as that for early breast cancer screening to avoid morbidity as a result of health service disruption.



البرنامج الوطني للكشف المبكر عن أمراض الثدي
بدولة الكويت



وزارة الصحة
الإعلام الصحي

البرنامج الوطني للكشف المبكر عن أمراض الثدي
بدولة الكويت

ندعوك لعمل فحص الماموجرام الآن في أحد المراكز التالية:

- مركز خيطان الجنوبي الصحي
- مركز شيخان الفارسي وزوجته
- شريف العوضي الصحي بمنطقة السرة.

لحجز موعد اتصلي الآن
24620989

خلال أوقات الدوام الرسمي أو عن طريق التطبيق (KNMSP)

المراكز الأخرى تم تخصيصها لحالات كورونا مؤقتا وسوف يتم الإعلان عن عودة العمل في هذه المراكز عند الانتهاء من الأزمة إن شاء الله

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وزارة الصحة
الإعلام الصحي

23 التطعيمات

الفئات الواجب تطعيمها بطعم الأنفلونزا الموسمية

أ. مادة الأسبرين و/أو الكورتيزون من عمر 7 أشهر إلى 18 سنة من العمر.

ب. المرضى باحتلال الجهاز العصبي الذي ينتج عنه اختلال بكفاءة الرئة.

ج. العاملون بالقطاع الصحي الحكومي والعسكري والأهلي.

د. العاملون و نزلاء دور الرعاية الصحية والاجتماعية وحالات العجز الشديدة.

هـ. المسنين ممن هم فوق 70 سنة فما فوق.

و. الحجاج والمعتمرين.

ز. المرضى بأمراض الدم المزمنة.

ح. المرضى المصابين بنقص المناعة بأواعها أو يخضعون للعلاجات الميضية للمناعة.

ط. المرضى باختلال وظائف الكلى المزمنة.

ي. المرضى باختلال وظائف الكبد المزمنة.

ك. مرضى الأورام خاصة أو من تحت العلاج الكيميائي أو الإشعاعي.

ل. مرضى زراعة الأعضاء.

م. مرضى السكري.

ن. مرضى تحت العلاج المستمر

1. الأطفال من عمر 6 شهور إلى خمس سنوات.

2. السيدات الحوامل في أو من يتوقعن الحمل خلال موسم الأنفلونزا.

3. الأشخاص ممن يعانون من سمنة مفرطة.

4. العاملات بالحضانات الاتي يتعاملن مع الأطفال أقل من 5 سنوات.

5. مخالطي الحالات المرضية المؤكدة.

6. المرضى المصابين بأمراض القلب المزمنة.

7. المرضى بأمراض الرئة والربو والحزاز التنفسي المزمنة.

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Figure 17: Announcement from the National Programme to promote early screening for breast cancer; b) Priority groups eligible for flu vaccine

RISK COMMUNICATION AND COMMUNITY ENGAGEMENT

The Ministry's official social media platforms were mobilized to quell any myths and rumors that may be of detriment to public health and leadership efforts. Media accounts were mobilized to clarify misconception via live streams and interviews and daily posts (Figure 18). This was implemented in a time-sensitive manner and violations were tied to strict legal implications.



Figure 18: MOH media office social media account addressing common myths and misconceptions around COVID-19. This post is titled: Does saline nasal sprays help prevent coronavirus infections?

The practical capacity for community compliance to mitigation measures was factored into government protocols and policies as reflected in the transparent public health messaging and specific guidance issued, free hotlines to respond to queries about the disease and vaccines, rapid digital transformation of government services (<https://corona.e.gov.kw>) and protocols of convenience such as the delivery of medicines throughout Phase 1 of COVID-19 restrictions (Figure 19). Existing local community networks were leveraged by the authorities to communicate risk and underscore the importance of compliance to social measures. This is well illustrated in the public health awareness campaigns launched in mosques around the country through a partnership between Patients Helping Fund Society (جمعية صناديق اعانة المرضى), MOH Media office and the Ministry of Awqaf.

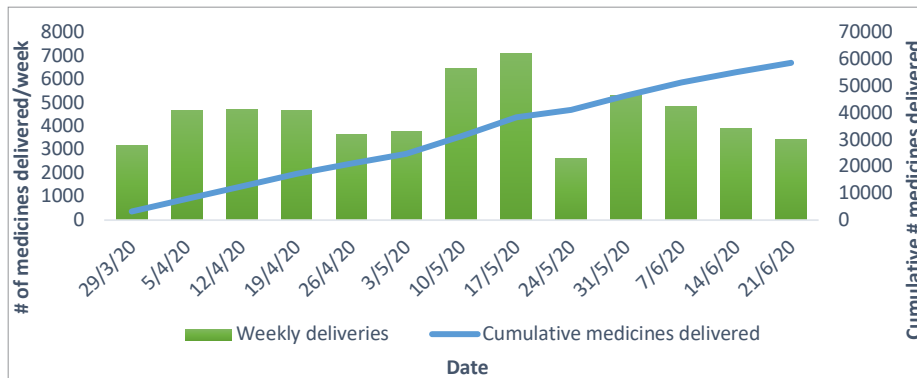


Figure 19: Home delivery of medicines during Phase 1 restrictions through a collaboration between MOH and the fire department.

From the outset, regular social media posts and conferences were leveraged for the timely dissemination of emerging evidence and public health messages in multiple languages. The public was informed of the intricate relationship between their behavior and the local epidemiological situation with the five phases of return to normalcy introduced promptly following the end of lockdown in May 2020. Daily informational updates conveyed COVID-19 epidemiological indicators such as new burden of cases, testing capacity, COVID-19 related mortality at the national and subnational levels and any adjustment in plans were directly linked to rates of mortality and ICU bed occupancy. Information on suspension or modification of service provisions

was shared with the public in addition to regular educational messages to communicate disease risk factors and promote self-care, health and well-being. The government employed moral appeals and positive language in their communication with the public. Trust in self-discipline and sense of a public-spirited national unity was effectively employed to motivate desirable behavior.

According to Google’s mobility maps for Kuwait (Figure 20) trends in visits to restaurants, cafes, shopping centers have been in consistent decline from last year’s baselines over the course of the outbreak.

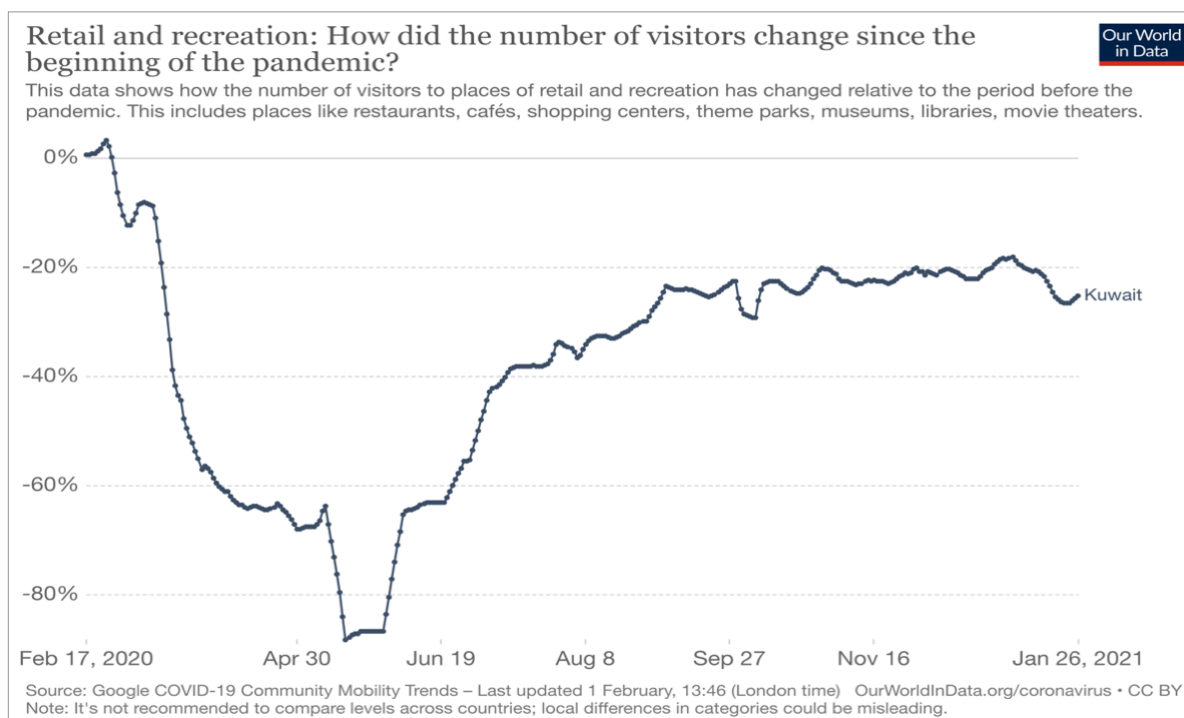


Figure 20: Google’s mobility report for traffic around places of retail and recreation in Kuwait during the COVID19 crisis

PUBLIC HEALTH MEASURES AMIDST STRUCTURAL CHALLENGES

Following the growth of the outbreak in March and April 2020, it became evident that existing challenges to physical distancing, ventilation and the built environment, particularly in densely populated residential compounds, posed a national public health risk. These factors disproportionately impacted cities like Jleeb, Khaitan and Mahboula, populated by foreign migrant workers as reflected in disaggregated case information publicized between April and May 2020 (Figure 21).

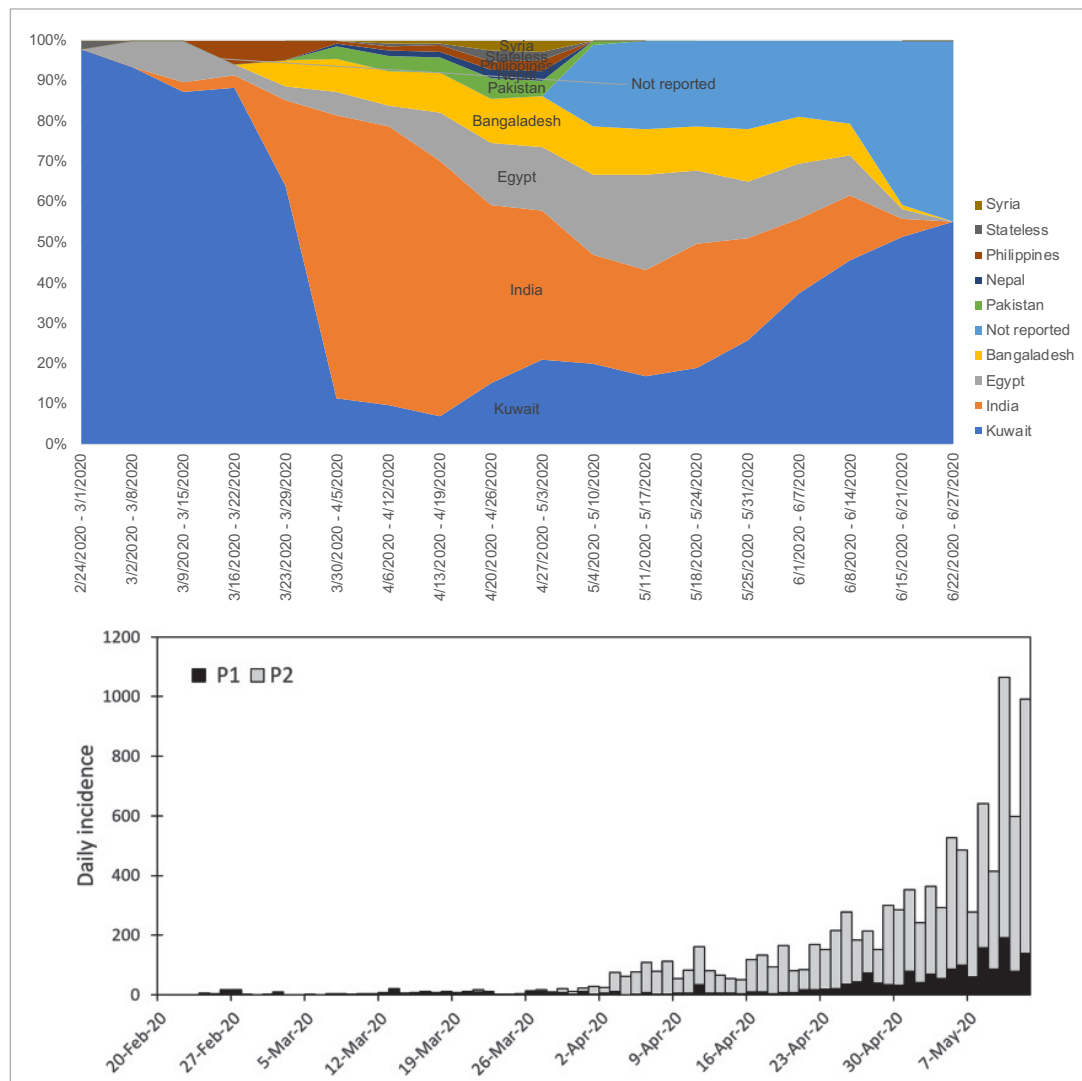


Figure 21: Case incidence disaggregated by nationality from 24/2/2020 to 27/6/2020 b) P1 indicates confirmed cases amongst a subpopulation of presumed higher socioeconomic status and P2 of presumed lower socioeconomic status, vastly overrepresented by non Kuwaitis²¹

MENTAL HEALTH SERVICES

National policies to interrupt transmission chains in these areas included zonal isolation such as that imposed on Jleeb AlShyukh and Mahboula. National Guard medical staff in coordination with the Ministry of Health opened up a Field Hospital in AlMahboula to extend free healthcare services to COVID19 patients in the city under lockdown. The Ministry of Health collaborated with the Red Crescent Society to ensure food security of the isolated cities whilst the Ministry of Education and the Union of Co-Operative Societies cooperated to ready closed schools as alternative housing.

Whilst these provisions may have allowed temporary relief to some, the stressors imposed by the COVID-19 pandemic overlap multiple domains of migrant workers' lives²² underscoring the need for multidimensional support systems and interventions that are sensitive to the lived experiences and conditions of these workers. Indeed, modeling work lead by a local team of researchers reported death rates at 9.57 per million inhabitants in low-income migrant workers following the partial lockdown of 22 March 2020 relative to 5.59 per million inhabitants in the high socioeconomic status subpopulation²³. This was attributed to increased in-house contact rate under curfew owing to highly congested residential dwellings. It is also alarming in light of the relatively younger age of migrant workers. Consequently, the evidence points to more socioeconomic status sensitive exposure reduction strategies particularly in heterogeneous communities to contain transmission foci and cross-transmission frequencies.

A survey on the effects of COVID-19 on mental health, food consumption and relationship dynamics in Kuwait conducted by the Kuwait Public Policy Centre and UNDP showed that 59.8% of females and 51.0% of males were under depression during the coronavirus outbreak.

The Ministry of health mobilized its social media platforms to disseminate guidance on coping with anxiety (Figure 22) and distress brought about by the isolating public health measures. Mental health teams from the Ministry of Health took up an active role in supporting children and youth to cope with the complicated emotions of social isolation. The Ministry also dedicated a hotline to offer support and advise to individuals and medical professionals amidst the crisis. These services also facilitated the scheduling of in-person visits for serious cases. Mental health services were also extended to vulnerable groups such as disabled persons via specialized multisectoral teams.



Figure 22: A series of posts with guidance over how to deal with anxiety due to COVID-19; Reprinted from MOH media office

⁽²¹⁾ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8152192/#idm140669902730720aff-info>

⁽²²⁾ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7348320/>

⁽²³⁾ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8152192/#idm140669902730720aff-info>

VACCINATION

Kuwait offers free access to the COVID-19 vaccine to citizens and residents registered on the MOH vaccination platform. The State administers vaccine at the Mishref International Fairgrounds which is supported with cold storage facilities for vaccines such as Pfizer/BioNTech requiring storage at a temperature of minus 70 Celsius to maintain its efficacy. Other accredited vaccines such as the Oxford/AstraZeneca COVID-19 vaccine is administered at more than 15 centers across the country's primary and tertiary health facilities including a drive-thru vaccination centre based at the Jaber Causeway. The State's risk mitigation strategy relied upon a diversified vaccine portfolio, nonetheless, it still could not stymie the effect of global supply shortages.

The Kuwaiti code for pharmacovigilance practice and electronic infrastructure for monitoring the side effects of drugs and vaccines earned it its permanent membership in the World Health organization's (WHO) program for international drug monitoring²⁴ in April 2021 following 3 years as an associate member. One of the final requirements was met with the local implementation of Vigiflow, a web-based individual case safety report (ICSR) management system for medicines and vaccines maintained by the Uppsala Monitoring Centre. This will enable healthcare providers, patients and marketing authorization holders to report any product-related safety concerns including adverse reactions from a COVID-19 vaccine²⁵.

At the global front, Kuwait intensified its international outreach amidst the crisis by ensuring equitable access to COVID-19 vaccine as a participating donor to the COVAX facility. Indeed, in solidarity with the world's poorest, Kuwait contributed with \$ 50 million to secure vaccine²⁶. Other commitments came in the form of grants to regional partners including Lebanon, Jordan and Palestine in order to aid their pandemic response²⁷, provide medical and respiratory devices and extend comprehensive treatment to patients in need.

Conclusion

Kuwait came into the pandemic from a position of resilience strengthened by the State's resource reserves and strategic investments into the healthcare system. Together with the swift response of its central coordination unit the country was able to bolster its position to deal with the severe medical and economic demands of the pandemic. The national response attended to cross-cutting issues through missions that

- a) secured the return of domestic workers stuck abroad,
- b) facilitated the return of undocumented workers to their hometowns without implementation of violation fines
- c) implemented laws that protected the most vulnerable.

However, whilst the pandemic sharpened the focus on important culprits for health disparities within the population, such as human trafficking, labor law loopholes and poor living conditions; there remain long-standing structural challenges that exacerbated the human toll of this crisis. Future interventions must factor in the large segments of society that occupy densely populated dwellings, those with no access to transportation, health insurance and basic necessities. Towards this end, intensified public health surveillance and outreach may protect human life through simple initiatives such as mobile clinics and appropriate health education.

⁽²⁴⁾ <https://www.who-umc.org/global-pharmacovigilance/who-programme-for-international-drug-monitoring/who-programme-members/>

⁽²⁵⁾ <https://apps.who.int/iris/bitstream/handle/10665/338400/9789240018280-eng.pdf?sequence=1&isAllowed=y>

⁽²⁶⁾ <https://www.kuna.net.kw/ArticleDetails.aspx?id=2980144&language=en>

⁽²⁷⁾ <https://www.kuna.net.kw/ArticleDetails.aspx?id=2979018&language=en>



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