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Healthcare Protection Policies during the COVID-19 Pandemic: Lessons towards the Implementation of the New Egyptian Universal Health Insurance Law

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A Policy Paper in Contribution to the Research Project:

Social Protection in Egypt: Mitigating the Socio-Economic Effects of the COVID-19 Pandemic on Vulnerable Employment

The Pandemic and Post-Pandemic Research and Innovation Initiative at the American University in Cairo

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Abstract

On March 11th 2020, the World Health Organization (WHO) declared the coronavirus a global pandemic. The spread of the virus in many countries has exceeded the capabilities of the traditional healthcare systems and has challenged government plans to contain it.

The COVID-19 pandemic arrived in Egypt at a time when the first steps in the implementation of the newly ratified law on social health insurance were taking place. Law number 2 for the year 2018 saw the first steps of its implementation in Port Said governorate. As the realisation of the law is proceeding in other governorates, the pandemic and the policies it brought impacted the implementation process of the law.

This paper attempts to provide an assessment of the policies taken to challenge the spread of the COVID-19 pandemic. It investigates the effects of the health system's response to the pandemic on the implementation of the new health insurance law. The paper also aims at providing lessons from the management of the first phase of the pandemic, lessons that could be capitalized upon during the implementation of the health insurance law and in the health system reform in general. Understanding the effects of these policies and drawing lessons from the management of the first phase helps identify future challenges, opportunities and pitfalls in providing full comprehensive healthcare coverage for all Egyptians during the realization of this law.

The paper draws its analysis, conclusions and recommendations from a number of sources including documentation of government policies towards the COVID-19 pandemic from January 7th 2020 until August 23rd 2020, desk review of data on the effects of these policies on disease morbidity and mortality, results of community assessments of healthcare services before, during and after the implementation of the new health insurance law in Port Said and input from key stakeholders. These key stakeholders include representatives at the different authorities in charge of the implementation of the new health insurance law and the COVID-19 response effort, service providers at different levels of healthcare service provision, service beneficiaries and service users and experts, policy makers and analysts. Based on the study's findings, key recommendations are provided in managing the COVID-19 pandemic, implementation of the new health insurance law and beyond.

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1. General Context

On March 11th 2020, the World Health Organization (WHO) declared the coronavirus a global pandemic. Governments have since put in action a wide range of measures and policies with the aim of reducing morbidity and mortality of the virus. The aim was to protect citizens and to save the healthcare systems from being overloaded.

In Egypt, on March 16th 2020, the Cabinet announced its decision to reduce the number of employees in government offices, to suspend flights, suspend studies in schools and universities, in addition to more restrictive measures that included a partial curfew. However, in order for these efforts to have yielded the expected results, full cooperation of all stakeholders was essential. The spread of the virus in many countries has exceeded the capabilities of the traditional healthcare systems and has challenged government plans to contain it. It became evident for decision makers that citizens should be empowered with tools to help them confront the virus, reduce its losses and turn into active players in reducing its negative impact. This paper provides an opportunity to study these policies, their effect on public behaviors, on health outcomes as well as how the different institutions responded to them.

The COVID-19 pandemic arrived in Egypt at a time when the first steps in the implementation of the newly ratified law on social health insurance were taking place. Law number 2 for the year 2018 saw the first steps of its implementation in Port Said governorate. As the realization of the law is proceeding in other governorates, the pandemic and the policies it brought impacted the implementation process of the law, and the general principles that govern the functioning of the law. We have seen the most vulnerably employed impacted the most by these pitfalls. Understanding these effects and drawing lessons from this phase helps identify future challenges, opportunities and pitfalls in providing full comprehensive healthcare coverage for all Egyptians.

2. Study Questions

This paper attempts to answer the following questions:

1) What are the government policies taken to challenge the spread of the COVID-19 pandemic?

2) How did the concurrent implementation of the new health insurance law respond to the measures and needs of the COVID-19 pandemic?

3) What are the lessons learnt from the management of the COVID-19 pandemic that could be capitalized upon during the implementation of the health insurance law and in the health system reform in general?

3. Methodology

This paper draws its analysis, conclusions and recommendations from the following sources:

1) Documentation of government policies regarding the COVID-19 pandemic from January 7th 2020 to August 23rd 2020. This is based on literature, press and official communications review spanning over this timeframe as well as daily data related to COVID-19 as communicated by the Egyptian

government.

2) Desk review of data available on the effects of these policies on disease morbidity and mortality.

3) Results of community assessments of healthcare services before, during and after the implementation of the new health insurance law in Port Said.

4) Input from key stakeholders: These include statements, writings, focus interviews and contributions to evaluate the measures taken to confront the pandemic and to ensure protection of the beneficiaries from the health and financial burdens. These stakeholders include:

a) Representatives at the different authorities in charge of the implementation of the new health insurance law and the COVID-19 response effort,
b) Service providers at different levels of healthcare service provision,
c) Service beneficiaries and service users,
d) Experts, policy makers and analysts.

A total of 19 contributions and input have been collected by key stakeholders. These include individual interviews and answers to specific questions provided to key stakeholders. The identity of all stakeholders included in this research has been intentionally redacted to enable a more candid expression of data, views and analysis.

4. Key Findings

A. Health System Structure, Financing and the Health Insurance Scheme

The healthcare system can generally be divided into three sectors: private for-profit, private non-profit, and public government-run. This includes different sectors relating to service provision, however, primary healthcare services are mostly provided by the public sector while private pharmacies play an integral part in healthcare not only in dispensing of medications but in many cases, in informal diagnosis.

Private for-profit facilities exist on a variety of scales. Many physicians, sometimes in small groups, will establish private for-profit clinics or small hospitals in order to expand their income. When clinics and small hospitals are established in this way, services tend to be limited to a handful of medical specialties. However, increasingly, foreign and domestic capital has been invested in more institutionalized private for-profit hospitals, especially in the Greater Cairo Region [12]. These investments have led to the development and expansion of high-end, luxurious private hospitals, where high quality care is provided for exorbitant fees.

Many mosques, churches, and charitable civil society organizations are involved in the provision of healthcare services in Egypt. These facilities tend to be smaller in scale, however there are also some full-scale larger hospitals operated by the civil society sector. Scholars have hypothesized that the rise of NGOs providing healthcare services in Egypt has corresponded to an increasing void left by the state as a result of decades of austerity policies [26].

There are several ministries involved in the management of public healthcare services. The Ministry of Higher Education operates at least one large tertiary hospital in each of Egypt's governorates, which have a medical school. Other ministries involved in the provision of healthcare services include the Ministries of Defense, Interior, Agriculture and Transportation, which have hospitals that cater to their employees, affiliates, and their

family members.

The Ministry of Health (MOH) manages hospitals through a variety of entities, including the Secretariat of Specialized Medical Centers (SSMC) and the Curative Care Organization (CCO), in which patients are charged inflated user fees for medical services. The MOH also manages a vast network of Health Units, health centres and labs that provide services in urban and rural areas.

In terms of public health insurance, 58% of the population is covered by the current health insurance scheme of the Health Insurance Organization (HIO), a parastatal entity [27]. However, it has been reported that utilization of these services is quite low due to concerns regarding quality of care [28]. Currently, a new health insurance system is reshaping how people access healthcare services in Egypt. The law number 2 for the year 2018 is planned to be fully implemented by 2030 and has received widespread praise from inside and outside of the country, including from the Director General of the World Health Organization [29]. The new Health Insurance Law will ensure greater coverage in the coming years. The constitutional requirement for a "comprehensive health insurance system covering all diseases for all Egyptians" should also stimulate this insurance scheme. This law is to turn the insurance body into the largest buyer of healthcare services in the country. A dedicated entity will be entitled to carry out quality audits of healthcare facilities and only those who receive quality accreditation will be eligible for contracting with the social health insurance. Pricing will be set by the entities board, still, the large pool of patients who will be directed to this new player will be too important to dismiss. Once implemented, this law will mean all Egyptians will have access to a mandatory health insurance scheme, which they will use in particular when it comes to speciality services. In this case, a "gatekeeper" will be in place, a role played by family health practitioners who will be the referral point to speciality services. However, questions remain as to how this new health insurance scheme will reconcile systemic issues and deeply rooted healthcare inequities in the Egyptian healthcare system [73] .

B. Health System Resources

The number of hospital beds per capita reported in 2017 by CAPMAS was 1.37 per 1000 people, with more than 37% of these beds existing in the private sector [4]. This is below the 2014 regional average of 1.5 hospital beds per 1000 people, for the Middle East and North Africa (high income countries excluded) [30]. The most updated figures were presented by the Minister of Higher Education in a recent presentation [74]. According to the minister, there are a total of 92,757 hospital beds in Egypt (excluding army hospitals, police hospitals, private for-profit and private non-profit hospitals) [31]. These are split into 56,932 beds operated by the Ministry of Health (5,283 ICU beds) and 35,825 beds operated by the Ministry of Higher Education in University Hospitals (3,981 ICU beds). These figures show that there are 0.92 hospital beds per capita today and 9,264 ICU beds in Egypt's hospitals (excluding police, military, and private hospitals). Furthermore, with the same exclusions, in the same presentation it was shown that in Egypt there are 5,237 ventilators [31].

In terms of health professionals, notably doctors and nurses, there are shortages in the public healthcare sector [32]. As of 2017, according to CAPMAS, there were 1.43 practicing nurses and 1.35 practicing physicians per 1000 people, respectively, on duty in the Ministry of Health [4]. However, this statistic reported by CAPMAS

is disputed by the World Health Organization's Global Health Workforce Statistics database, which reports 0.79 total physicians per 1000 population for the same year, with a sharp decline to 0.45 per 1000 people in 2018 [33]. In terms of nurses, the same database reports 1.86 and 1.9 nurses per 1000 population in 2017 and 2018 respectively in Egypt. Furthermore, and relevant to the current pandemic, the WHO's Global Health Workforce Statistics database reports that in 2018 there were 17,583 Medical and Pathology Laboratory Personnel working in Egypt [33].

C. Egyptians and COVID-19

While the novel coronavirus, or COVID-19, was first detected in Wuhan, China towards the end of 2019, Egypt did not see its first documented case until February 14, 2020. Since then, as has been the case in many countries across the world, there has been a rapid growth in the number of cases of COVID-19 in Egypt, which has impacted people's health and well-being and their livelihoods.

Egypt's population has been predominantly young for at least the past 10 years. Roughly one third of the population is between 0-14 years old. In 2017, 52.43% of the population was 25 or younger [4]. Meanwhile, life expectancy in Egypt is just under 72 years [5].There is also a relatively high age dependency ratio in Egypt of 64% as of 2018 [6].

Biological risk factors to COVID-19 include old age, compromised immunity, and underlying chronic illnesses. As mentioned above, the Egyptian population is relatively young, especially when compared to countries in Europe that were hard-hit by the virus. In terms of chronic conditions, in Egypt 25% of the population is hypertensive, 17.9% of adults are living with high blood glucose, and 32% are obese [15]. Data from 2007 to 2017 has shown that ischemic heart disease, stroke and liver cirrhosis have consistently been the three most common causes of death in Egypt [16]. Egypt has seen notable success in the fight against Hepatitis C. following a robust national campaign it was estimated that in 2019 only 6.9% of the population was now living with Hepatitis C [17] compared to 14.7% of the population in 2015 [18].

Health vulnerabilities

Lifestyle risk factors, such as alcohol consumption and tobacco use are also important to consider here, especially the latter which is more contextually relevant. In Egypt, while the vast majority of the population are life-time alcohol abstainers, 95.3% in 2015 [19], CAPMAS estimates that smoking prevalence had reached 22.8% of the population in 2018 [20]. COVID-19 is a respiratory disease meaning that smoking greatly increases vulnerability to illness.

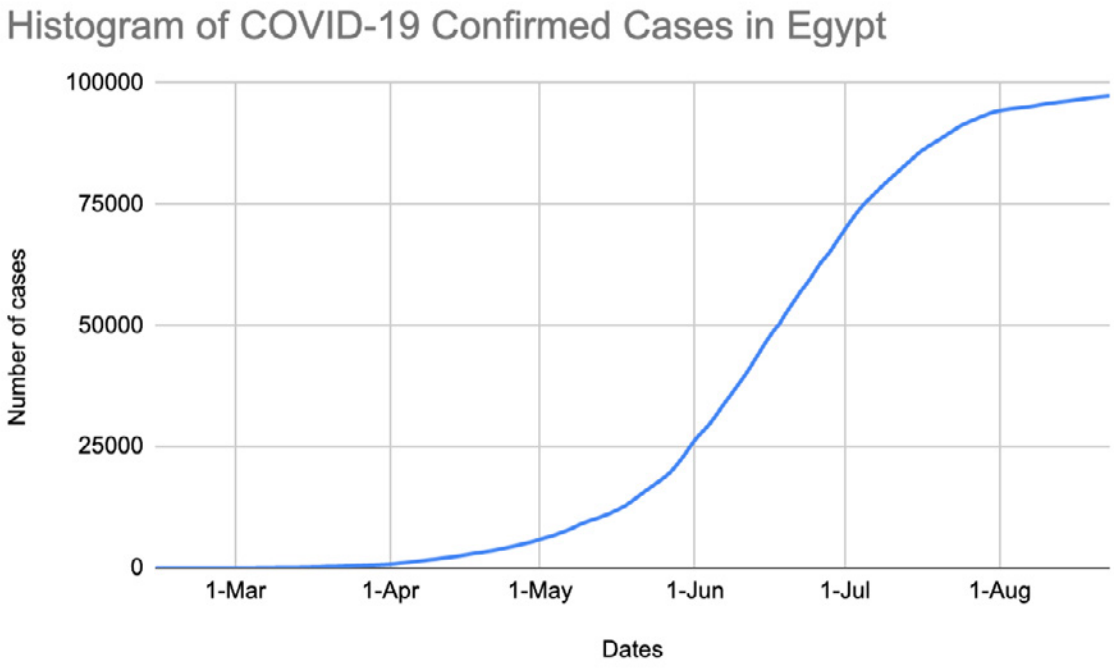
It is also important to address the socioeconomic and structural risk factors in the Egyptian context that make certain demographic groups more vulnerable to COVID-19. Poverty is a crucial factor to consider. When families have to pay fees for healthcare, the amount can be high enough in relation to income that it results in "financial catastrophe" for the individual or the household. Such high expenditure can mean that people have to cut down on necessities such as food and clothing, or are unable to pay for their children's education. [75] A study by Rashad and Sharaf estimated that in 2011 catastrophic health costs in Egypt were among the highest compared

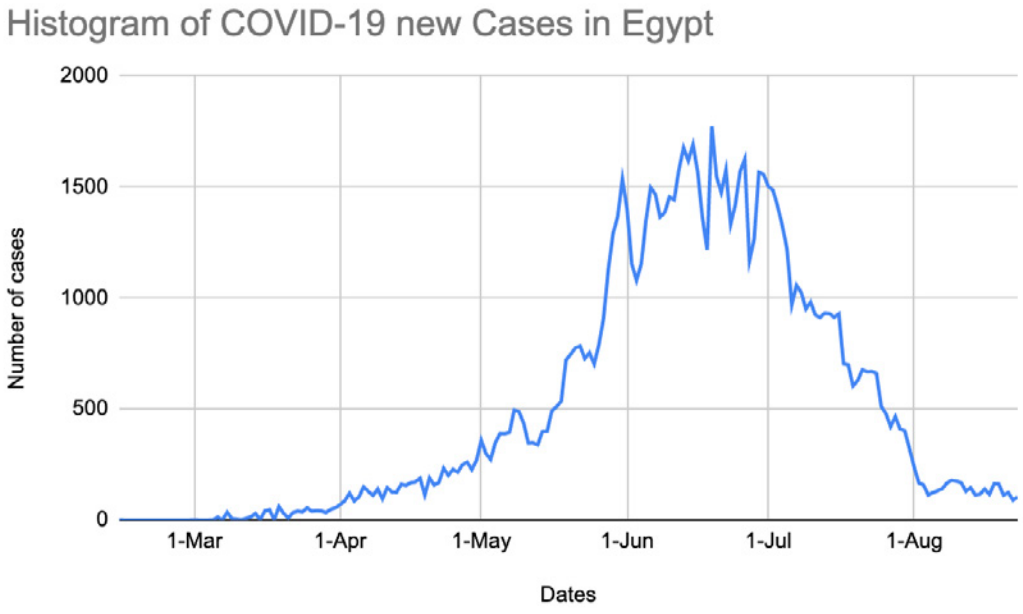
to other low- and middle-income countries, and that this burden disproportionately affects individuals and families in the lowest income quintiles [21]. This may point out to a possible inverse correlation between access to care and vulnerability to COVID-19. People working in the informal sector (an estimated 10 million people in Egypt) [22] are another high-risk group, as they may be unable to quarantine even if they are symptomatic because of their reliance on day-to-day wages. What is important to note is the intersections of these various socioeconomic factors that make people more vulnerable to disease. This has been shown in several previous studies in Egypt; class, gender, and other social stratifiers, often intersect and have an undeniable impact on people's health [24]. COVID-19 is no exception to these trends, in fact it is likely that it is an exacerbator of these inequities.

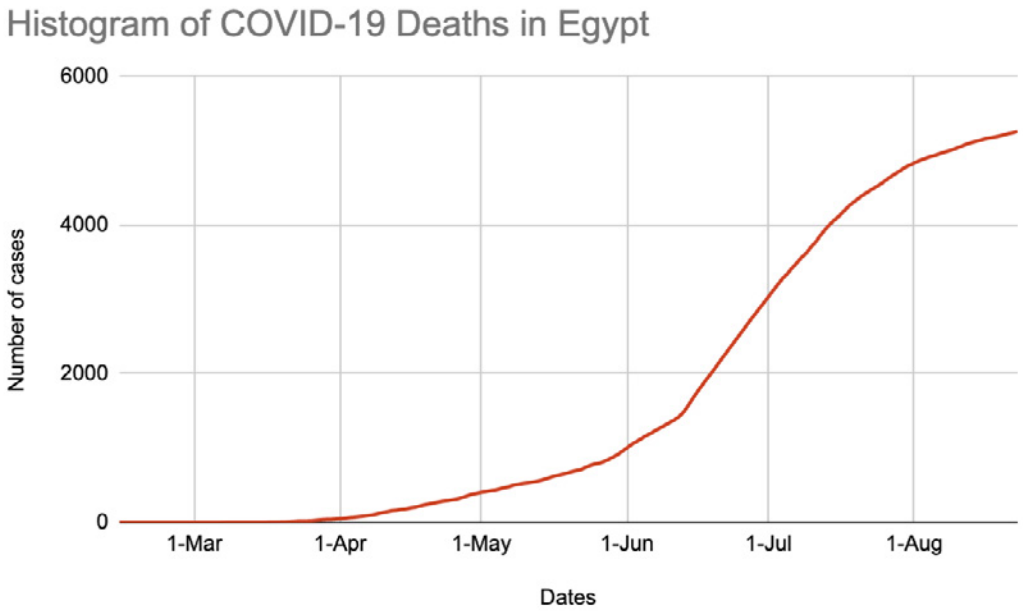
In addition, those working in healthcare settings have been particularly vulnerable to exposure to the virus. Regular shortages of personal protective equipment (PPE) and lax infection control protocol were issues in many Egyptian healthcare facilities prior to the pandemic. These healthcare disparities affect some healthcare settings more than others. To add to this, health professionals who are exposed to infection as a result of their work often struggle to find support for the care they need. Notably, medical staff in the public sector receive a mere LE 19 (US$1.23) per month as compensation for diseases they may catch while on duty [25].

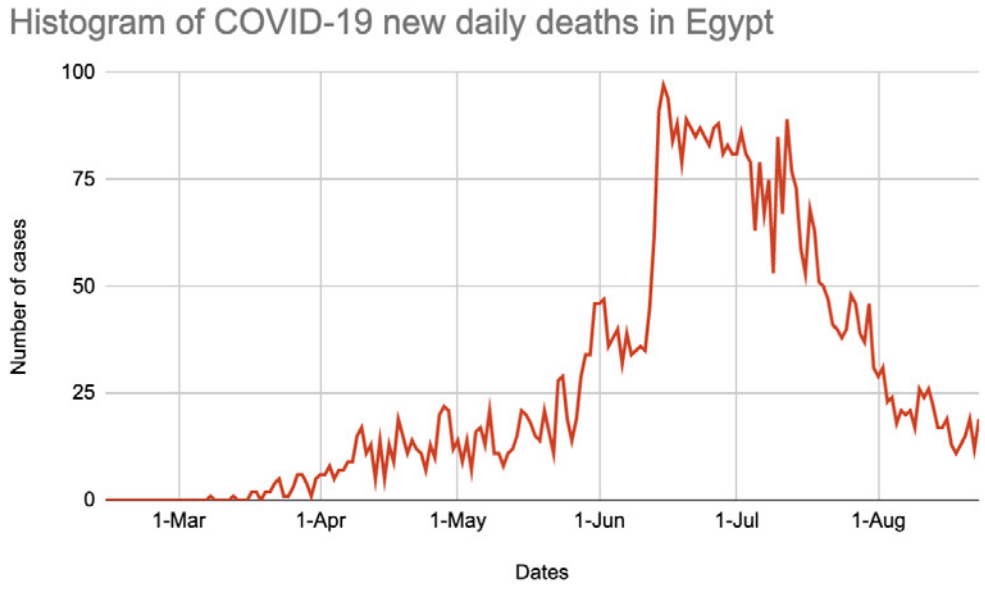
The following histograms show trends related to cumulative numbers of cases and deaths as well as the daily new numbers spanning till August 23rd 2020. These charts have been built based on the data produced by the ministry of health in its daily communiqués.

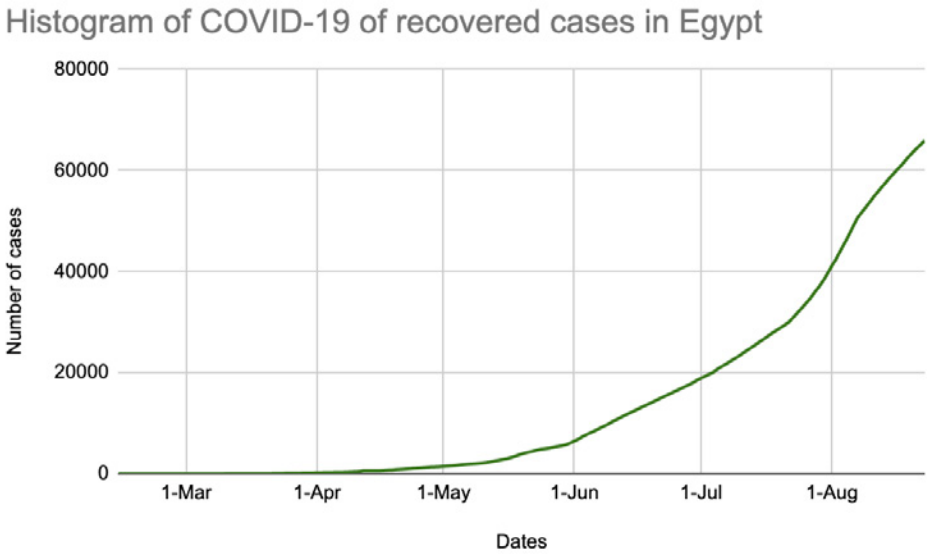
Raw data can be found here.

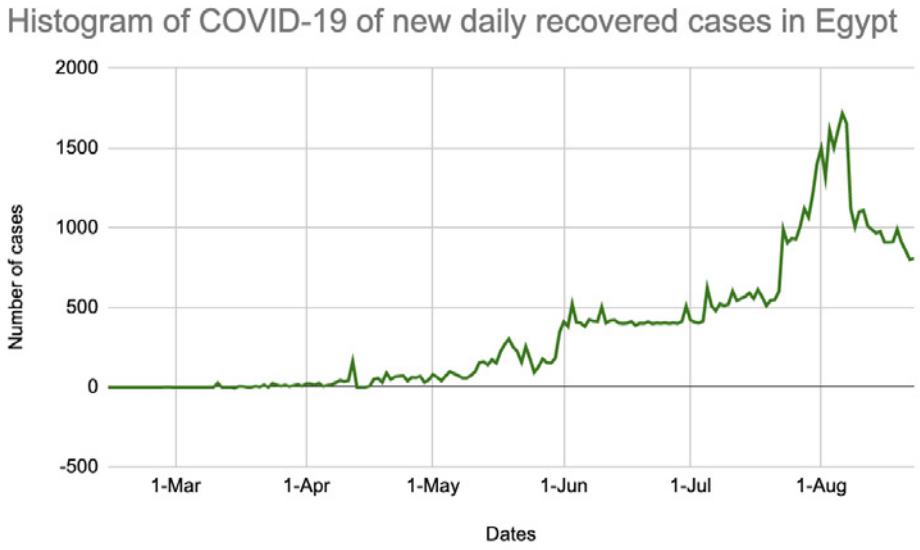



Histogram of COVID-19 new Cases in Egypt
2000
1500
1000
500
0
Number of cases
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
Dates


Histogram of COVID-19 Deaths in Egypt
6000
4000
2000
0
Number of cases
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
Dates


Histogram of COVID-19 new daily deaths in Egypt
100
75
50
25
0
Number of cases
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
Dates





D. Policy Interventions during the Pandemic

The table in Annex 1 displays highlights of the key milestones and policy decisions taken by the different government entities amid the pandemic. Data about new cases and new deaths are also displayed.

E. New Technologies

With the first Egyptian positive case, on March 5th, The Information and Decision Support Center (IDSC), part of the cabinet, launched a dedicated government website, Egypt Cares, with all available information related to COVID-19. The website includes the numbers of cases, new cases, recovered, newly recovered, deceased, and new deaths. It also includes comparisons with other countries and global situation analyses. The website also communicates the government's efforts in facing the pandemic.

On April 14th, The Ministry of Health and Population announced the launch of the "Health of Egypt/Egypt's Health" mobile application, which aims to provide citizens with information on how to prevent the spread of COVID-19, and what to do when suspected of infection [53].

Information and data in the application are approved by both the Ministry of Health and Population and the World Health Organization as the app is constantly updated according to the latest available data and information. The application also provides the possibility to communicate with a medical team to follow-up on symptoms. It was pointed out by the ministry that the application will send alert messages to users if they come near areas that have clusters of documented positive cases. However, activating the feature requires the permission of users to constantly share their locations. There are questions about the utility of substituting the hotline with the app, given limited access of the population, the lack of usage of analytics (or any communication about it) in decision making related to mitigation policies (like geographically targeted curfews) and concerns about the potential misuse of this data as a surveillance tool of the state, especially in light of the detention of citizens voicing their criticisms to government's policies [54].

By the end of March, Daily News Egypt reported that the ministry of Social Solidarity launched an e-portal to receive citizens' inquiries and complaints, especially regarding the Takaful and Karama cash transfer programme. The e-portal will reduce the need for physical interaction. The Minister of Social Solidarity announced that the switch to online services comes as part of the ministry's precautionary measures to curb the spread of the novel coronavirus (COVID-19). At the same time, the new online service is to provide transparency in all Takaful and Karama services. Data about the effectiveness of these measures in curbing the spread of the virus are still not available [55].

There is a rising potential for digital solutions developed by non governmental entities in Egypt. For example, Shamseya, a civil society organization, created salametna.com as a response to the COVID-19 pandemic. Through this website, anyone going to a public space, for example a supermarket, bank, barbershop, or grocery shop, can make an assessment of the place they are visiting based on safety and infection control indicators aligned with the measures announced by the WHO and MOH. Assessments are posted online for everyone to see, so that users can make informed, safe decisions when choosing where to go. This tool includes public places on a national level depending on the active role citizens were willing to play in evaluating their own local service providers. This crowdsourced platform has had a limited scale of utilization since it has not been endorsed or promoted by the authorities. In general, the uptake of similar civil society-based technologies by the government has been limited.

5. Analysis

A. "Whole of Government" Policies

As the government began to address the imminent threat of this pandemic, a commendable decision to turn to a "whole of government approach to health" was adopted. This line of management was also to be carried out based on data and information. However, it is important to note that the limitations in data availability (particularly demographic data, disaggregated data and data about testing) compared to other countries as well as potential inaccuracies in reporting of contaminations and accurate causes of deaths suggest any analysis should be drawn with caution.

The leading causes of death in Egypt are non-communicable diseases which, according to the WHO, is estimated to account for 82% of all deaths in the country. This shows the double burden of both non-communicable diseases and infectious diseases (like COVID19) on Egypt's health system.Since the beginning of the pandemic and, as the government reported its first intervention starting from January 7th, the strategy adopted by the government was one that balances between measures to restrict mobility and social interactions without severely affecting economic activities. Although no full lockdown has been imposed throughout the course of the pandemic, yet, the government has started by a closure of public spaces at night since March, then partial curfews with varying durations with fines on violations reaching 4,000 Egyptian pounds. The government also recently imposed the wearing of masks in public spaces. Together with the set of measures approved by the government and detailed in this document, it is difficult to estimate the extent to which this has contributed to the rates of infections or deaths as the disease curve has not definitely reached its peak till the moment of writing of this paper.

There are concerning elements about the application of the curfew policy in Egypt. In terms of public health, the government could have started a lockdown as other countries did, as a stricter measure to contain the spread. It is claimed that it is not applicable to developing countries because of their already inescapable economic burdens. However, evidence shows that it is possible to impose a lockdown in LMIC like Morocco and El Salvador. A report by the Egyptian Initiative for Personal Rights heavily criticizes the government calls for citizens to stay in their homes to "prevent the epidemic spread of the Coronavirus" while "insisting on the resumption of work in the contracting sector even though the opening of national projects was postponed to 2021". They also criticized "the exclusion of workers in the industrial private sector from the curfew and delayed closure of private sector work in all sectors" [63]. This business as usual mindset meant insufficiently reduced mobility for work related reasons, which, at least, did not contribute to flattening of the curve.

Moreover, there have been questions about the government's decisions to loosen mobility restrictions during the month of Ramadan (that started 23rd April) which allowed gatherings for Iftar. Clearly, it was not a positive step in attempting to control the spread of the virus, especially given that the government was expected to ban such gatherings through a tighter curfew [64].

When evaluating government policies, it is important to consider that policies to suppress COVID19 may be challenging in situations of social and economic inequality [65]. In a country where most Egyptians workers work more than 40 hours per week, workers are likely to use night hours to increase their income levels to meet their needs. Moreover, it is very likely that individuals with higher incomes are more inclined to work from home due to the nature of the work they do, while poorer workers - and people with limited education - need to physically be at their workplace or driving. This is especially true in sectors that are excluded even from curfews such as public construction and the private industrial sector, which threatens the safety of workers exposed to infection and material need [63]. A policy of such importance should not be unidimensional. It must be accompanied by parallel policies to ensure that no one is left vulnerable and in need. A major policy recommendation would thus be to suspend work in the peak of the pandemic while protecting workers with the remuneration needed to sustain livelihoods. According to expert opinions, governments can support the private sector to keep jobs while off work, or protect workers through monetary and unemployment insurance policies [67].

B. "Whole of Society" and Good Governance

The COVID-19 pandemic represents a global crisis with no preset playbook to follow. Countries on the opposing ends of the wealth and resources spectrum are facing different sets of difficulties and paying in resources and human lives. This was clear from the beginning of the pandemic and especially now. Yet, the Egyptian government seemed to have chosen a path of the sole player, fully in charge of the management of the pandemic, with limited involvement from other players in the Egyptian society, therefore, it would also be assuming the full responsibility of the outcomes. This is not only unnecessary but does not constitute a particularly successful approach when addressing a pandemic of a communicable disease where human behaviours play the most important role.

Although transparency of data and communication with the public has relatively improved from before the pandemic, yet, the amount, precision and specificity of the data is still not sufficient to elicit the needed trust from the public. Data regarding the number of tests carried out, distribution of cases, demographics of infections and the plan of the government to address the pandemic have never been publically available. Most importantly, the government never clearly stated what are its needs and what society, private sector and local communities do to help. Although the minister of health thanked the private sector and NGOs for their contributions, none of these were based on a clear and public request. Hundreds of initiatives and contributions have been presented by private sector players and NGOs trying to address what they believed to be missing, yet, none of those needs were actually confirmed by the government. In fact, the public has been often confronted with conflicting messages about the needs for PPEs, then news of Egypt donating PPEs to the US and Europe. The assumed need for ventilators, then learning that we have over 5,000 ventilators in Egypt, only 50 of them are being used to address COVID-19 needs. This lack of ownership and the limited voice stakeholders had in setting the policies and priorities to address the pandemic, turned this into a "government problem" rather than a societal problem to address following a "whole of society approach".

With the conflict that exacerbated between the medical syndicate and the government making an additional dent into the principles of inclusion, participation and stakeholder engagement, doctors - key stakeholder in the pandemic containment efforts - felt excluded and felt were never really an integral part in the planning or strategy setting process. This same scenario repeated with private sector healthcare service providers. Private hospitals were not allowed to receive COVID-19 cases since the very beginning. Testing and investigations were restricted to government facilities. When by the end of the month of May the government announced it will allow the private sector to provide paid services, again, this was not carried out in a way that was inclusive or participatory. The outcome was a high price tag for services that were followed by a government set standard pricing for private service providers. Since again this pricing was not agreed upon in a way that was inclusive, the chambre of private sector health services providers ended up announcing it is going to refrain from providing any COVID-19 related services, creating a new dent in the pool of service provision sites that could have been prevented by a participatory approach to decision making.

Good governance, social participation and stakeholders voices were long demanded by civil society and development agencies when it comes to management of the healthcare sector in Egypt, yet, this has become a necessity that translates into public trust and has direct repercussions on morbidities and mortalities.

By the end of June 2020, the government confirmed it is not running short of hospital beds or ventilators, yet, the defects in patients navigation and communication has made access to services a challenge that affected the infection rates and the satisfaction of the patients. Community participation would have enabled hundreds of solutions to address these defects. A whole of society approach is especially important when governments alone cannot contain a global pandemic.

The WHO has been long advocating for a "Whole of Government" approach to health policies. Recently, with the global call for "health for all", a "Whole of society" approach has also been at the forefront of the organization's calls for actions. The timely response to any crisis is the basis for dealing with the epidemic. This also entails transparency, accountability and responsiveness that sometimes exceeds the capacity of even the most skilled bureaucracies, as the rules that apply to routine operations become inappropriate in times of pandemics. Having a well established, systematic good governance is essential at all times. Its value and the impact it has is only manifested in such events

Based on this, proposals such as the creation and restructuring of a Higher Health Council are vital to consider during such times. Such a council, if equipped with the authority and the community representation it requires, can provide a platform for a more comprehensive stakeholders engagement that transcends beyond the COVID-19 pandemic and can last as the reforms of the healthcare system are underway with the new health insurance law and beyond. This council can only be successful when others have failed if it is 1) Designed in a way that engages all stakeholders, not just government entities, 2) Is equipped with the needed authority and mandate instead of just acting as an advisory body and 3) Operates with independence from other ministers as an body dotted with the its operational autonomy.

C. Stigma and COVID-19

At the early stages of the pandemic, the government adopted a breakthrough policy of creating isolation venues in university dorms and students' hostels. But the social stigma that was associated within the Egyptian population with isolation constituted a considerable drawback for this policy. The fear of being isolated at the mercy of others if diagnosed as a positive case created a negative association between a person or a group of people who share certain characteristics and COVID-19 disease. This meant that people with COVID-19 or people in contact with the disease were thought to be discriminated against by a group of society.

This discrimination negatively affected people with the disease, as well as their family and friends. The current outbreak of COVID-19 has raised social stigma and discrimination against people of certain ethnic backgrounds (for example, in the case of COVID-19, we find the phenomenon of stigmatization against people of Asian origin), as well as against people who are in contact with the virus (such as patients or doctors who deal with cases of COVID-19). The truth is that this phenomenon is dangerous, because blaming and insulting certain groups of people for a pandemic is a threat to all because it creates challenges and social divisions that hinder efforts to control the pandemic. It directly hampers reporting of cases and encourages suspected cases to refrain from seeking medical care.

In Egypt, social researchers began to observe the seriousness of this phenomenon, in some villages challenging the partial curfew in some cases. In other cases, like one of the villages of the Dakahlia Governorate, villagers actively prevented burial of a doctor who died due to COVID-19 in the cemeteries of the village. Although stigma and fear are known aspects to account for during pandemics, accounting and studying these events should be carried out to assess its extent and roots.

The growing stigma associated with COVID-19 may be caused by three main factors:

1) It is a new disease and most is still unknown about it, clearing the coast for the spreading of rumors, misinformation as well as stereotypes about people who have or are suspected of having the disease.

2) Since most of the communication messages promoted by the state focus on individuals' behaviors, it is easy to to blame infected persons or their relatives for their actions that lead to their contamination in an attempt to reduce stress and fear.

3) The initial relation between the pandemic and certain races and ethnicities, in this case, regarding Chinese people or people of Asian origins more broadly.

In conclusion, one of the necessary steps in treating the social stigma crisis associated with the emerging coronavirus is to understand its dimensions through the assistance of social researchers and specialists in sociology and anthropology. These specialists may have a role in scientifically assisting the state in formulating the media message to deal with the emerging coronavirus. The state could play a role in raising awareness of the nature of the virus and the methods of infection with it, the seriousness of gatherings, and the danger of stigmatization and discrimination against those infected with it. It is not enough to rely solely on television campaigns or social media pages, but there is a need for wide community participation with credible local personalities and leaders, as well as the importance of cooperation with civil society.

D. Strengths and Weaknesses in the Egyptian Healthcare System during the Pandemic

Most contributors to this paper have clearly stated that we are still in the midst of the COVID-19 pandemic. It may be too early to carry out a full evaluation of how our healthcare system managed to respond to this pandemic. Putting this into account, an initial assessment is possible and is, in fact, critical as the pandemic unfolds.

There is a general consensus that Egypt's management of the pandemic was on the right track, early on. We started at the right time, the measures so far were reasonable and the escalation of precautionary measures was balanced with the escalation of the disease spread locally, regionally and globally. It is important to know that Egypt has always been a crossing point for epidemics between East and West. Cholera used to pass from Egypt to Europe, it came from India to Jeddah, and from there to Mecca, then to Suez, then Cairo, then to Alexandria, and then to Europe.

In all the previous crises, the preventive medicine sector at the Ministry of Health managed these crises in a balanced way. In some cases it used to take questionable and exaggerated precautionary measures in order to advance the public interest, as was the case with the swine flu in 2009, when the preventive sector recommended radical measures such as extermination of pigs and purchase of large quantities of Tamiflu while the risks of the disease did not particularly call for that.

The relative success of the Ministry of Health's measures so far in dealing with the COVID-19 lies in the revival of the role for which the health sector was established in Egypt a century and a half ago. When Muhammad Ali founded the health system at its inception, it was aimed at confronting epidemics. Since then, the health system has gone through many stages, but the preventive sector in the Ministry of Health has remained one of the strongest sectors in terms of experience and the possession of trained medical personnel that the World Health Organization uses. However, this interest decreased during the previous ten years, before the COVID-19 came and revived it again. Revival here was primarily based on a strong operational, institutional and physical infrastructure that included health offices and health care units in all neighborhoods, cities and villages nation-wide, compulsory vaccination programs which eliminated diseases such as smallpox, measles and tuberculosis, as well as polio.

It may be useful to refer to the press release of the COVID-19 Technical Support Mission in Egypt, which concluded its work on March 25, 2020, where the statement referred to the strength of the epidemiological surveillance system in Egypt "the well-established disease surveillance system in Egypt and tracking efforts has proven the government can be effective in controlling and managing individual and group cases of infection before they spread. Now, the recent border closures provide an opportunity to enhance screening and rapid testing capacity using the risk assessment approach".

On the other hand, the curative care sector may not be as strong. This sector is facing major challenges in the numbers of doctors and nurses. This required to the Ministry of Health to act swiftly and boldly in 1) Focusing on preventive measures that would protect the curative care services from reaching its full capacity and 2) Changing the form and pathways of curative care by closing outpatient clinics in all hospitals and transferring work capacity in its entirety to health units to make the most of the current medical team.

Instead of hospitals being the first front line for the disease, (turning them into hotspots of infection), the health unit or health office located in every neighborhood or village is the first line to deal with the disease, provided that its efficiency is promoted. The units are provided with the trained medical team, radiology equipment, and analyzes that enable them to confirm or deny the possibility of any person being infected with COVID-19, so that the patient is transferred if needed to a fever or chest hospital nearby, in which a PCR test is performed. If the infection is confirmed, the patient is transferred to the nearest isolation hospital.

It was important to add the health units stage to the four stages of dealing with the virus that begins with the stay-at-home stage, and then going to the health unit, provided that the latter had the responsibility of referring to fever and chest hospitals and from there to isolation hospitals. This was designed to contribute, in theory, to reducing the burden on the medical team so that only the sick will reach the fever hospitals. However, the top-down nature of the government's interventions with little coordination and lack of social participation turned this approach into a point of weakness with the government may have missed the mobilization of local

resources to aid its effort in combating the spread of the virus.

Yet, the state was still suffering from a shortage of doctors and nurses. The health units lacked trained manpower and the entire curative care sector needed training to face the crisis. That is why the Ministry of Health's decision to open the door to volunteering was a plausible decision that takes into account this deficiency, and may have reduced the burden on the health system. It allowed scientific specialties close to the field of medicine, such as graduates of faculties of science, veterinary medicine and dentistry, to play complementary roles in managing isolation procedures and referral hospitals or with field investigation and follow-up teams. The decision also allowed the presence of volunteers for community work to educate people that the first line of defense for a person is their home. These volunteers have also been able to support other roles such as home delivery of services, especially to the elderly and people with chronic diseases, as they are the most susceptible to contamination.

The capacity of the government to mobilize and manage such large numbers of volunteers was remarkable. However, it did not mobilize other volunteers that could have played other key functions such as dentists and quality officers, which could have contributed to ensuring infection control measures are well implemented in healthcare facilities.

Communication with doctors was particularly innovative at the beginning of the pandemic. Regular online webinars were conducted with the Minister of Health, discussions on the treatment protocols were precisely carried out to ensure doctors fully follow it.

However, cases of discrimination against doctors who dared to communicate a different picture was a less strategic development that impacted the relationship between the government and the medical teams.

Warnings have been made of the risk of an increase in infection among medical personnel, such as infection of some medical teams at the Oncology Institute, the Heart Institute, the Magdy Yacoub Heart Center, and the Chest Dekernes Hospital in Dakahlia. There was a persistent need to provide all infection control requirements in all medical facilities. This would have benefited from announcing the unified scientific protocol for the method of applying these rules, with emphasis on all medical facility managers to follow up the implementation of the infection control protocol.

On May 25th 2020, the medical union warned against the risks on the medical teams, which would threaten the collapse of the healthcare systems. The government announced a series of measures to protect medical personnel, including the dedication of isolation wards in all hospitals and the provision of a sufficient supply of protective equipment. The government also stated that by this date, 291 positive cases were detected among medical personnel, with 11 confirmed deaths. 19,578 medical personnel underwent rapid tests, with 8913 PCR tests. The statement also details the amount of PPEs made available at healthcare facilities [35]. Beyond that, no further data were released regarding infections within medical personnel by official sources.

E. COVID-19 and Egyptian Healthcare Infrastructure

According to the WHO Egypt Office, by the end of March 2020, 2,000 hospital beds were allocated for COVID-19 treatment, half of which were in intensive care units, while 400,000 test kits had been delivered [36].

At the start of the outbreak there was one testing centre, and by the beginning of April there were 50 across the country and eight isolation and treatment hospitals [36]. By the beginning of June 2020, 320 MOH General hospitals began participating in patient screening [37]. Also, as of June 4, 2020, there were 57 working labs processing PCR tests in Egypt [38]. As of June 14, 2020, the first drive-thru testing centre has opened at Ain Shams University in Cairo. The government planned to open four more drive-thru centres [39]. Unlike the approximately 6,000 PCR tests that are conducted daily, as of June 14, free of charge nationwide, testing at the drive-thru centres costs approximately EGP 2,000 ($123.61 USD) [40]. It is important to note that fees charged to patients by private for-profit care providers for COVID-19 related services continues to be a point of contention as the government claims that private providers have failed to abide by a cap set on the cost of services [41].

By early May 2020 there were 17 designated isolation hospitals to quarantine COVID-19 patients, however these hospitals were reported to be at full capacity [42]. This situation carried on, without a significant increase in hospital capacity until the end of May. Capacity would eventually increase dramatically by the first week of June. As of June 4, 2020, 24 university hospitals and 340 MOH hospitals were dealing with COVID-19 patients, of which "20 are quarantine hospitals, dedicated to deal only with severe cases of coronavirus." [38] There have also been old hospitals that have been reopened to admit COVID-19 patients, for example in Luxor, and specialized hospitals that have been temporarily converted to accommodate COVID-19 patients, such as the specialist organ transplant centre and Suez University hospital [43]. On June 18 2020, a 200-bed field hospital, the first of its kind for COVID-19 in Egypt, was opened to help make up for COVID-19 bed shortages [44]. Despite these measures, still there have been persistent complaints from patients, many of whom have taken to social media to share details of their experiences, unable to find available hospital beds for COVID-19 treatment [42].

The Egyptian government has also moved to increase and seek out additional funding for health services. By April 1 2020, the government announced EGP 1 billion (US$64 million) in extra funding for health services [36], and by May 17 2020, the World Bank approved US$50 million to support Egypt's fight against the coronavirus [45]. However, Egypt's response to the pandemic has still been hampered by shortages in PPE, and other essential equipment, as well as a lack of state-support towards healthcare workers, which has included confrontation with those who are critical of how the state has dealt with the virus [46].

F. The Role of the Private Sector

In early June 2020, a controversy erupted over the pricing of services for Coronavirus patients in private hospitals. The cap pricing was set by the Ministry of Health for inpatient care was considered unfair, leading to the chamber of private health service providers announcing its refusal to provide services at the set pricing as it would mean they would be operating at a loss. Although the ministry of health and the accreditation authority was addressed early on back in March 2020 by civil society players to engage the private sector as key stakeholders, policies relating to the role of the private sector did not fully abide by principles of good governance, at a time where the need to involve the private sector was practically urgent.

In the context of allowing the private sector to provide health services to COVID-19 patients, the following needs to be acknowledged:

a. Services provided through the private sector will increase the out-of-pocket payment directly: The WHO evaluates the level of protection from financial risks in the field of health based on two indicators: the incidence of catastrophic spending on health and the rates of individuals falling into poverty due to direct out-of-pocket payments for health. The first indicator shows the number of individuals of all income levels who suffer from financial hardship (as they spend more than 40% of their available income) due to the relatively high health payments in a certain period of time. The second indicator deals with the fact that small out-of-pocket payments may have severe consequences, especially among individuals who are already close to the poverty line. Therefore, allowing families to pay out of pocket directly to receive service from private hospitals will contribute to increasing the poverty rate in Egypt. It should also be noted that the percentage of those under the poverty line increased from 27.8% of the total population in 2015 to 32.5% in the recent income and expenditure research carried out by the Central Agency for Public Mobilization and Statistics during the years 2017/2018.

b. The state's role in fighting epidemics and providing its own health services is guaranteed by article 18 of the Egyptian Constitution. The provision of health services must be free of charge. It is considered a criminal offense to refrain from providing treatment in its various forms to every person in cases of emergency or danger to life. As we analyse the behavior of the private medical sector in moments of the pandemic, we must observe the matter within the context of how the private sector is organized. Lacking supervision or control, suffering from major monopolies fed by investors who have no concern with social responsibility, this sector has grown over more than forty years while the state's role in health protection decreased and the health insurance systems failed to protect citizens through a comprehensive cover offering quality services. This pushed many to resort to the private sector directly in the absence of real control, which made the share of the private medical sector exceeding 60% of total spending on health. It is also important to note that the medical staff members working in the private sector are themselves medical teams working in the public sector (to improve their incomes due to their weakness in the public sector).

The new health insurance scheme, through its three designated authorities, is mandated to attend to this dysfunction. By organizing and controlling the work with the private sector and its integration with the public system through new quality standards and accreditation models, fair contracting, standardized pricing and a comprehensive insurance package, the new health insurance scheme should make it possible to prevent work duplication, better organize the wasted and distracted human resources and ensure a collective good governance of the healthcare sector. It is imperative to integrate all the health capabilities that exist in the country now, whether public, private or civil, in one strategy, to confront the epidemic. Institutional channels need to be developed in order to enable such coordination. Free health service in the epidemic phase is a constitutional right for all citizens.

G. The Use of Technology and Innovation

The use of technology by the Ministry of Health is a positive initiative that shows the government's keenness to adapt to the 21st century methods and tools. The use of technology can allow relevant authorities to scale activities and conduct new ones, such as tracking mobility - having analytics, mass communication - gaining trust, nudging for prevention, eased and safer reporting of COVID-19 suspected and infected cases. It is important

however, to highlight some drawbacks, potential concerns and ways forward.

In low and middle income countries, the use of technology in policy intervention always faces the challenge that the predominant poverty would affect desired outcomes. The most recent statements claim that the government application for COVID-19 was downloaded 1 350 000 times [70]. Assuming that each download represents 1 person (which is not necessarily the case), the application now covers a little less than 1.5% of the total population. In 2019 less than 30% of the Egyptian population had smartphones [71] and the population has only grown poorer since, as shown in the country background. The application also needs the user to access the Internet to download the updated content, to communicate/report suspected cases or to seek help. Not everyone, however, and in this case the majority, necessarily has smartphones or reliable internet access because of poverty which makes this only reach the tip of the iceberg.

Moreover, it has not been shown/or communicated with the public how collected data influences decision making and policies related to mobility between governorates, curfews, openings and closures of public spaces. The app could provide valuable insights and tremendous potential for the Cabinet and relevant officials to make evidence based and data driven decisions in facing the pandemic.

It has been claimed that by some however, that individuals reported their suspected cases and needed help but received no answer from the Ministry, including a celebrity [72]. Decisionmakers can consider investing more in support systems to receive and handle more requests from the application. However, being able to answer some of these open questions might affect the direction of the use of such technology:What is the response rate? How many referrals and follow-ups were applied for people in need? How many actually accessed hospitals or the services they needed? What truths are there behind the claims that government operators tell potential patients to stay at home even though they might actually need to be hospitalized? More information about indicators, beyond the number of downloads, would allow the uses of technology to gain more trust among the population.

While the detailed anticipated effects of the application on aggregate healthcare costs and on population health remains unknown, we know that digitalisation is a key step for health systems to adapt to the needs of their populations in the 21st century. The government could start exploring how to implement this digitalisation in a manner that reduces costs and improves performance, while respecting the fact that this technology should not leave someone behind. In the case of this application, for example, it might be helpful to diversify communication outlets instead of substituting the hotline with the app. Digitalisation, however, should be accompanied by a governance plan that involves stakeholders, asking what are the needs of communities to be served, and providing more detailed information, data and indicators. Such a plan would help the government design better informed solutions, delegate to other stakeholders like civil society and the private sector, and, of course, gain further trust among their constituents.

6. Conclusion and Recommendations

Based on the analysis provided above, the following key recommendations can be provided in managing the COVID-19 pandemic, the implementation of the new health insurance law and beyond:

1. Priority needs to be given to primary health care and family medicine. These are the entry points for a comprehensive health insurance system. For example, in Kerala state in India, the success in containing COVID-19 was primarily due to work at the primary health care level. All public health activities are necessary to combat epidemics - including testing, early detection of cases and various preventive measures, that are carried out by personnel at the primary health care level.

2. Providing healthcare teams with the highest possible protection through strict scientific application of infection control measures, providing their complete requirements and setting regulated working hours.

3. Accurately applying the epidemiological surveillance system, following up the hotbeds of spread, and providing decentralized diagnostic mechanisms. Surveillance, forecasting and response programs seek to achieve effective disease prevention and control by developing norms, standards, guidelines and tools for public health. The COVID-19 pandemic clearly revealed the need to develop the preventive medicine sector and the epidemiological surveillance system. It is useful to consider the experiences of some Asian countries that have developed surveillance and investigation systems, for example, South Korea.

4. Strengthening the national drug industry, pharmaceutical scientific research, and supporting public sector companies, including the manufacture of raw materials, medical equipment and supplies. In a recent Cabinet statement, it was clearly indicated the need to accelerate the process of developing pharmaceutical industries in Egypt. It is important to open a wide societal discussion in this regard, and listen to the views of experts, manufacturers, unions of doctors, pharmacists and all those involved in developing the pharmaceutical industry.

5. Adopting a "whole of society" integrated and participatory approach to the health system reform. Moving to decentralization and local governance. The system of administration and local government in Egypt is a system that reflects severe centralization in the hands of the central executive authority with severe weakness in the localities.

6. Encouraging community participation in crisis management, raising health awareness, highlighting health success stories, and activating accountability and control tools.

7. Supporting transparency and disclosure of information to people, as everyone awaits the daily statement of the numbers of injuries and deaths related to COVID-19. Preventive measures, in order to be implemented well, depend on citizens who need information. This should include information on:

a. Infection and death rates disaggregated by governorates and regions,

b. Number of tests,

c. The needs and shortcomings that the society and communities can support the official bodies through (protective devices, ventilators...).

8. Providing and applying clear standards of infection control in health facilities and incentivizing health facilities to adopt them in preparation for their approval by the Accreditation and Quality Authority.

9. To support, encourage and cooperate with civil society initiatives and the private sector and provide them with information to carry out projects and initiatives that represent a real need in line with national priorities.

10. Carrying out the needed amendments towards the creation of an empowered high health council that includes in its formation representatives of the different stakeholders as per the proposal submitted by civil society and experts to the government in 2014.

11. Finally, one of the most important lessons learned from the pandemic is to adhere to the application of the new comprehensive health insurance law, and to work diligently to complete its implementation in its three stages, so that universal health coverage is achieved for all Egyptians without discrimination.

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8. Annex 1: Policy Interventions during the Pandemic

The table below displays highlights of the key milestones and policy decisions taken by the different government entities amid the pandemic. Data about new cases and new deaths are also displayed.

Date	Intervention Policy	New Cases	New deaths
Jan-7	19-COVID against action announced First	0	0
Jan-23	virus Corona the of spread the after China from travelers test to starts airport Cairo	0	0
Jan-25	Egypt in coronavirus of cases any detected not have We :Health of Ministry The Cairo airport tightens procedures to counter the Corona virus ... and tests China‹s passengers	0	0
Jan-26	«corona» prevent to Airport International Sheikh-El Sharm at measures Precautionary infiltration	0	0
Jan-27	COVID of because Egypt to tourists Chinese 30,000 of reservation the Cancelations	0	0
Feb-14	Egypt in case positive first of Announcement	1	0
Feb-15	the hearing a hold to «intends» Representatives of House the of Committee Health «Corona» up follow to Health of Minister	0	0
Feb-18	carrier a longer no ,recovering is Egypt in coronavirus with man says WHO	0	0
Feb-26	virus «Corona» prevent to supplies necessary purchase to agrees government The	0	0
Feb-27	«Corona» with deal to measures precautionary the following is Minister Prime	0	0
Mar-1	far so coronavirus for tested people 1,443 says Egypt The government is studying the implications of» corona «on the growth targets for the current fiscal year	1	0
Mar-2	ministry health :coronavirus new of case second detects Egypt The Prime Minister reviews the position of» Corona «in the world	0	0
Mar-4	hospitals and airports to distributed be to tests 250,000 of Purchase	0	0
Mar-5	the all with website government dedicated a of Launching ,case positive Egyptian First 19-COVID to related information	1	0
Mar-6	fears coronavirus over Qataris bars Egypt Twelve asymptomatic coronavirus cases registered on Nile cruise ship	12	0
Mar-7	on infection of focus first the to related cases of progression the details government The .Luxor in cruise Nile	0	0
Mar-8	tourist German a of 19-COVID from death First	34	1
Mar-9	.infection of sources of tracing for unit dedicated a of Launching Egypt steps up coronavirus checks after outbreak in Luxor) refer to March6 th(	6	0
Mar-10	a of usage of date announced Government .gatherings public all suspends Government .airports in minutes 30 in results yields that test-pre rapid	4	0
Mar-11	inaccurate spread who those all against actions legal announces Government Egypt in 19-COVID about information	1	0

Mar-12	students its to isolation self imposes and school private a closes education of Ministry there case positive a to exposure after parents and The Minister of Agriculture instructs to take all measures to prevent transboundary diseases and epidemics Ministry of Civil Aviation denies rumors closing air traffic at Cairo Airport	7	0
Mar-13	education of Ministry .weeks 2 for universities and schools in studies suspends Cabinet .suspended been have studies where countries in expats Egyptian of exams delays 19-COVID for fund emergency an as EGP billion 100 of Allocation	13	1
Mar-14	cases confirmed 7 after came studies of suspension announces education of Ministry school among learning distant for measures announces Government .students among students university and Ministry of manpower organizes 450 awareness seminars about" Corona "in the presence of 50 thousand workers	29	0
Mar-15	to authority the with users and workers of testing the signing :Authority transport River .«Corona» prevent The Central Bank of Egypt lowers interest rates by .3% Instructions give to banks to put off the debt payment of small and medium companies for six months ,with no fines incurred ,urging people to resort to e-payments instead of cash. Egypt announces the halt of flights from Thursday19) th of March (to stem spread of coronavirus.	1	0
Mar-16	temperature the measures and fingerprint electronic the eliminates planning of Ministry visitors and employees of	40	0
Mar-17	public in working employees government of number the lower to decides Cabinet including industries promote to measures of series a announces Government .offices announces Government .cuts tax and industries for prices electricity and gaz of lower Egypt in performances movie and live all of halting	46	2
Mar-18	.curfew potential a of enforcement the in involvement its of claims denies Army Egypt detains women who called for prisoner release amid coronavirus ,lawyer says.	0	2
Mar-19	down shut to Decision .weeks two for airports Egyptian from flights halts Government (31 March Until) weeks 2 for pm 7 from starting centers shopping and restaurants Cairo Airport deposited the last international flight ,and the continuation of domestic flights and the transport of goods. and an expanded sterilization campaign for the airports during the suspension period. Egypt to shut all cafes ,malls ,sports clubs in evenings from 7 p.m .until 6 a.m .local time every night until March.31 200 million pounds as additional credit for advanced medical equipment for the Ministry of Health. Egypt moved to cut the number of public sector employees reporting to work in an effort to discourage crowding and slow the spread of the disease. The 4 women released ,and state TV and a judicial source reported that 15 members of political movements had been ordered released from jail. The Ministry of Health conducts detection tests of Corona for members of the cabinet. The government denies the cancellation of the second semester of schools and universities.	60	0
Mar-20	at remain to «Omra» for Arabia Saudi from returning those all requests Government .professionals medial 2 of recovery announced First .weeks 2 for home Taxes Authority constitute central operating rooms to follow up on the consequences of the Coronavirus.	29	2

Mar-21	in prayers collective and prayers friday cancel to decides affairs religious of Ministry university delays councils education Higher .prayers for call the alter to and mosque exams	9	2
Mar-22	government of support announcing coronavirus on comment first s‹presidency The .announced be to measures »The Ministry of Finance to allocate LE 100 billion to confront the Corona virus. The Ministry of Finance to allocate LE 100 billion to confront the Corona virus. Reducing the price of natural gas for industry by.4.5 $ Reducing electricity prices for industry by 10 piasters. Allocating LE 20 billion from the Central Bank to support the Egyptian Stock Exchange. Postponing the credit entitlements of small ,medium and micro enterprises for a period of 6 months, Not to apply additional fines or returns on late payment. Allocating an amount of 50 billion Egyptian pounds for real estate financing for middle-income groups through banks. Addressing the tourism financing initiative to include the operation of hotels and financing their current expenses by an amount of LE 50 billion ,in addition to reducing the cost of lending for this initiative to.8% Tourism Development Authority monitors implementation rates for projects under construction during the third quarter of the current fiscal year to identify the impact of the Corona virus on the construction plans schedule«.	33	4
Mar-23	.pm 5 at shops of Closure .pm 7 from measures curfew announces Government .cafés and restaurants all of down Shut .outlets services government all Stopping	39	5
Mar-24	purchase to health of ministry the to EGP billion 1 of allocation announces Cabinet equipments protective Egypt declares two-week curfew to counter coronavirus from 7 p.m .to 6 a.m) from tomorrow Wednesday 25 March.(Flights ,which were suspended at Egyptian airports on March 19 until the end of the month ,will remain grounded for an additional two weeks until April.15 A closure of schools and universities will also be extended to mid-April ,while cafes, sports clubs and gyms will be shut for the next two weeks and restaurants will be restricted to deliveries. Shops other than food stores and pharmacies will be required to close from 5 p.m ,.two hours earlier than previously ,as well as at weekends. The House Plan and Budget Committee ,the largest part of the 100 billion pounds allocated to counter the» Corona «virus ,will be provided from the current fiscal year budget. Egypt's central bank introduces new measures backing tourism sector El-Sisi :I call on the Egyptians to fully comply with the government‹s decisions to confront Corona El-Sisi instructs the government to take additional precautions to achieve the safety of the Egyptians	36	1
Mar-25	curfew time-night coronavirus for shuts ,sleeps never that city the ,Cairo	54	1
Mar-26	one of maximum a with «Corona» treat to projects research funds University Cairo research per pounds million	39	3

Mar-28	to due bills gas and water ,electricity of payment postpone to demands Parliamentary .“Corona” Minister of Social Solidarity Nevine Al-Kabbaj revealed on Saturday ,March28 th ,that the ministry will add 80,000 to 100,000 families to the Takaful and Karama benefit programmes in order to better equip them to face the financial burdens caused by the Coronavirus .The programmes are expected to benefit a total of 3.5 million families nationwide) around 10 million citizens ,(with their allocated budget rising to EGP19.3 billion.	40	6
Mar-29	.sector private the for wage minimum the of approval the «postpones» Corona Parliamentary demands to cstop mobility between governorates to control the spread of Corona. Egypt‘s Central Bank sets new daily cash deposit and withdrawal limits amid COVID19-outbreak) The Central Bank of Egypt fixed a daily limit of EGP 10,000 for individuals and EGP 50,000 for enterprises ,on withdrawals and cash deposits from bank branches .In addition ,it set a limit of EGP 5,000 for cash deposits and withdrawals from Automatic Teller Machines) ATMs.(This measures will be applied until further notice in order to avoid overcrowding in banks. Fees on electronic transactions have been suspended for six months to encourage people to use electronic payments methods and bank transfers(.	33	4
Mar-30	outbreak coronavirus during reserves food strategic of boost for calls Sisi s‹Egypt	47	1
Mar-31	complaints Karama and Takaful for portal-e launches Ministry Solidarity Social	54	5
Apr-2	the support to loans international obtain to measures approves government The Corona confront and economy	86	6
Apr-7	for units isolation into dorms and hotels ,hostels university use to decides Government .symptoms clinical mild with those Egypt to ban Ramadan gatherings to counter coronavirus) Ramadan starts April.(23	128	9
Apr-9	government The» :published was Rights Personal for Initiative Egyptian the by report A the of spread epidemic the prevent to homes their in stay to citizens on calls even ,interrupted be not sector contracting the in work that insists but ,Coronavirus to agreed also It .2021 to postponed was projects national of opening the though private the for As .curfew the from sector private industrial the in workers exclude the to agree not did and ,closure complete the delaying on insist they ,companies sector of number the reducing or sectors vital-non in operating factories of closure temporary «.subsidiaries its and sectors the in did government the as ,shifts »Minister of Housing :«monitoring the quality of drinking water on a daily basis within the plans to confront» Corona«	139	15
Apr-10	tackle to savings the of part avoided and piasters 25 by prices oil cuts government The Corona	95	17
Apr-11	video through hospitals isolation 4 of personal medical with meets health of Minister (daily continue to) conference	145	11
Apr-14	«health s‹Egypt» application mobile the launches Health of Ministry	160	14
Apr-15	to related questions of number whatsapp dedicated a announces health of Ministry .support their for sector private and society civil thanks Minister The .19 COVID The Ministry of Planning and Economic Development launched an digital awareness campaign under the slogan” Your country is in your back» “.to educate citizens ,the private sector ,and the public about all the policies and measures taken by the Egyptian state to confront and protect against the effects of the emerging Coronavirus«.	155	5

Apr-16	equipments Protective containing China from shipment a announces health of Ministre the of line production the upgrading in support s‹China and equipments testing and day per 100,000 reach to Egypt in facility production masks main	168	13
Apr-19	the by used protocol treatment and diagnosis standardized a to refers health of Ministre ministry	112	15
Apr-21	is which unit tracing infection the about details provides health of Ministre include that members team 17439 of made wide nation teams 5813 of compromised dentists and pharmacists ,doctors	157	14
Apr-22	and Square Tahrir s‘Cairo on stood Amashah Mohamed student medical of Detention .“prisoners for Freedom” saying sign a up held Egypt‘s parliament approved amendments to the country‘s emergency laws that give expanded powers to the presidency and the military prosecution as authorities try to counter the new coronavirus outbreak .The amendments allow the state to take and enforce a series of measures ,some of which have already been deployed to curb the spread of the coronavirus .These include suspending schools ,banning public or private gatherings ,quarantining returning travelers ,prohibiting the export of certain goods and placing restrictions on the trade or transfer of commodities ,according to a parliamentary report on the amendments. The state will also be allowed to direct private hospitals and their staff to help with general healthcare for a specific period ,and to convert schools ,companies and other publicly -owned sites into field hospitals.	169	12
Apr-23	and ,far so out carried been have tests PCR 90,000 announces health of Ministre 19-COVID the in involved professionals medical 900 ,labs PCR 27 ,tests rapid 200,000 .Ramadan during implemented be to measures announces Government .management First day of Ramadan. Egypt loosening some lockdown restrictions for Ramadan ;by allowing more businesses to reopen and shortening a night-time curfew ,coronavirus toll rises) COMPARE WITH APRIL ,(7 starting 24 April ,the curfew will start at 9 p.m .instead of the previous 8 p.m. and run until 6 a.m .But mosques will remain closed and any public religious gatherings will still be banned.	232	11
Apr-24	.coronavirus from safe prisoners American keep to Egypt urges Pompeo The Cabinet :The state is keen to provide all the actual needs of hospitals.	201	7
Apr-25	,far so patients 900,000 received have hospitals fever 47 announces health of Ministre in beds care intensive 227 and beds 4258 with average daily a as patients 15,000 with hospitals these	227	13
Apr-27	coronavirus fight to help IMF seeks Egypt :‘steps Proactive’	248	20
Apr-28	are they if hospitals chest or fever to head to patients urges health of Ministry fears security ,virus on emergency of state extends Egypt .contamination suspecting	260	22
Apr-30	therapy transfusion Plasma on trials started has Egypt announces health of Ministry	269	12
May-4	among patients for database updated an of creation the announces health of Ministry .sites isolation and labs ,hospitals its Measures from the Egyptian Medicines Authority to support the local market	348	7
May-5	Mosque Ali Muhammad in tour virtual a organizes Antiquities &Tourism of .Min s‹Egypt	388	16
May-6	of sterilization and disinfection the for pounds million 950 :Education of Minister The halls exam school high the	387	17
May-7	Ramadan of end until curfew nighttime nationwide extends Egypt	393	13
May-8	19-COVID against measures public and curfew on Updates	495	21
May-9	council health high a forming in interest expresses minister Prime	488	11

May-10	Egyptian the on corona of impact the reduce to measures 14 takes bank central The economy	436	11
May-11	ban comprehensive a imposing proposes health of ministry the of Committee Scientific holiday Fitr-al Eid on	346	8
May-13	clear have We" - outbreak virus amid desert the in capital new with on presses Egypt is opening the of postponement the that president the excellency his from instructions ".time on running is project The"…",project the to delay a not	338	12
May-16	respecting while and way limited a in activities hotel of Resumption :Minister Tourism measures some	491	20
May-17	holiday Eid for restrictions coronavirus tightens Egypt Egypt will bring forward the start of its curfew by four hours to 5 p.m .and halt public transport from May 24 for six days during the Eid holiday ,as it seeks to curb the spread of coronavirus, Shops ,restaurants ,parks and beaches will be closed for the extended holiday at the end of the holy Muslim month of Ramadan ,and restrictions on citizens 'movements will remain in place for at least two weeks afterwards Madbouly suggested there could be a gradual reopening of some venues including sports clubs and restaurants from mid-June .A reopening of places of worship would also be considered. After Eid ,the curfew will last from8 pm6-am ,as it did before Ramadan. Anyone entering enclosed spaces with other citizens or taking public transport will be required to wear a mask ,Madbouly said ,adding that the government was working on producing washable masks for general use. Egypt receives new batch of anti-coronavirus medical aid from China ;Turkey‹s COVID19-cases surpass148,000	510	18
May-19	30 May of as feast the following 19-COVID against measures announces Government .days 15 for and	720	14
May-20	hospitals general all in testing coronavirus offer to Egypt	745	21
May-21	"confront to pensioners of 0.5% and income' employees the of 1% deduct to law draft A ." Corona Ministry of Youth and Sports develops medical preventive measures for resumption of sporting activities	774	16
May-24	government 320 among provided being now are services announces health of Ministry nationwide hospitals	752	29
May-25	,teams medical the on risks the and pandemic the against warns union medical The of series a announces Government .collapse to system healthcare the threatning all in wards isolation dedication including ,personnel medical protect to measures the to According .equipments protective of supply sufficient a of provision ,hospitals .died them of 11 ,personnel medical among detected were cases positive 291 ,ministry 1180 of total A .them to done were tests PCR 8913 ,tests rapid underwent 19,578 its since professionals medial for hotline dedicated the on received were requests healthcare at available made PPEs of amount the details also statement The .launch .facilities	702	19
May-27	costs about worries ,masks wearing on law	910	19
May-28	that site a approaches one if alerts send to updated application "Egypt of Health" The infections corona has	1127	29

May-29	in masks protective wearing not those to fine EGP 4,000 a announces Government oversees minister Prime .5pm of instead 8pm at start to curfew reduces ,places public change a marking ,isolation home undergoing cases to medication dispensing of process university in isolation of instead cases mild for isolation home to resort to protocol in .hostels and dorms Ministry of health warns against inaccurate treatment protocols being disseminated and announces a dedicated COVID 19-app. Medical teams state they are muzzled in Egypt's coronavirus response.	1289	34
May-30	.‹Economy operating-Re :19-COVID› of issue 1st publishes IDSC »Youth Minister ,medical committee probe resumption of sporting activities.«	1367	34
May-31	its since users million a exceeds application «Health s‹Egypt» The : Health of Ministry April last launch Osama Haykal ,the Minister of State for Information ,confirmed :The government is working in an integrated and solidarity manner with regard to the Corona crisis ;He pointed to its complete eagerness to provide information to citizens in a timely manner, and that the government is the reference in relation to all information in this regard. Prime Minister ,Dr .Mustafa Madbouly ,instructed to set regulations for private hospitals that have started to participate in treating citizens of the Corona virus ,including a specific ceiling for the cost of treatment.	1536	46
Jun-1	.official CBE - decision s‹cabinet with line in hours working ‹banks Extending Government officially announces for the first time a geographical distribution of cases among governorates	1399	46
Jun-2	far so «health s‹Egypt» of application the to subscribers million 1.2 :Health of Ministry	1152	47
Jun-3	the to refusal its announces providers service healthcare sector private of Chamber halting and government the by imposed management 19-COVID for pricing mandatory services all	1079	36
Jun-4	clinics site-on with tourists domestic over win hotels s‹Egypt	1152	38
Jun-6	calls and trials transfusion Plasma the of success announces health of Ministry .plasma donate to cases recovered Minister of Health» :Prices of private hospitals for treating patients with corona are exaggerated.« Dr .Mustafa Madbouly ,Prime Minister ,presented a report from the Information and Decision Support Center of the Council of Ministers ,which included the most important efforts and government measures to confront the emerging Corona virus within100 days of the virus‹s presence in Egypt.	1497	32
Jun-11	of installment second the of value total the ,pounds million 800 :Manpower of Minister .grant employment irregular the Minister of Information» :The start of tourism and aviation in the governorates that are less affected by» Corona ««at the beginning of July.	1442	35
Jun-12	of types all of awareness full a conduct to days within begins manpower of Ministry The Corona confront to activities economic with employment	1577	45
Jul-12	license health needed the hotels 535 granted has it announces tourism of ministry The operate to	912	89
Jul-13	taking while capacity full at operate to starting is it announces health of Ministry precautions preventive necessary	931	77

Jul-14	Alexandria in hospital isolation second the of closure announces health of Ministry .patient last its of recovery the following The ministry of health announces it has only 111 COVID 19-patients on ventilators Hotels and resorts owners request the government to increase the maximal capacity allowed from 50% to 75% following their operations for 2 months without recorded cases	929	73
Jul-17	,plasma their donate to patients recovered for easier it makes health of ministry The .recovery the of days 15 following PCR second a for need the cancelling	703	68
Jul-19	vaccine the of doses million 30 ordered-pre has it announces health of minister The Egyptian the that and Zenica Astra and university Oxford by production in currently purpose that for line production its preparing is VACSERA authority production vaccine	603	51
Jul-21	the to drug 19-COVID anti its putting is it announces company pharmaceutical Egyptian of approval the received has Rameda - Remedisevir drug The .2020 September in market 2020 June in Authority Drug Egyptian the	676	47
Jul-22	september mid by cases new 0 projects health of ministry The	667	41
Jul-29	These .period Eid during applied be to measures preventive the announces Cabinet while midnight till restaurants and cafés ,pm 10 till stores and malls of opening include .period Eid after notice further till closed beaches and parks public keeping	409	37
Aug-7	hours 72 withing done ,result negative a with test PCR mandatory a announces Cabinet direct of exception the With .country the entering for required is Egypt to arriving before .abroad living Egyptians and airports Sea Red in landing flights	141	20
Aug-11	pharmaceutical Egyptian 61 from tabled requests approves authority Drugs Egyptian The drugs 19 covid-anti produce to companies	168	24
Aug-12	minister The .winter during virus the of wave second potential a of mention official First university in wave second potential a for preparations discussed education higher of .hospitals	129	26
Aug-13	the managing in government the of performance the evaluates planning of Minister pandemic 19-COVID	145	22
Aug-17	the for Bank World the from loan USD million 50 a approves parliament Egyptian The .response pandemic 19-COVID The Egyptian parliament approves a donation of 1 million Kuwaiti Dinars for the COVID 19-pandemic response from the Arab Fund for Economic and Social Development The cabinet puts a plan for a potential second wave during winter .Nothing specific announced regarding return of schools.	115	13
Aug-23	were who buses public of drivers 2865 against actions legal takes interior of ministry The masks wearing not caught	103	19