

Management of COVID-19 Pandemic in Morocco: Lessons learned.

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Abstract

The COVID-19 pandemic had a major impact all over the world. The management of this crisis in Morocco shows the full commitment of several acting members in our society which is a true image of leadership in both economic and health fields.

Introduction

The Coronavirus 2019 (COVID-19) pandemic is exercising tremendous stress on the world's societies and health care systems. Morocco is the third most affected country by COVID-19 on the African continent. However, there are ten times fewer deaths reported than in France (29.111 deaths), Italy (33.774 deaths), or Spain (27.134 deaths) [1]. Facing this global health crisis, Morocco has rediscovered its potential and has made its leadership in the economic and health fields envied in this area and in the continent.

It should be pointed out that Morocco is one of the most well-integrated countries in the global economy in its region, especially with partners such as France, Italy, Spain, and the USA, currently the most affected countries worldwide.

It is important to understand that efficiency in the management of the crisis referred to was not a matter of choice but an absolute necessity for several reasons. The first reason lies in the limited means available in Morocco for healthcare management, the limited number of intensive care beds, and the insufficient number of doctors per inhabitant. There are 7.3 physicians per 10.000 people [2] compared, for example, to France where there are 34 or Germany with 38.9 or Italy where there are 37.6 physicians per 10.000 people [3]. Likewise, for intensive care beds, there are slightly more than 1,610 beds. This means only one thing: we did not have the necessary means of mishandling this epidemic. From the very beginning, a preventive approach has been adopted. Instead of waiting for phases 2 and 3 to happen, the Moroccan government took drastic measures with immediate effects, progressively adjusting them in order to secure public adoption and gaining time to acquire the logistical means to tackle the COVID-19 pandemic. On March the second, Morocco confirmed the first coronavirus case and by March 15, international transport links were shut down.

On March the 19, 2020 in a press release, Interior Ministry declared: *"In order to preserve the health and safety of the Moroccan society and in a spirit of responsibility and national solidarity, and after noticing the contamination of citizens residing in Morocco by the new*

coronavirus, it has been decided to declare a state of health emergency and to restrict movement as of Friday at 6:00 p.m. until further notice". In this regard, the movement was authorized only for people whose presence at the workplace is necessary and will be conditioned by the issuance of a certificate duly signed and stamped by their managers at work, as reported in the same press release.

Right from the start, there have been awareness campaigns throughout the kingdom to inform and educate citizens in didactic manners that police forces aim to help and serve rather than keep them from going out or punish them. It is a caring face that the authorities have displayed naturally meeting with widespread solidarity all over the country.

Morocco has also revisited a certain number of important concepts. A couple of months ago, everyone was promoting the benefits and advantages of free exchange and globalization. Instead, everyone is now becoming protectionist. It is interesting to see that ideological debates have been overshadowed by practical realities. In fact, efficiency is only the outgrowth of pragmatism.

Our country has launched the largest field hospital in Africa [4], which was completed in less than two weeks, with a capacity of more than 700 beds. Today Morocco showed its ability to manage this health crisis thanks to the large availability of masks at a very low price. This has in fact been possible thanks to the government getting in touch with companies in the industrial and textile fields and looking for opportunities to produce masks that meet medical standards. Soon, textile industries were converted and reoriented towards a rather medical textile with the guidance and help of doctors, demonstrating real flexibility and genuine versatility.

These masks are inexpensive for one simple reason. From the very beginning, a special fund was created to manage the COVID-19 pandemic, this fund received donations from private and public companies as well as from businessmen and institutions, which allowed us to collect 34 billion dirhams in a very short period of time [5]. Thanks to this fund, the state finances the production of the masks

among other things, and we have reached a daily production volume of 7 million masks, and soon we will be able to produce 8 million masks.

This was a political choice. We are getting back to the idea that when politics decrees, the administration will eventually follow. The truth is the political intent in most countries that fail to produce masks is clearly lacking. The result seems to indicate a form of laxity, indecision, and inability to manage resources.

For locally manufactured respiratory devices, it comes down to pooling efforts and skills. Currently, it is still in the experimental stage. Scientists and biomedical engineers are still trying to develop a more complex device, but once again time scale of research and crisis are not the same. This has not discouraged Morocco from buying respiratory equipment abroad to increase the capacity of the intensive care units and this is an aspect of the Moroccan economy that has been overlooked for decades. One can see that it is actually possible to bring together talented people, engineers, designers, and different companies to produce a local device, a very fine first step for Morocco.

Another example of this political determination in action took shape when some companies lost half of their turnover during this crisis compelling them to dismiss workers due to a drop in activity caused by the pandemic. These officially registered workers were indemnified at the expense of the government with 2000 DHs (about 204 USD). As for non-registered workers, they received smaller compensation with 800 to 1,200 DHs (about 81 to 122 USD) based on household size. Tax charges and credits were also deferred for both companies and households, again with the aim of helping citizens, ensuring a minimum amount of money to avoid a monetary desert for the lower social strata and an implosion of solvent demand.

Therefore, the Moroccan model is nothing more than a demonstration of the vertical aspect of power, which makes politics once again decree and the administration reacts to it. It is clear that in these times of crisis, what is relevant is the national dimension which is sufficiently embodied to be able to mobilize all the resources to help the population.

In the meantime, the Moroccan authorities have made wearing masks mandatory. Today, Moroccan citizens are required to wear masks or they may face charges as precautionary and preventive measures. They are also required to respect containment. It is indeed a draconian method but it took place gradually involving cafés and restaurants at first, then schools and hammams, and later on, mosques. Evidence supporting the cancellation of mass gatherings exists. Saudi Arabia's suspension of the Umrah pilgrimage has been the most painful figure of trauma for all stakeholders. By looking into religious aspects in times of lockdown, Islam recommends through hadiths of the Prophet Mohammed (may peace and blessings of Allah be upon him) in case of an outbreak of epidemic or plague pandemic that people must, by all means, avoid leaving their homes and for those outside villages or cities to remain back behind towns walls. By recommending

handwashing as a barrier measure against the virus spread, the WHO is simply describing one of the most basic and elementary aspects of a Muslim's daily life, as one is required to wash his/her hands before every meal and every prayer (five times a day in ablution). Clearly, we are witnessing here Islam's practical approach to pandemics explaining maybe why Moroccans have been so supportive of the COVID-19 pandemic.

Unlike what many occidental observers believed, the decision of closing down mosques was widely welcomed and embraced across the country, indicating a clear understanding of the rationale behind this matter as allowing mass gatherings under these circumstances has the potential to endanger millions of citizens. Actually, there was a handful of people who protested against the closing mosques issue, but they were immediately met with outrage and disapproval by the overwhelming majority of the population itself.

On the other hand, curative methods have also been adopted as suggested by Professor Didier Raoult even though clinical trials have not been conclusive. From March 22nd, 2020 the government requisitioned all stocks of chloroquine in Morocco in order to draw up a protocol to treat patients. In fact, a dual-therapy treatment was started at a very early stage and this protocol included Chloroquine and Azithromycin. The fact is that Morocco has not fallen into the trap of ideological struggles and conflicts of interest that France has experienced. One can either choose between two things, dual therapy or nothing. Faced with nothing, Raoult's protocol seemed to be promising.

The National Medical Commission of the Ministry of Health declares that it is not against research but we have rather favored what is commonly known as observational science and the results seem very interesting. What is interesting to point out is when the protocol was adopted on March 22nd, 2020 by April 9th, we could see a flattening of the curve of cases of deaths and a great increase in the curve of cured cases. Once again Morocco has displayed an example of realism by adopting the most reasonable choice, and we are very pleased to see an actual improvement in Morocco's current situation. Nevertheless, we must remain cautious while analyzing data, especially when it comes to a number of confirmed cases, as Morocco is faced with limited testing resources as we do not have the means to set up mass testing as in Germany, for example. But what is measurable is the number of deaths and the number of recoveries, in which case the results are very satisfactory and encouraging as we count 8132 total cases, 7278 recoveries, and only 208 total deaths which represent 2.55 % of all confirmed cases of COVID-19 in Morocco according to the last reports [1].

Although coronavirus is a global pandemic that affects human life without any consideration given to nationalities or ages, its actual magnitude seems to be largely determined by the rapidity by which local actions have been initiated to respond to the outbreak and to enforce existing policies.

Credit Authorship Contribution Statement

Salma Mrichi: Conceptualization, data collection, paper preparation, writing;

Mohammed Yassaad Oudrhiri: Conceptualization,

Mahjouba Boutarbouch: study design;

Adyl Melhaoui: study design;

Yasser Arkha: Validation, review & editing.

Abdessamad El Ouahabi: Validation, Writing - review & editing.

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