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# COVID-19 Vaccination in the Time of Austerity: How and for Whom?

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## Arab Reform Initiative

The Lebanese (caretaker) government has failed to provide a comprehensive strategy on the management of the COVID-19 crisis, despite several calls to inform people about the various decisions to halt the spread of the virus and mitigate its impact on mortality and morbidity. Instead, people have been left guessing and outguessing their policy-makers about their decision-making process. As the world begins rolling out vaccination, it is essential to demand from the (caretaker) government and the Ministry of Public Health (MOPH) more transparency regarding their strategy for the COVID-19 immunization campaign.

Although the MOPH has claimed to work according to World Health Organization (WHO) recommendations, it has ignored one of its most important guiding principles: open and inclusive decision-making.<sup>1</sup> A new commission within the MOPH to supervise the vaccination campaign was created.<sup>2</sup> However, as with all the other commissions created to manage this pandemic, its membership, prerogatives, and mandate have not been made public. And while the MOPH seems to have allowed pharmaceutical companies to import COVID-19 vaccines approved by the WHO and the US Food and Drug Administration (FDA),<sup>3</sup> it is not clear how many doses will be available, at what price, and how they will be distributed, including logistics and prioritized populations.

The lack of transparent public health decision-making is especially worrisome in Lebanon given the lack of trust in public authorities, the privatization and politicization of healthcare (with hospital access often dependent on clientelist political/sectarian networks), and the fear that the current political class will use any leverage it has to strengthen its hold on the population.<sup>4</sup> Hence it is not surprising to learn that a number of Lebanese doctors are now concerned about the “politicization” of vaccines, which may end up being distributed on a clientelistic basis; with politically-connected individuals, communities or political parties receiving vaccines before these can reach the most vulnerable populations.<sup>5</sup> In addition, given the dire economic conditions, there is a real need to communicate the government’s strategy when it comes to purchasing and distributing the vaccines to avoid a situation where individual purchasing power determines access to the vaccine.

Accordingly, there is an urgent priority to adopt a more open, inclusive, and transparent process, which entails at the very least “communication of clear

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rationales and uncertainty, and making evidence publicly accessible.”<sup>6</sup> In the case of Lebanon, and given the current challenges of the country, more transparency is needed to address the following issues:

- How will MOPH decide which vaccines are safe for use?
- Who will be the priority groups for the country’s vaccination strategy? How does the MOPH aim to achieve herd immunity? How will the vaccination strategy take into account the uncertainties of Lebanon, notably the absence of reliable data on the population as well as the presence of large numbers of refugees and migrants?
- Given the economic crisis, how does the government propose to purchase the vaccines, how will it finance this mass procurement and how will it make the vaccine available to the population? Will it regulate the prices to avoid a new black market of pharmaceutical products?
- Who will administer the vaccines? How will the coordination of vaccine purchases and distribution work between the MOPH, the private medical sector, and the UN agencies that care for refugees?

Below, we address these questions and provide some answers.

### Which vaccines to choose?

Amid the vaccine frenzy, the media has reported that the government has struck a USD 18 million deal with Pfizer/BioNTech to purchase 1.5 million doses of their vaccine,<sup>7</sup> and that it has applied to receive vaccines from COVAX, a global alliance platform funded by the WHO, the World Bank, the Gates Foundation, and other high-income country donors that guarantees the supply of WHO-approved vaccines for 20% of a country’s population to its lower-income and middle-income country recipients.<sup>8</sup> The government is also reportedly negotiating with the Russians about their Sputnik V vaccine;<sup>9</sup> nothing is known about negotiations for other potential vaccines.

Given limited supplies, countries will end up relying on an array of vaccines, but the public should be made aware of both the evidence and the unknowns of each vaccine. In particular, the authorities should explain their approach to Russia’s



Sputnik V and China's Sinopharm vaccines. While the WHO has not yet approved these vaccines pending phase 3 trial results,<sup>10</sup> the Chinese vaccine is being rolled out in the United Arab Emirates and other Arab countries (notably Jordan).<sup>11</sup> Given the notorious lack of transparency in both Russia and China, these vaccines, in particular, might be met with suspicion and resistance, a formidable obstacle now facing governments around the world. Indeed, based on social media surveys, a substantial proportion (79%) of the Lebanese population is showing hesitancy towards the COVID-19 vaccines, which correlates with vaccine hesitancy in general.<sup>12</sup> Efforts will thus be necessary to convince the population about the beneficial effect of the COVID-19 vaccine and its ethical entanglement.

### What vaccination strategy?

Any country's vaccination strategy needs to tackle two key questions: what is required to achieve herd immunity and who to prioritize for vaccination. On both these counts, Lebanon's authorities have not communicated much.

### How will Lebanon achieve herd immunity?

One of the purposes of vaccination is to create so-called herd immunity, a euphemism to refer to protection for the entire population. In any given population, some people cannot be vaccinated or do not mount an immune response despite vaccination. In the case of COVID-19, these include people on certain treatments that weaken immunity (such as chemotherapy), people with compromised immunity for other medical conditions than cancer (such as HIV/AIDS), pregnant and breastfeeding women, and children (less than 16-year-old for the Pfizer/BioNTech vaccine or less than 18 year old for the Moderna vaccine).<sup>13</sup> Fortunately, however, if enough people are vaccinated, and if vaccination prevents not only the development of disease but also infection itself (which is still unclear in the case of COVID-19), transmission of the SARS-CoV-2 virus that causes COVID-19 can be interrupted and the incidence of the disease can fall for the entire population. Accordingly, vulnerable people depend on the rest of the population to be vaccinated to be indirectly protected, hence the importance of collectively



created “herd immunity”.

With a virus reproduction number of 2.5-3.5 (one index case transmitting the virus to around 3 people) and a vaccine efficacy of about 95% (for Pfizer/BioNTech and Moderna), epidemiologists have estimated that 75% of a population will have to be vaccinated to achieve herd immunity (regardless of the demographic characteristics of the population).<sup>14</sup> With less efficacious vaccines, as is the case with the much cheaper AstraZeneca/Oxford vaccine, for example, more than 90% of the population will have to be vaccinated to achieve herd immunity. As many scientists have noted, these calculations become more complicated if vaccine-related protection turns out to be short-lived, due to a gradual decrease in the induced immunity or additional viral mutations resistant to the vaccine. Given these uncertainties, it is crucial to maintain a transparent public message and strategy about what we know and what we don't and emphasize the importance of maintaining preventive measures (such as masks, hand washing and physical distancing).

But what is the target population needed to achieve the herd immunity threshold in Lebanon? One of the complications is the lack of accurate data on the real number of those residing in the country. As is well known, this number is at best impressionistic since no official census has been conducted since 1932. The number ranges from 4 million to 9 million, with an often-cited number of 6.5 million, being currently at 6.8 million according to the World Bank,<sup>15</sup> including allegedly 1.5 million Syrian refugees. All these numbers are imperfect since they are based on a triangulation of data rather than a real census.

It is important to have accurate demographic numbers because epidemiological indicators depend on them. Without such accurate data, policies are bound to be flawed even with the best political will, and public money is bound to be wasted. Vaccines are a case in point. While the details of the deal between the Lebanese government and Pfizer/BioNTech have not been made public, the press has reported that around 1.5 million doses have been secured,<sup>16</sup> but since the latter vaccine requires two doses to be highly efficacious, this means that only 750,000 people will be covered. Adding the additional COVAX doses, Lebanon's vaccination drive could reach a total of about 2 million people.



However, this target set by MOPH is far from the ideal number needed to achieve so-called herd immunity through vaccination. Indeed, if we assume a population of 4 million (most likely an underreported number), the target of 2 million people vaccinated amounts to 50% of the population. This falls short of the 75% threshold to reach herd immunity with the Pfizer/BioNTech vaccine. If we assume a population of more than 6 million (more likely accurate), the targeted population gets farther and farther from the ideal number to achieve herd immunity. This begs the question as to how the authorities aim to achieve herd immunity. If herd immunity is not achieved, then we are left with wasted funds and a wasted vaccination campaign. Why? Because the more the virus circulates, the more it will mutate and the less efficacious the vaccine will be. In the meantime, more people would have died unnecessarily and many more would be left with long-term morbidities (what healthcare experts have dubbed "long-Covid")<sup>17</sup> that would add additional burdens on an already overwhelmed and precarious healthcare system.<sup>18</sup>

A new census is clearly needed to improve future decision-making in public health and policymaking, more generally. However, many consider this to be a politically complicated endeavour. Some argue that a new census would disturb the current sectarian configuration, that is the distribution of political and administrative seats according to the various sects' representation.<sup>19</sup> While there are many issues with this argument, which go beyond the scope of this paper, one way of circumventing this "worry" would entail conducting a demographic census that omits religion. This is neither unprecedented nor hard to accomplish. Censuses can be adjusted to the national will, as is the case in the United States<sup>20</sup> or in France, where it is illegal to conduct statistics about "ethnicity" (with very few exceptions).<sup>21</sup> Why not design a census that would not ask questions about religious affiliations? While we recognize this to be a medium/long term goal given the time any census requires to be completed, more immediate solutions should be given more attention at this stage, given the prevailing challenges due to the pandemic. One possible quick fix would be to have municipalities and local authorities help generate a more accurate denominator by regularly assessing their populations' characteristics.



# Who to prioritize for vaccination?

The WHO, together with the Strategic Advisory Group of Experts on Immunization (SAGE), has published a “roadmap” to inform governments about COVID-19 vaccine implementation, allocation, and prioritization in the setting of limited resources.<sup>22</sup> However, like with all WHO documents, these are “guidelines” and each country is expected to design and implement its own rational, fair, and clear plan regarding vaccination.

It has been reported in the press that the MOPH’s commission on vaccines will proceed by providing the vaccines to the most vulnerable people first.<sup>23</sup> This group should include healthcare workers and first responders, the elderly (people more than 75-year-old), and people “at risk” (i.e., with underlying medical conditions that are correlated with higher mortality from COVID-19). Nevertheless, it is not known how this distribution will proceed, especially given the logistic challenges associated with the Pfizer/BioNTech vaccine that needs to be stored at -80 degrees Celsius.

It has also been reported in the press that UN agencies will be covering vaccines for the refugees.<sup>24</sup> However, it is still unclear if the UN intends to cover the total population of refugees (estimated at 1.5 million), when the vaccination roll-out will be implemented and how it will be coordinated with the efforts of the Lebanese government to avoid any further tensions between the refugees and an increasingly aggrieved and impoverished Lebanese population. We are yet to hear from the UN about its plan to protect this uniquely vulnerable population and the Lebanese population, indirectly.

## How will Lebanon fund the vaccination campaign?

It has been reported that the World Bank would provide financial support for the purchase of 1.5 million doses from Pfizer/BioNTech.<sup>25</sup> This will be made through a loan from the World Bank.<sup>26</sup> Yet, as argued earlier, the 1.5 million doses would merely cover 750,000 people. If we assume a total resident population of 7 million people, the total cost to meet the 75% herd immunity threshold will require USD



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37.8 million for the AstraZeneca/Oxford vaccine (USD 3 per dose) or USD 126 million for the more expensive Pfizer/BioNTech vaccine (US 12 per dose).

These are significant sums that would probably require more financial support from the World Bank, the United Nations (to cover the 1.5 million refugees mentioned below) and possibly private-public partnerships. Indeed, some private hospitals have suggested to purchase vaccines at their own expense to vaccinate their own employees.<sup>27</sup> Given the disastrous financial situation in Lebanon, such endeavours will be life-saving while accelerating the vaccination process. However, it should be emphasized that these individual purchases will have to be strictly regulated.

Finally, it is crucial for the government to make publicly available both the procurement contract with Pfizer/BioNTech (and other manufacturers) and the parliamentary discussion on the law that will be passed regarding liability issues associated with the vaccines. Manufacturers do not agree to ship vaccines without liability protection.<sup>28</sup> In addition, in the United States, for instance, the Public Readiness and Emergency Preparedness Act provides manufacturers total immunity from lawsuits related to injuries caused by vaccines.<sup>29</sup> MP Assem Araj, head of Lebanon's Ministerial Health Committee has revealed that the parliament had to "enact a quick law to obtain the vaccines on time," that the manufacturers would bear the responsibility for any manufacturing defect and that the Lebanese state would bear the responsibility for compensation "during emergency use" without providing how long this emergency use would last.<sup>30</sup> Some experts have raised the issue of compensation for the vaccines acquired through the COVAX facility since low- and middle-income countries in specific will be faced with the impossible dilemma of granting total immunity (for lack of financial capacity to compensate for future injuries) or opting not to vaccinate (as was the case with one country during the Ebola epidemic in West Africa).<sup>31</sup>

## Conclusion

Addressing all the issues raised in this paper is a must for a successful vaccination campaign. To help ensure an equitable allocation of these scarce resources, the government and health authorities should clearly, frequently, and publicly share



the criteria for choosing specific vaccines, disclose negotiations about the price of each dose, be open about the evidence and the uncertainties, reveal any vaccine-injury compensation scheme, explain the modality of getting the vaccines, and the distribution process, and put in place mechanisms for accountability. These are minimal conditions for a fair decision-making process.

For a more ambitiously open, transparent, and above all inclusive decision-making process, all affected parties ought to be consulted and their opinions taken into consideration.<sup>32</sup> Engaging the civil society (for example, the Independent Lebanese Committee for the Elimination of Covid-19 of which the authors are members or other citizens panels and assemblies, syndicates, professional and patient associations) would be one way of improving transparency and building trust. Inclusive decision-making is an essential element of making decisions fair and legitimate for it “ensures that governments act according to the rights of political participation enshrined in national and international law, in particular human rights law and the principles of accountable government.”<sup>33</sup>

Given the rampant misinformation surrounding COVID-19 and mistrust about vaccines, not to mention the acute lack of trust in the Lebanese authorities, institutionalizing and broadening deliberative processes should be a priority. An open and transparent engagement with all affected parties including civil society stakeholders is essential. Transparency would entail accountability, equity, and justice. In the short term, this approach can build trust. In the long term, it can lead to more effective policies. The Lebanese government’s strategy on its COVID-19 immunization campaign, however, remains to be seen.



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