

EXPERT OPINION FUTURE GLOBAL PANDEMIC MANAGEMENT: LESSONS FROM THE COVID-19 CRISIS

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The history of this planet is full of Pandemics, that have repeatedly influenced the path of medical care and effectively inspired a big deal of vaccination science as well as introducing new codes of hygiene measures, social responsibility and even economic responses and charts. The Covid-19 pandemic was, in this regard, no exception.

Despite that an end of the pandemic is not anticipated in near vision, yet a number of lessons from the poor quality of crisis management whether globally or locally, are already there. The WHO imposed a number of indices to predict and help decision makers to control the disease. None of these proved to be enough as a single criteria for community based decisions, or interventional measures implementation. In this article we are going to discuss lessons from Covid-19 crisis from the authors' point of view. Taking into consideration the progression of pandemic in many countries and the related measures taken.

Keywords: Covid-19, crisis management, WHO.

INTRODUCTION

Covid-19 or corona virus was first identified in Wuhan, China in December 2019. China's trials to control the disease has failed resulting in global spreading of the disease. The WHO has announced public health emergency in January 2020, the disease continued spreading worldwide, thus WHO had to declare it as pandemic in April 2020.

Today, covid-19 has caused over 498 million deaths all-over the world. Such big mortality rate in short time makes covid-19 one of the worst pandemic the world has ever faced¹. Researchers worldwide are continuously working on discovering new drugs to deal with this pandemic, also many types of vaccines have been introduced and

vaccination is going on worldwide. WHO has outlined many strategies to help control this pandemic. In this article we are going to discuss these measures and lessons from Covid-19 crisis from authors point of view.

DISCUSSION

The Spanish flu in 1918, Asian flu in 1957, Hong Kong flu in 1968 and swine flu in 2009 evolved into pandemics and imposed high figures of morbidity and mortality. The novel corona virus is similar to these pandemics in terms of spreading to world by the mobilized people.

The world faced a number of problems in this pandemic, The proper case definition, finding out cases through testing and first case

cluster, failing to anticipate and deal effectively on due time with the problem of equal vaccination delivery worldwide, timely public awareness creation, economic management in a crisis and achieving sufficient population cooperation with the containment strategy. We will be discussing these problems as well others, and try to give a recommendation born from these lessons.

The WHO imposed a number of indices to predict and help decision makers to control the disease. None of these proved to be enough as a single criteria for community based decisions, or interventional measures implementation. Among these were the daily infection rate which was based on the ability of one case to infect others, a 3-day infection rate and a 7-day infection rate (published on a daily bases on www.Worldometers.org). A global fear of overwhelming the medical system with COVID-19 patients, exhausting medical resources and over-filling intensive care beds drove a number of governments worldwide to impose a lockdown. Repeated lockdowns have proved effectiveness in reducing the severity of waves, but on the other hand, interesting points were omitted whilst taking the decision. Failing to focus on the decisive factor in transmission, as well as omitting clear rules to care for patients of other diseases, have resulted in a may be unnecessary lockdown mania globally.

In Taiwan, a country which lacks a UN as well as WHO recognition, Face and Nose Mask as well as social distancing managed to control the first wild type virus wave in 2019, without imposing a lockdown². During the fourth and fifth wave in Germany, number of newly infected and hospitalized cases rose at the beginning of each wave, but the numbers sank without the need for a lockdown, despite comparatively horrible numbers in comparison to the first, 2nd and 3rd waves. The causes were unclear, partly explained by the introduction of vaccination, but partly unexplained due to the lower rates of hospitalization among infected cases compared to former waves. This again, similar to theTaiwan model, rose the questions of whether social distancing alone would have been enough to control a wave, without the real need for a massive lockdown, keeping its psychological effects³ drawbacks on Education, Tourism, hospitality, sports and leisure, gender

relation, domestic violence/abuse, mental health, and environmental air pollution⁴ in mind.

Failing to determine the most decisive factor in the severity of the wave, namely hospital admission, imposed may be an unnecessary, economically devastating lockdown. In Germany, during the 3rd wave and onwards, authorities abandoned the daily as well as 3-day and 7-day transmission rates as parameters to impose a new lockdown, and resorted to hospital admission rate, later even to ICU transmission rate⁵. Assumably learning from the first, 2nd. and 3rd. waves, Germany had fewer death rates without a lockdown this time. Globally, the infection rate was compared between the different countries without defining the crowd factor. An infection depending upon distancing and droplet rate infection, should be evaluated differently in terms of wave severity and lockdown need, according to population crowd and terms of spacing, unfortunately this was never the case. The outrage exploding numbers in the summer of 2021 in India, as well as School season 2020 in Egypt, are just two well-known examples.

In a study, Zawbaa *et al.*⁶ comparing the first 4 waves of COVID-19 in 12 countries, lower confirmed cases and lower death rates were reported successively with each wave compared to its former one. The authors suggested an effect of vaccinations as a cause of this finding. Tenforde *et al.*⁷ proved that that when breakthrough infections lead to hospitalization, the clinical course is milder and less likely to require intubation or culminate in death in vaccinated patients⁷. Despite their impressive results, to the extent that 80-90% of patients in the intensive care units of the UK in December 2021 were found to be unvaccinated⁸, the various vaccines efficacy still needs to be checked, and safety concerns remain unanswered in different SARS-CoV-2 mutants. The importance to understand how coronavirus gets mutated to design better is not only an under-rated, but also an unfulfilled duty⁹.

A big lesson lies on the Part of the Media, with all its connected medical bodies, governorate speakers as well as Health Ministries in different states. A poor media performance has been noticed at all stages starting by explaining the disease, elaborating

about necessary measures and supporting Panic about lockdown measures. One of the fatal mistakes was noticed at every emergence of a new mutation. This has led in every single case to panic about the new mutation, which was later proved to be unnecessary. In the future, it should be made clear to the public that It is possible that mutations are “good” for the virus right now could also make it less fit in the context of population-level immunity in the future. Defining these dynamics, and their potential influence on vaccine effectiveness, will require large-scale monitoring of any future virus evolution and host immunity for a long time to come, a matter that was omitted in the case of Covid-19. Another reason why the panic of new mutations was unsupported, is the easiness of modifying already existing m-RNA vaccines, a matter that is both medically effective, needed and economically profitable¹⁰.

The horrible example in this regard came from the WHO. The WHO failed to timely convey the exact and definitive health rules as a part of public awareness campaign they conducted. The campaign was affected by contradictory statements, which might have weakened public trust in the seriousness, and sometimes to the existence of the virus at all. Crude examples included statements about ability to transmit the virus from animal to human, followed by delay in recognizing that an endemic converted into pandemic and defining the correct mask to wear. Only a close-fitting, particle-filtering respirator without an outlet valve offers good self-protection and protection against droplet infection. Nevertheless, wearing simple homemade or surgical face masks in public is highly recommended if no particle filtrating respiratory mask is available. Rules applying to closed crowded spaces should resort to using exclusively improved filtration efficiency masks. WHO, the CDC and many public health professionals in Europe advised against wearing face masks unless someone has COVID-19 or cares for someone who has COVID-19^{11&12}. We have watched movements around the World, refusing the principle of compulsory vaccination and questioning the truth of the pandemic. These sideways might be a reflection of contradictory, not allowing a simple message of the Washington State

Department of Health in February 2022, revealing a significant lower infection, illness and death rates among vaccinated people in different age groups¹³. Being an Organization that have full access to management history of similar infections, failing to announce such simple rules was a complete failure of crisis management.

The essential feature for mutations is producing new variants known by high transmissibility, disturbing the viral fitness, and enhancing the virus replication. May be the most valuable lesson besides the efficacy of the vaccination and the importance of a successful campaign for public awareness at the start and throughout the pandemic, would be the problem of equality in global vaccination. Currently, a lack of a comprehensive approach to ensure vaccine access in developing countries threatens to prolong the pandemic, escalating inequalities and delaying the global economic recovery. Mutations in COVID-19 have introduced an extreme challenge in preventing and treating SARS-COV-2. One of the variants that has emerged recently in The UK in 2020 is the Delta variant (B.1.617.2), which was firstly detected in India. In November 2021, a more ferocious mutant appeared in South Africa, also called omicron (B.1.1.529). In India, the very low rates of vaccination, combined with lack of vaccination transport due to global shortage and financial issues of the state, was claimed to be the reason behind Mutations. Whilst in South Africa another factor of infection in immunocompromised patients was coupled with the financial shortage. These mutants grabbed world attention because of their higher transmissibility than the progenitor variants and spread rapidly. A future pandemic management policy should focus on equal vaccination and avoiding leaving "Hot-Spots" behind, which proved to be the origin of new, may be even more dangerous mutants.

Conclusion

To conclude, the world has an unfinished business dealing with Covid-19. Not only the defeat of the pandemic is desired, but learning from its lessons for implementation in potential new pandemics. Among these lessons should be deigning public awareness campaigns on stable ground of correct, clear and informative

data. A badly designed campaign, logic that does not hold water and contradictory facts led definitely to a population resistance to social distancing at certain parts of the world, and above all, to reluctance or even refusal of vaccination.

A global vaccination effort proved to have the priority over financial commitments to rich states who could afford the vaccination slots, and the back fire principle has been confirmed beyond doubt. Freaking out medical bodies and states cannot take correct decisions or counsel the crowd correctly. A descent consideration of all involved factors, recognizing the difference between societies and crowd factor in contagious diseases, may be of great importance to support a decision that would affect the lives and economy of millions.

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رأي خبير

إدارة الوباء العالمي في المستقبل: دروس من أزمة كوفيد-١٩

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تاريخ هذا الكوكب مليء بالأوبئة ، التي أثرت مراراً وتكراراً على مسار الرعاية الطبية وألهمت علم التطعيم بشكل فعال بالإضافة إلى تقديم قواعد جديدة لتدابير النظافة والمسؤولية الاجتماعية وحتى الاستجابات الاقتصادية والرسوم البيانية. وفي هذا الصدد ، لم يكن جائحة كوفيد-١٩ استثناءً.

فعلى الرغم من أن نهاية الوباء غير متوقعة في الرؤية القريبة ، إلا أن هناك بالفعل عددًا من الدروس المستفادة من سوء إدارة الأزمة سواء على الصعيد العالمي أو المحلي. هذا وقد فرضت منظمة الصحة العالمية عددًا من المؤشرات للتنبؤ ومساعدة متخذي القرار في السيطرة على المرض إلا أنه لم تثبت أي من هذه المؤشرات كفايتها كمعيار واحد للقرارات المجتمعية ، أو تنفيذ التدابير التدخلية. سنناقش في هذه المقالة الدروس المستفادة من أزمة العديد من البلدان والتدابير المتخذة ذات الصلة من وجهة نظر المؤلفين.