

### Syria: A Conflict-torn Country and the COVID-19 Conundrum

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## **Syria: A Conflict-torn Country and the COVID-19 Conundrum**

### **Main:**

The World Health Organization (WHO) proclaimed the coronavirus disease 2019 (COVID-19) epidemic on March 10, 2020, which has spread over the world, posing a significant epidemiological threat [1]. Around 400 million confirmed cases have been documented globally, with over 5.7 million fatalities. It is inescapable that coronavirus illness 2019 (COVID-19) continues to spread and enter least developed and conflict-affected nations. Over half of Syria's population has become refugees since the conflict began, and over six million people have been internally displaced [2]. By 2021, nearly 90% of Syrians will be impoverished, and basic needs such as food, shelter, and water will take precedence over seeking medical treatment [3], and a large number of teenagers in refugee camps have revealed evidence of violence and sexual exploitation, putting them at risk of becoming a permanent underclass.

Political instability and civil strife in the government-controlled region, northeast Syria, and northwest Syria have resulted in the establishment of three health systems, each with its own unorganized system for dealing with humanitarian emergencies and disconnected from the others [4]. For almost 10 years, COVID-19 has imposed a harsh scenario owing to a depleted health system as a result of the conflict [5]. Poverty, illiteracy, and violence have all exacerbated this problem, which has resulted in the destruction of over three-quarters of the country's medical services [6]. Furthermore, there is a chronic lack of mental health experts throughout the United States.

So far, more than 50,000 confirmed cases have been documented in Syria. Around 70% of the identified cases have recovered, 23% are still active, and 6% have died. Because of the limited economy, the WHO supplied antigen quick diagnostic tests for the majority of diagnosis. Diagnostic test kits with this restriction were only offered to patients in hospitals with high comorbidities and those with severe symptoms. As a result, the cumulative positivity rate was found to be over 33%. The low number of verified positive COVID-19 cases might potentially be explained by a lack of testing equipment, since they were underdiagnosed [7]. Furthermore, various political factors prohibit exact numbers of verified instances from being released.

Syria's health system is in the worst situation it has ever been in 2022, due to a number of circumstances including the closure of more than half of the country's hospitals, the exodus of more than half of the health professionals, and international sanctions aimed at the Syrian economy. The country is presently through the fourth wave [8] of its evolution. What's more, the Syrian populace has an extremely low vaccination uptake rate, with fewer than 3% of the population being vaccinated [9]. Vaccine hesitancy and vaccine inequity are other two significant hurdles towards achieving population immunity to COVID-19 in Syria, similar to most low-income countries [10]. Furthermore, many still believe that vaccines towards COVID-19 are unnecessary, that COVID-19 imposes little, if any, risks and that

Authorities have placed a number of restrictions, but the Syrian people have shown little sign of commitment. Facemasks are required in public institutions, marketplaces, and public transportation, and educational institutions have been shuttered for particular hours. When tourist establishments and restaurants did not follow safe distance guidelines [11], fines and closure warnings were applied. Official statistics on current cases crossing Syrian borders are unavailable. However, due to the relatively unsafe situation, lack of functioning tourist attractions, and the limited active crossing points, entering numbers are predicted to be lowest.

Furthermore, the Syrians confront several obstacles in containing the epidemic in the present highly harmed political and financial scenario—the current condition contrasted with severely limited freedoms and human rights violations [12]. Unfortunately, the majority of the population lacks access to safe drinking water and enough nutrition [12]. As a result of the violence and worries of a large-scale outbreak of COVID-19, people are either more distressed or disregarding the threat of COVID-19 owing to a shortage of basics. They would assume that the illness was a minor hazard in comparison to the hunger and poor economic position, which caused more individuals to disregard safety precautions.

COVID-19 transmission has been shown to be affected by low-stringency non-pharmaceutical measures, resulting in overcrowding in hospitals and a four-fold increase in mortality toll [13]. Many suggestions might be made to assist the Syrian population in surviving and settling in an appropriate location:

1. Cultural training to raise knowledge of various transmission routes; additional resources allocated to the healthcare system, such as personal protective equipment, masks, testing

kits, and contact tracking. and, where appropriate, the use of proximity-tracing technology and applications that allow people to self-report symptoms and diagnoses. Furthermore, additional immunizations are necessary. Unfortunately, any natural movement to make a change is paralysed due to a lack of funding which need urgent humanitarian assistance.

2. A new global pandemic funding structure for COVID-19 and beyond is essential for countries in distress, like as Syria. Syrians require financial assistance to rebuild their economic infrastructure, public health systems, and social growth in order to overcome the effects of COVID-19.
3. Plans, processes, and catalogued inventories are required to completely repurpose existing capacities (disease prevention initiatives, public-private partnerships, religious institutions) and infrastructure (buildings, distribution channels, and armed forces) to respond to COVID-19 and future pandemics. When diagnostic testing, treatments, and COVID-19 immunizations become available in underdeveloped countries, Syrians must have access to them.
4. Creating an agreement between the WHO and neighbouring nations to evaluate the precarious situation of refugees living in camps like Alzaatri and Edlib during the COVID-19 epidemic.
5. Establishing safe havens on Syria's borders with neighbouring countries to shield refugees, particularly the elderly and children, from the horrors of war, as well as creating a healthy and cultural atmosphere to prevent the spread of infectious illnesses and COVID-19.
6. Rebuilding hospitals and health centres that were devastated by the conflict, as well as finishing what is missing in terms of medical equipment, such as professional specialists, beds, and medications, in the remaining hospitals.
7. Millions of people, including children and adults, are affected by Syria's turmoil. Many of these individuals have been relocated, and many more reside in remote areas. In protracted war zones, food shortages and hunger are at an all-time high, while disease epidemics like as cholera, respiratory diseases, and diarrhoea are compounding an already dire situation. The Timely Response Mechanism will provide rapid and

coordinated assistance to emergent crises through an integrated and multi-sectoral response focusing on conflict-affected communities.

8. Interventions for TB, noncommunicable and communicable illnesses, polio, and HIV/AIDS were significantly impeded throughout the epidemic. Because a viable COVID-19 medical countermeasure will be in short supply, it is important that Syrians have fair access to and distribution of medical treatment.

### **Ethics approval and consent to participate**

Ethics approval has been taken from Ibn Al-Nafees Hospital ethics committee.

### **Consent for publication**

Not applicable

### **Availability of data and materials**

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request

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The authors declare that they have no competing interests

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### **Authors' contributions**

All authors have helped in writing and reviewing the manuscript.

SS: Took the lead in writing the manuscript

MBM, WE: Helped in writing the recommendations and suggestions

MMP, EMSA, AK: Helped in writing the introduction and COVID-19 situation part.

KRM, SMS, SS: Helped in reviewing the manuscript and adding details.

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