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Citation

Lessons Learned From LMICs (Low and Middle Income Countries): COVID-19 Health Education and Community Outreach Best Practices for Gaza

Abstract

Purpose of Review

To survey successful COVID–19 interventions of low– and middle–income countries (LMIC) that are transferable to Gaza, Palestine.

Recent Findings

As the COVID–19 pandemic ravages globally, low– and middle–income countries (LMIC) showed success in education–based intervention approaches. This paper compiled the COVID responses in 7 LMIC: Vietnam, Ethiopia, Bangladesh, Somalia, Afghanistan, Yemen, and Syria. The authors outlined the most successful and effective of these public health strategies, such as outreach through local leadership and the use of social media campaigning. Ineffective public outreach attributed to the shortcomings of some of the countries' public health responses. This paper identifies the successful techniques of one LMIC and how similar strategies may be applicable in assisting Gaza in curbing COVID–19 infection rates.

Summary

Gaza, a community under conflict with little resources, must implement proven strategies to improve its healthcare framework and COVID–19 response. Of the 7 LMIC reviewed, 3 are nations actively in conflict: Afghanistan, Yemen, and Syria. Assessing their ability to respond to COVID despite unstable infrastructure and low–income status provides an important example of successful health education and community outreach techniques. Based on the education–based and community–oriented best practices discovered, appropriate recommendations are proposed for Gaza's growth and benefit.

Introduction

LMIC were unable to afford as many resources as higher income countries in light of the COVID–19 pandemic. Many wealthier nations had contact tracing and COVID testing facilities without significant financial obstacles. Meanwhile, the LMIC put significant focus on implementing effective public health education and multi–factoral, community–targeted strategies that aided prevention, despite limited resources.[1] Many educational campaigns centered around cleanliness, and national leaders promoted public awareness and education adherent to the WHO guidelines, backed by science. Sharing these guidelines helped support the importance and enforcement of social distancing, especially for those with symptoms. In some cases, individuals, based on gained knowledge, also elected to forego preventive medical care, opting to visit healthcare facilities only in emergency situations to continue

with social distancing.

The success of other LMIC shows that public health education and communication can be effective in locations like Gaza regardless of the current healthcare infrastructure. There are other evidence–based techniques used by LMIC that are realistically the most transferable to Gaza's needs, given their low financial requirements. For this purpose, two LMIC were assessed where community–based educational campaigns were particularly successful: Vietnam and Ethiopia. Bangladesh and Somalia are cited as LMIC where more public education was recommended in order to improve the COVID response. Finally, most closely related to Gaza, 3 LMIC that are in conflict and/or at war with existing assessments of their educational campaigns related to COVID–19 (Afghanistan, Yemen and Syria) are included in this review.

LMIC Health Education and Community Outreach Strategies

Vietnam was a notable LMIC because it was able to contain COVID–19, although it was predicted to have high numbers since it shares a border with China where COVID–19 originated.[2,3] This success is heavily attributed to timely intervention and successful communication via social media networks and the media. The government in Vietnam played a central role in providing updates quickly and collaborating with the nation's private citizens.

When Vietnam witnessed a spike in cases after the first case on January 3, 2021, the government immediately shifted focus to their public health response, disregarding the economy, which led to a period of 22 days between February and March without any cases. While other nations, such as South Korea and Italy, had case numbers in the thousands during this period, Vietnam remained within double-digits. A particularly effective strategy was "science journalism," which involved scientists in the country sharing journal articles and other COVID updates on their social media. An associate professor of Johns Hopkins saw as many as "nearly 13,000 views and hundreds of shares" on the articles he posted.[3]

An effective intervention method that Ethiopia employed was the formation of "task forces."[4] These task forces targeted rural populations to educate on COVID–19 and provide crucial knowledge of the pandemic and prevention measures. These task forces consisted of two health extension workers, assigned from the country's 42,000 health workers, per village. They worked with locals to increase awareness of COVID–19 and prevention strategies. This was an essential aspect of the intervention because 79% of Ethiopia's population lives sparsely in rural areas.[4]

By contrast, Bangladesh and Somalia are LMIC that did not see as a successful response since they had limitations in the exact areas that Ethiopia and Vietnam chose to target. In Bangladesh, a major gap was found in access to public health awareness announcements, likely as a result of lack of access to the Internet especially in rural communities.[5] They found the population most aware of COVID–19 response strategies were those which could easily access education on the internet.[5] This is a contrast from Ethiopia, where villages were assigned a task force of individuals to ensure the education reached there.[4] Somalia also showed the same trend where the adherence to social distancing guidelines was higher in those who were exposed to information from government or other official sources. Those exposed to preventive health messaging had 1.460 times the odds of adherence than those unexposed.[6] Similar to the conclusions made assessing the response in Bangladesh, the authors studying Somalia suggest a more targeted information campaign utilizing more platforms for message sharing.[6]

Examples of LMIC in conflict or war

For Gaza specifically, there is a lot to be learned from LMICs under conflict or at war during the COVID–19 pandemic, particularly Afghanistan, Yemen, and Syria. In both Afghanistan and Yemen there is evident room for improvement with recommendations for enhancing public education and outreach. Syria, by contrast, showed a somewhat positive response where community health education played a crucial role.

Afghanistan's situation showed the need for telemedicine services and a supportive technological infrastructure in order to provide essential health care given the current inadequacies of healthcare facilities and equipment.[7] It also further supported the importance of utilizing the existing workforce in the country and providing proper training. Training, even over a digital network, would improve healthcare outcomes for citizens and build "public trust in pandemic governance."[7]

Of all the countries discussed, Yemen is the most constantly under siege from airstrikes with a strained healthcare system, resulting in poor COVID control response.[8] Like Afghanistan, Yemen lacks the resources to currently support a proper healthcare system, especially with an actively ongoing blockade. Mousavi et al. suggest a globally supported network of organizations should work to end the blockade in Yemen as quickly as possible, help provide immediately needed resources such as PPE, and further train essential health care workers to support Yemen's healthcare system in its COVID-19 response.[8]

Syria was able to have more success than Afghanistan and Yemen by obtaining exactly what both nations needed: global support and educational outreach using technology. Syria responded to COVID–19 using knowledge previously gained from other infectious disease outbreaks and created the "Volunteers against Corona" campaign.[9] The success of this program further supports the effectiveness of volunteer support from individuals in the community on the ground. Neighbourhood committees were in charge of promoting awareness in their own communities, determining risk, and tying local communities to the national campaign.

The Syrian campaign also successfully utilized social media, primarily Facebook and WhatsApp. Social media was an effective tool for the teams to collaborate, stay updated with one another's work, and share information. It connected the leaders, which in turn connected the communities.[9] Syrians across the globe used online tools to create information networks sharing the most up–to–date information on the virus to the local health system. For example, a medical chat room was created on WhatsApp for quick updates. A range of online meeting platforms, such as Zoom, were also used to deliver remote training sessions to healthcare workers within Syria. Syrians outside of the country also used such online tools to create a resource pool to extend the country's outreach capabilities by reaching health care workers in more remote areas.[9]

Recommendations for Gaza

Ultimately, it is evident from other LMIC that improving the healthcare infrastructure will be reliant on community outreach, networking and technology–based education. In the cases that were successful (as seen in Syria, Vietnam, and Ethiopia), they set up education networks that worked quickly and effectively targeted even the hardest–to–reach communities. Bangladesh, Somalia, Afghanistan, and Yemen offer insights with regard to what more could have been done. In each of these nations, the authors of the respective articles concluded that the health care response would have benefited from more widespread use of telehealth services and online educational tools, especially in rural or underserved areas. Further, a proper network of resources to train and educate health professionals or leaders directly tied to the community can improve the overall healthcare system. Therefore, focusing on both education and building technological infrastructure are critical to any program developments in Gaza.

After the assault on Gaza in May 2021, the healthcare system and sewage systems, already in poor condition, were further decimated, with destruction affecting the main COVID–19 lab.[10,11] With the goal of developing a more sustainable healthcare infrastructure to compensate, the medical reserves were proposed.[10] Within this proposal, underemployed healthcare professionals in Gaza will be trained and work in 4 divisions to support Gaza's healthcare network development. One division is the healthcare education and community outreach team, which will serve to support [1] emergency health services and [2] long–term preventive primary care services.

Part of the education and outreach plan is to involve elders from Gaza's various neighborhoods,which would allow the community to be directly involved in its own healthcare support system.[10] This community-based approach's importance was made evident in Afghanistan, where the authors stated there needs to be more focus on building public trust especially in government or larger organizations.[7] This critical point would be addressed by the incorporation of these neighborhood elders. By seeking support from local leaders, a more trusting relationship can be ensured. This technique is further supported by Ethiopia's use of task forces where individuals spread information to community members at the personal level.[4] Syria also used a similar framework as a part of their Volunteers Against Corona initiative.[9]

Once this trust is built between the government, health educators, and its citizens, there is an easy translation of information. Gazans have a high literacy rate, so it will be effective to use social media and other text–based platforms to spread important COVID–19 related messages.[10] Utilizing social media, health education messages can more effectively reach a greater population similar to Syria and Lebanon's successful COVID social media campaigns.[10] Lessons learned from Bangladesh and Somalia indicate that both countries may have benefited from technology use.[5,6]

Conclusion

The existing evidence from these 7 countries points toward the success of using a community–oriented and technology–based public health approach in Gaza. Such techniques as social media education and online training proved effective during the emergency pandemic situation, and can potentially be translated to support other health campaigns as well, such as a version of Michelle Obama's Let's Move! Program promoting active lifestyles or the CDC's many cancer screening programs for early detection. Future work will involve implementing the proposed framework in Gaza, and assessing the program's success.

Plausible next steps include implementation of a possible pilot health education program or focused case studies of community outreach. A major limitation is securing funding for such programs or studies. Given the dire need, a call for action in the greater global health community can aid in funding as well as assist in implementing much needed health education programs.

We also propose further study and monitoring of the countries evaluated in this paper. The evaluation of long-term success of the programs in each country is limited by the small time frame of observation given that only a year has passed since the COVID–19 pandemic began. Any evidence for possible long-term success would further aid in the transferability of such programs to Gaza via the Reserves. Ultimately, the goal of surveying COVID-19 health education and community outreach programs is not strictly to contain COVID-19, but rather to implement these best practices and translate them across other long-term chronic disease prevention for the betterment of Gaza's and similar LMIC's overall health.

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