

COMMENTARY

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Globalization and vulnerable populations in times of a pandemic: A Mayan perspective



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Abstract

Global health conditions are marked by inequities due mostly to poverty and lack of access to healthcare services. In a Pandemic setting, Mayan Communities in the Quintana Roo State in Mexico are a good example of how these disparities are exacerbated. First, they may have difficulty in adhering to directives to stay home from work because of the nature of their job, and the necessity to work, their living conditions are marked by crowding and sometimes lack of basic sanitation. Other susceptibilities generally considered are the underlying host factors and medical conditions that may increase the risk of disease or of complications of disease. In general, our native communities experience a high degree of socio-economic marginalization and are at disproportionate risk in public health emergencies, becoming even more vulnerable during this global pandemic, owing to factors such as their lack of access to effective monitoring and early-warning systems, and adequate health and social services.

Introduction

Globalization brings to the table free flow of trade, investments, and profits across nations with the hope of improving global integration that eventually will produce the best economic, social, and political outcomes for humanity. From a public health perspective, globalization has improved health and life expectancy in many populations, but unfortunately, it has endangered many others due to the erosion of the environment, the global division of labor, the exacerbation of the rich-poor gap between and within countries, and the accelerating spread of consumerism [1].

As a result, global health conditions are marked by inequities due mostly to poverty and lack of access to healthcare services. In a pandemic setting, these disparities are exacerbated. Literature from the influenza pandemic show that there are several causes for such event [2, 3]. First, low-income and minority workers may have difficulty in adhering to directives to stay home from work because of the nature of their job, and the

necessity to work [4], their living conditions are marked by crowding and sometimes lack of basic sanitation [5]. Other susceptibilities generally considered are the underlying host factors and medical conditions that may increase the risk of disease or of complications of disease. Our native communities experience a high degree of socio-economic marginalization and are at disproportionate risk in public health emergencies, becoming even more vulnerable during this global pandemic, owing to factors such as their lack of access to effective monitoring and early-warning systems, and adequate health and social services [2].

The Mayan experience

A good example of how globalization affects vulnerable populations is the Mayan Communities in the Yucatan Peninsula. In my early years of practicing physician, I volunteered at a non-profit organization that provided community health care to Mayan Communities in the State of Quintana Roo, Mexico. The experience not only shaped my future career choices, but taught me the complexity that entails providing adequate healthcare to vulnerable populations. I witness a rooted distrust of the healthcare system, the corruption of the government, a

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high degree of socio-economic marginalization, and many underlying host factors and medical conditions that increase the risk of diseases or of disease complications. These communities are often immersed in the jungle with low infrastructure, poor sanitation, and no access to health and social services. Due to the financial constraints, many people from the communities go to larger cities -such as Cancun- to work in the hotel industry.

Before the coronavirus-era tourism was thriving, cruise ships were coming and going to and from the Riviera Maya, spring breakers were enjoying the beaches, people all around the world traveled to witness the natural beauty of this land. Unfortunately, along with their contribution to the economy, this year tourists also brought SARS-COV-2 with them. The first three confirmed cases in the area were announced on March 10th, and it was on March the 30th when social distancing measures were issued, hotels were closed and people had to go back to their hometowns. And so, they took the virus with them. To warn the population, Mexican government issued messages via radio and brochures in their native language, but the lack of health community centers on site and difficult transportation from their town to the city complicates the situation because it is difficult to ensure adequate education. Even though the local government has established medical brigades on a regular basis with the current contingency it is unclear how many of these brigades are working due to the fact that medical personnel are recruited to assist in front lines at local hospitals.

Another major problem- often forgotten in a globalized world- is the cultural context. There are still very traditional Mayan communities that sometimes clash with the western view of medicine and healing. Understanding the interpretation of illness, health and healthcare of the communities is crucial when setting up preparedness plans. Thoughtful consideration of the community context helps develop a language that is appropriate for them and avoids clashing cultures. In the case of the Mayas, it is important to note that life, illness and health are interrelated events, and they have a direct relation with their gods and their ancestors. Life is interrelated with the physical world and the gods from the sky, earth, and underworld. This interconnectedness is reflected in the Mayan view of illness [6]. When it comes to healthcare choices, Mayans have a communitarian approach where a decision is not taken autonomously by one individual, but rather as a communal decision where the extended family and the H-men (Mayan spiritual healer) participate [7]. Mental reasoning is not taken into consideration when making healthcare choices, because it is believed that the human heart is the receptor of the divine essence that comes from the Heart of the

Sky and the Heart of the Earth, therefore it is only the heart that enables people to use their good sense and not the brain [8].

Final remarks

With this background one can imagine that imposing social distancing practices due to a novel virus can be difficult if not addressed in a culturally sensitive manner. It is well known that pandemic preparedness and response must occur within a social, cultural, and historical context of preexisting health disparities [9]. In this case, understanding their views on health, illness and healthcare and including the H-men in the planning and implementation process of prevention and mitigation strategies is crucial to gain the trust of the community. Building bridges of communication and trust between the leaders of our native communities is key to be able to protect these communities and to improve their adherence to social guidelines. However, in a crisis there may not be enough time to build those bridges, it is likely that prevention will not be possible, and mitigation actions will need to take place.

With this unfortunate event, one thing is clear, globalization has unintended health risks, and marginalized communities are left in an even more vulnerable position.

Acknowledgements

To the people in Quintana Roo, Mexico with whom I worked, specially Father Izquierdo and Father Jiri, and to Dr. Alejandra Barrero who facilitated the communication between the author and some medical personnel in the area.

Authors' contributions

Claudia Sotomayor and Alejandra Barrero are the authors of this manuscript. The author(s) read and approved the final manuscript.

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Funding

Not applicable.

Availability of data and materials

Not applicable.

Ethics approval and consent to participate

Not applicable.

Consent for publication

I consent the publication of this commentary.

Competing interests

The authors declare that they have no competing interests.

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Received: 22 July 2020 Accepted: 27 August 2020

Published online: 12 October 2020

References

1. Botero. El cambio climático y sus efectos en la biodiversidad en América Latina: Comisión Económica para América Latina y el Caribe; 2015. p. S.15–01295.
2. United Nations. COVID-19 and Indigenous peoples. 2020. Available at: <https://www.un.org/development/desa/indigenouspeoples/covid-19.html>.
3. Anon. Responding to Healthcare Disparities and Challenges With Access to Care During COVID-19. 2020;4(1):117–28 [online]. Available from: <https://www.liebertpub.com/doi/abs/10.1089/heq.2020.29000.rtl>.
4. Quinn SC, Kumar S, Freimuth VS, Musa D, Casteneda-Angarita N, Kidwell K. (2011) racial disparities in exposure, susceptibility, and access to health care in the US H1N1 influenza pandemic. *Am J Public Health*. 2011;101(2):285–93 <http://proxy.library.georgetown.edu/login?url=https://search.proquest.com/docview/847329699?accountid=11091>.
5. Blumenshine, Philip, et al. "Pandemic Influenza Planning in the United States from a Health Disparities perspective.(PERSPECTIVE)." *Emerging Infectious Diseases*, vol. 14, no. 5, U.S. National Center for Infectious Diseases, May 2008, pp. 709–15, doi:<https://doi.org/10.3201/eid1405.071301>.
6. Barrera-Bassols, Toledo. Ethno-ecology of the Yucatec Maya: symbolism, knowledge and management of natural resources. *J Lat Am Geogr*. 2005; 4(1):9–41. <https://doi.org/10.1353/lag.2005.0021>.
7. Faust. Cosmology and changing Technologies of the Campeche-Maya. Dissertation Graduate School of Syracuse University. Doctor in Philosophy in Anthropology. 1988.
8. Micalco. The use of numbers in embroidery in Tzeltal Mayan communities. *Cult Hist Psychol*. 2013;3:98–105.
9. Plough, Alonzo, et al. "Pandemics and Health Equity: Lessons Learned from the H1N1 Response in Los Angeles County. (Report)." *Journal of Public Health Management and Practice*, vol. 17, no. 1, Lippincott Williams & Wilkins, WK Health. 2011.

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