Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Archives of Medical Research 52 (2021) 121–122

Archives of Medical Research

OPINION

Subsequent Curves of COVID-19 in Society

Rodrigo Ramos-Zúñiga

Institute of Translational Neurosciences, CUCS, Universidad de Guadalajara, Comisión Estatal de Bioética, Ministry of Health, Guadalajara, México

Received for publication July 24, 2020; accepted September 14, 2020 (ARCMED_2020_1329).

Beyond the strict biological scenarios inherent to the virus, other consequences exist that require attention due to the duration and evolving alternate implications of the pandemic in our society. The relevance of other ''curves'' in the Covid-19 Pandemic, related with Non Covid diseases, socio-economic issues, the wear and tear on the medical and social service infrastructure, and the physical and mental deterioration in the human resources, need a special focus in the global strategies in the management of Covid-19 pandemic. Civil rights and legal implications, are another issue to have in mind in the decisions, because these guidelines must not be the cause of social discrimination or stigma in the society. This bioethics approach is particularly targeted to those who are primarily responsible for decision making in matters with an impact on public health.

Key Words: Coronavirus disease, Covid-19 pandemic, Social determinants of health.

COVID-19's social impact and its subsequent inertia shape a global vision of the collateral consequences of a pandemic. Contrary to the mere health-related awareness surrounding the disease, wherein there is a predominance of reports about ''the curve,'' coupled with new terms for the society that have eventually learned, which are also relevant in public health.

Beyond the strict biological scenarios inherent to the virus, other consequences exist that require attention due to the duration and evolving alternate implications of the pandemic in our society (1).

In principle, our primary focus will enduringly encompass the aspects related to the first ''curve'' in the healthcare system, wherein we are dedicated to identifying with greater scientific accuracy the natural history of the disease, the containment, and mitigation strategies. Additionally, the research will continue with the eager search for remedial options and vaccines (2). Within this context, morbidity conditions that are part of our local epidemiologic agenda are included, which are definitely tenuous and have become worse in their expression and care capacity. The deferral of elective procedures or chronic diseases and even some non-COVID-19 infections have started to have an impact on numerous cases (Second curve).

The chronic evolution of survival among the elderly represents the disease burden in terms of supplies, infrastructure, economy, labor, and social implications. The third curve shows greater social consequences since it comprises the official regulations for confinement and eventual suspension of non-essential activities, with conspicuous repercussions on local employment and economy. Therefore, chronic degenerative disease care and follow-up are in a limbo; these represent a fragmented perspective within the institutional outlines of those programs that must secure universal health (Seguro Popular/INSABI).

The fourth curve appeared immediately after the beginning of the pandemic, and it represents the mental health outlook of people who may be affected directly or indirectly by the physical disease. Anxiety attacks, panic due to uncertainty, the emotional toll on families, and depression are in line with health care professionals' fatigue who enter a crisis period of depersonalization, depression, and even suicides (Burnout Syndrome). This may be especially because of the lack of supplies, absence of support or decision-making leadership, and high-risk exposure (3).

Quarantine in a strict sense refers to the physical separation of people who have been exposed to an infectious disease. Unlike ''isolation,'' which strictly applies to persons that suffer with the infection. With this argument, recommendations have been made addressing social awareness,

Address reprint requests to: Rodrigo Ramos-Zúñiga MD, PhD, Universidad de Guadalajara, Institute of Translational Neurosciences, Sierra Mojada 950, Col. Independencia, Guadalajara Jalisco, México; Phone: (+52) (333) 6627170; E-mail: rodrigorz13@gmail.com, rodrigor@cencar.udg.mx

0188-4409/$ - see front matter.
https://doi.org/10.1016/j.arcmed.2020.09.012

which might not be so efficient if we consider the diversity and heterogeneity of the population. Thus, the government has published mandatory guidelines due to the risks that a pandemic represents in public health (4).

It is against this backdrop that the social implications of the law must also be evaluated. It may go through a tortuous journey and disintegrate if confronted with nullity procedures, arguing discrimination or the economic need to work. These situations have already set a precedent case law during previous pandemics. Consequently, the instructions and legal basis of healthcare authorities must be solid, convincing, scientifically supported, respecting of civil rights, without becoming a state of emergency (5).

At the same time, there exist other epidemic experiences (yellow fever), wherein the immunity to the disease was a parameter to identify persons who were in good condition to work. Such immunity status was defined by the extent of how people get ''acclimatized.'' The current interpretation of the alleged ''immunity passport,'' which is obtained through diagnostic tests such as PCR or antibodies, can be achieved in different scenarios based on environmental, geographical, and social variables. This situation would represent a dual effect: on the one side, the disease-inherent social risk, and alternately, in the environmental context, the disease risk itself (6).

From the viewpoint of fundamental values and rights of communities, the growing attack due to the pandemic has also been perceived and felt. The ethical implications and dilemmas appeared soon enough, and it was necessary to reconsider the ''Bioethics Guide'' proposed by government agencies. The task relevance of the bioethics and research ethics committees of hospitals as having a substantial role in decision-making was deliberated and reactivated. The position of preserving fundamental rights in a crisis scenario entails critical routes with greater balance, apart from biased and discretional decisions (7). Certainly, many collaterals have emerged from these curves, and in the case of the guidelines, the challenge is to link them to decision making with a legal basis, beyond the traditional figure of recommendations. Without a doubt, one of the challenges of the new generations is to convert aspirational precepts into proactive proposals based on what are now called the moral determinants of health (8). That is to say, that the right to life as to health, have a universal character, inherent to dignity, without the interpretative confusions of any state.

It is during this evolutionary spike that we are now concerned and concentrate on new challenges that can impede equality, distributive justice, as well as cause depletion of respect for physical and emotional integrity among people and society. Among these challenges are *stigma and discrimination*, which are practiced in an apparent as well as hidden and discrete manner. These sanitary guidelines must not be the cause of social discrimination or stigma that can be associated with the management of such data, and in any case take into account the moral determinants of health in a specific socio-cultural context.

It is the permanent task of bioethics to anticipate these conditions and to issue precautionary recommendations so that in each of the current curves and the following ones that may surge from a potentially endemic perspective, people can be promptly alerted and their concerns addressed. This approach are particularly targeted to those who are primarily responsible for decision making in matters with an impact on public health.

Conflict of Interest

The author declare that they have no conflict of interest.

Funding

No funding support for this report.

References

1. Gostin LO, Wiley LF. Governmental Public Health Powers During the COVID-19 Pandemic: Stay-at-home Orders, Business Closures, and Travel Restrictions. JAMA 2020;323:2137−2138. https://doi.org/10.1001/jama.2020.5460.
2. Jackson LA, Anderson EJ, Rouphael NG, et al. An mRNA Vaccine against SARS-CoV-2 - Preliminary Report. N Engl J Med, 2020;. https://doi.org/10.1056/NEJMoa2022483.
3. http://www.aes.es/blog/2020/04/19/la-salida-mejorar-la-capacidad-de-respuesta-sanitaria-y-social/. Accessed September 8, 2020.
4. Parmet W, Sinha M. COVID-19 The law and limits of quarantine. N Engl J Med 2020;382(15):e28. https://doi.org/10.1056/NEJMp2004211.
5. McCloskey B, Zumla A, Ippolito G, et al. Mass gathering events and reducing further global spread os COVID-19: A Political and public health dilemma. Lancet 2020;395(10230):1096−1099. https://doi.org/10.1016/S0140-6736(20)30681.
6. https://www.nytimes.com/2020/04/12/opinion/coronavirus-immunity-passports.html. Accessed September 8, 2020.
7. Singh S. Disability ethics in the coronavirus crisis. J Family Med Prim Care 2020;9:2167−2171.
8. Berwick DM. The moral determinants of health. JAMA 2020;324:225−226.