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**EDITORIAL** 

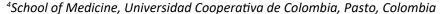
## Non-COVID-19 Deaths in Times of Pandemic: Lessons Learned

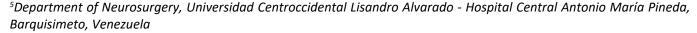
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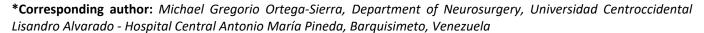
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The actual distribution of excess mortality throughout the world from the ravages of the COVID-19 pandemic remains a question mark. Deaths from COVID-19 and non-COVID causes, decompensation of previous illnesses, complications of acute illnesses, and loss of functional capacity due to progression of chronic and degenerative diseases have exacted an unparalleled toll on health care systems. Similarly, it has increased the global burden of disease and compromised the quality of human life in the medium- and long-term [1]. One of the factors that undermined the design and implementation of strategies to address the global burden of disease other than COVID-19 was the confinement and restriction measures during the first weeks of the course of the pandemic in the year 2020, and for the rest of the year, in some countries where the incidence and mortality rate remained high [2].

Calderón-Larrañaga, et al. [1] conducted a study where they found that the excess mortality in Stockholm (a city belonging to a high-income country) was 150% (152% women vs. 183% men) [1], by comparing the statistics for the first 20 weeks of 2020, compared to the data between 2015-2020. In Mexico, a middle-income country, Friedman, et al. [3] calculated excess out-of-hospital mortality for the year 2020 compared to six previous years (2014-2019), estimating 194.7 excess out-of-hospital deaths (95% CI; 135.5 to 253.9) during

the peak of the pandemic, representing a 145% increase from what was expected. And of these, only 5 were out-of-hospital COVID-19 deaths [3].

This correlates with the results obtained by other studies, which affirm a disutilization of health care services during the peaks of the pandemic, which substantially increased mortality in the homes of chronically ill people; this allowed the authors to affirm the presence of a hidden epidemic, which also led to a large number of deaths [4]. Griffin S [5] states that a high number of non-COVID deaths is associated with pressure and instability of a health system, which is clearly more intense in low- and middle-income countries, where there are high levels of corruption and lack of funding and infrastructure [5].

Another point to highlight is that the results obtained from more comprehensive studies show that excess death is prevalent in groups of people of low socioeconomic status, low educational level, and black race [6]. This was demonstrated by the study by Woolf, et al. [6], where they found that between March 1, 2020, and January 2, 2021, the U.S. experienced 2,801,439 deaths, 22.9% more than expected, representing an excess of 522,368 deaths [6]. The rate of excess deaths was higher among the non-Hispanic black population (208.4 deaths per 100,000) than among the non-Hispanic



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white or Hispanic population (157.0 and 139.8 deaths per 100,000, respectively); these groups accounted for 16.9%, 61.1%, and 16.7% of excess deaths, respectively [6]. However, this distribution was similar, with more significant variations found in third world countries [7].

In this order of ideas, the decision to install restrictions and confinement abruptly, without the design of an organized response in a predetermined manner, is not an adequate decision due to the collateral damage generated by this type of decision. However, it has not been possible to predict with certainty the distribution of deaths by region in the absence of containment, and this is a limitation that should be addressed in future emergency public health programs. In addition, it is necessary to create centers specialized in specific services to avoid the overload of diseases of general management, which do not allow the rapid flow of patients, especially from marginalized areas such as rural areas, where the distance between these areas and a high-level hospital is long [8]. Also, it is important to involve interest groups, students and academics in the responsible management of the control of different diseases, in order to avoid the accumulation of complications and decompensation [9-12]. One of the hot topics to be discussed in the event of future pandemics is the impact on the mental health of those who suffer a substantial and negative impact on the management of emotions and family, social and economic difficulties suffered under a public health catastrophe. Self-harm, neuropsychiatric disorders and suicide may also be statistics to consider about the burden of disease that is generated secondary to a pandemic and may even represent the exacerbation of a previous pathological condition.

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