Challenges in the COVID-19 vaccination era: Prioritization of vaccines among essential workers in Mexico

Eugenia M Ramos-Dávila, Mariana González-Treviño, Lucas A Garza-Garza, Raul E Ruiz-Lozano, Néstor Ibarra-Salazar, Michel F Martinez-Resendez

1 Tecnológico de Monterrey, Monterrey, México, 2 School of Medicine, Universidad Autónoma de Nuevo León, Monterrey, México

Keywords: COVID-19, vaccines, health personnel, health policy

The coronavirus disease-2019 (COVID-19) pandemic gave rise to a massive global health concern that has placed an unprecedented strain on healthcare systems, education and economy. The recent vaccine roll-out gave humanity a glimpse of hope. However, more than 50% of the vaccine supply has been acquired by high-income countries, forcing low- and middle-income countries to prioritize who should be vaccinated. In Mexico, the first phase of the vaccination program prioritized healthcare personnel working in front-line COVID-19 public institutions. The second phase was planned for the remaining healthcare workers attending at both COVID and non-COVID areas. The government, however, aiming to reopen schools, decided to vaccinate teachers instead. This raised several concerns, since Mexico tops the ranking of deaths among healthcare workers due to COVID-19 worldwide. Furthermore, the possible framing of vaccines as a political tool has caused commotion among the Mexican people and media, especially since 2021 is the Midterm Election year in Mexico, and the Teachers’ Union has historically played an essential role in this matter. Therefore, it is relevant to share the vaccination experience in墨西哥 in resource-constrained settings to provide help and advice to reach an optimal strategy and deflate this pandemic.
healthcare personnel. For COVID-19, however, this dynamic substantially changed, and vaccines were ordered to be administered by "Servidores de la Nación", composed of about 23,000 members of the political party in power. Also, several members of the Army were instructed to secure vaccination sites, raising criticism regarding the heavily militarized vaccination brigades.¹

On the other hand, the struggle for quality and reach of education during the pandemic in low- and middle-income countries should not be underestimated. In Mexico, 43.5% of homes lack internet access, and as an effort to address this problem and mitigate the possible exacerbation of existing inequalities,¹⁰ classes are now broadcasted on national T.V. and radio, stretching educational reach to 92.5% of the population.¹¹ Although reopening schools is ideal, attempting to do so by vaccinating teachers may not diminish the spread of the virus since vaccines are tested in terms of mortality or severe disease prevention and have not been proven to reduce transmission yet.¹² In addition, the appearance of new strains of COVID-19 possessing a higher rate of severe outcomes supports the need for vaccination of all healthcare personnel in preparation for an imminent spike in cases. The urgency of returning to the original vaccination strategy proposed by Mexico’s GTAVCovid-19 group cannot be overemphasized.

The latest information on health personnel’s vaccination was published on May 16th, a month after the teachers’ vaccination program began. The report informed that a total of 1,097,190 healthcare providers had been vaccinated compared to 1,843,832 educational workers.¹³ A graphic description of available data comparing these to populations is presented in Figure 1. Unfortunately, there is no information regarding the proportion of health personnel vaccinated. However, it is estimated that 87% of the educational workers received at least one dose.¹⁴ Overall, as of August 18th, 25.19% of Mexico’s population had been fully vaccinated, including healthcare providers who had to wait in line for their vaccination turn according to age group.¹⁵ Currently, Mexico remains the leading country on health personnel deaths due to COVID-19 infection and faces a third pandemic wave with cases rising to 22,000 daily, most seen in the young and in the unvaccinated.¹⁶

The possible framing of vaccination as a political tool takes it out of the realm of medical science altogether. Instead, a successful vaccination program should be built around scientific data, public health benefits and an aim for full population coverage. The remaining should prevail in nations with limited resources, where the latter cannot be immediately fulfilled.¹⁷

The federal government in Mexico has ignored its own technical advisory group’s strategic advice and international recommendations to vaccinate all healthcare personnel, regardless of their place of employment (public or private sector), thereby neglecting a considerable proportion of health workers. Therefore, it is essential to share various vaccination experiences so that other nations may be able to optimize their strategies and achieve success in overcoming this pandemic.

Figure 1. Cumulative COVID-19 vaccines applied during the first 16 days of May 2021 to healthcare providers compared to educational workers.

ACKNOWLEDGEMENTS

We would like to thank all Mexican healthcare workers who directly or indirectly contributed to the care of patients, and the support and maintenance of the health system during the pandemic.

CONFLICT OF INTERESTS

The authors completed the ICMJE Unified Competing Interest form (available upon request from the corresponding author), and declare no conflicts of interest.

DISCLAIMER

Authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the Journal.

AVAILABILITY OF DATA AND MATERIALS

All data relevant to the study are included in the article. However, study materials and data that support the findings in this paper are available upon reasonable request by contacting the corresponding author.

FUNDING

No funding was obtained for this study.

AUTHORS’ CONTRIBUTIONS

All authors have contributed to each stage of the manuscript design and preparation, and approved the final version. All authors agree to be accountable for all aspects of the work.

CORRESPONDENCE

Michel F. Martinez Resendez, Tec de Monterrey, Monterrey, Mexico. Av. Batallon de San Patricio #112. Col. Real de San Agustin, N.L. CP. 66278 Mexico; tel: +52 (81) 88880551,
REFERENCES


