

## Renewing nurses' commitment to the global challenge of childhood vaccination after the COVID-19 pandemic

*Renovação do desafio para a enfermagem global na vacinação infantil do pós-pandemia da COVID-19*

Ivone Evangelista Cabral <sup>1, 2, 3, 4</sup>

 <https://orcid.org/0000-0002-1522-9516>

<sup>1</sup> State University of Rio de Janeiro, Faculty of Nursing, Rio de Janeiro, Brazil

<sup>2</sup> Universidade Federal do Rio de Janeiro, Nursing School Anna Nery, Rio de Janeiro, Brazil

<sup>3</sup> Universidade Federal do Rio de Janeiro, CNPq - CriaNeS<sup>®</sup> Research Group, Rio de Janeiro, Brazil

<sup>4</sup> State University of Rio de Janeiro, CNPq - CriaNeS<sup>®</sup> Research Group, Rio de Janeiro, Brazil

Between 2020 and 2021, the COVID-19 pandemic, caused by the Sars-CoV-2 virus, recorded more than 760 million cases, resulting in *excess mortality* with a global death toll of 14.9 million people (range 13.3 to 16.6 million). The World Health Organization (WHO) defines *excess mortality* as the difference between the total number of deaths due to a crisis (such as the COVID-19 pandemic) and the number of deaths expected to occur without the crisis. This difference also includes the number of deaths directly related to that crisis and those indirectly associated with it. Regarding the COVID-19 pandemic, the increase in vaccinated people worldwide caused a decrease in hospitalizations and deaths. This development led the WHO to declare the end of the pandemic on May 5, 2023 (WHO, 2023[RER1] [MOU2] a). Out of the 4.4 million COVID-19 deaths recorded in the COVerAGE-DB database, hosted, and maintained by the Max Planck Institute for Demographic Research (MPIDR), 0.4% (> 17,400) occurred in individuals under 20 years of age, 53% in adolescents aged 10-19 years, and 47% in children aged 0-9 years. These data indicate that the direct impact of COVID-19 on child and adolescent mortality was limited. However, the significant indirect effects of the pandemic on mortality are a cause for concern. These effects are primarily due to the strain on healthcare systems, the loss of family income due to unemployment, and difficulties in accessing healthcare and immunization (UNICEF, 2023).

The WHO uses the diphtheria, tetanus, and pertussis (DTP) vaccine as a global indicator of vaccination coverage. In 2022, 20.5 million children missed one or more doses of DTP3, with 14.3 million receiving no doses (these children are designated as zero-dose children). This number is an improvement compared to the 18.1 million zero-dose children recorded in 2021, but it is still higher than the 12.9 million zero-dose children recorded in 2019 (WHO, 2023b).

WHO Director-General Dr. Tedros Adhanom Ghebreyesus states, "These data are encouraging and a tribute to those who have worked so hard to restore life-saving immunization services after two years of sustained decline in immunization coverage" (WHO, 2023b).

The words of Dr Tedros prompt a reflection on the role of nurses in childhood immunization in the aftermath of the COVID-19 pandemic, as nurses are one of the most influential professional groups worldwide in implementing health promotion strategies, such as vaccination, to combat disease.

The COVID-19 pandemic has significantly impacted many areas, including childhood vaccination coverage. It should be noted that in 2019, before the COVID-19 pandemic, 18.4 million children did not receive immunizations. This number increased to 24.4 million in 2021 and exceeded 20.5 million in 2022 for routine immunizations (WHO, 2023b; UNICEF, 2023; WHO, 2023a). The gradual improvement of vaccination coverage highlights the ongoing need to intensify all efforts to rehabilitate, update, and strengthen healthcare systems to improve children's access to health services.

### Corresponding author

Ivone Evangelista Cabral

E-mail: [icabral444@gmail.com](mailto:icabral444@gmail.com)



Fundação  
para a Ciência  
e a Tecnologia

**How to cite:** Cabral. I. E. (2023). Renewing nurses' commitment to the global challenge of childhood vaccination after the COVID-19 pandemic. *Revista de Enfermagem Referência*, 6(2), e23ED4. <https://doi.org/10.12707/RVI23ED4>



According to data from the Organization for Economic Co-operation and Development (OECD), in 2022, Brazil had a childhood vaccination coverage of 80.7% for measles and 77.2% for DTP3. It is worth noting that Brazil has a universal healthcare system with a National Immunization Program that provides immunizations at no cost and has a vast network of services throughout the country. Portugal, which also has a universal healthcare system, has a coverage rate of 98% for measles and 99% for DTP3 (OECD, 2023).

Nursing professionals stand out among those who have worked and continue to work on the front line, developing actions based on knowledge generated by the progress of science and the ongoing improvement of nursing education, thus directly impacting vaccination adherence. Moreover, nursing professionals have broadened their participation in vaccination services beyond the technical dimension of vaccine administration.

Based on OECD data, the International Council of Nursing (Bajnok et al., & International Council of Nurses, 2018) analyzed nursing professionals' preparedness for vaccination in 15 countries. The results demonstrated nursing professionals' (a) commitment to providing information based on scientific evidence, (b) provision of health education and counselling to increase public awareness of vaccination benefits and risks and dispel common vaccination myths, (c) participation in immunization advisory committees, (d) monitoring of vaccination coverage through surveillance and provision of reminders about vaccination and vaccine expiration dates, (d) active outreach, and (e) participation in vaccine administration and (f) vaccine prescription.

Furthermore, the set of actions carried out for the general population is supplemented by additional actions aimed at the child population, such as actively searching for children who had missed one or more doses of vaccination and zero-dose children and making home visits for on-site vaccination of children treated at home, as well as carrying out epidemiologic surveillance, providing health education to counter disinformation and vaccine hesitancy, organizing public campaigns to educate about the false news circulating on social media, and promoting the development of new studies and scientific research (Garett & Young, 2021; Peters, 2022; Russell, 2021).

The issue of vaccine refusal or hesitancy has led to the proposal of a new nursing diagnosis (Puche-Louzán & Cantero-González, 2023) "Risk of Refusal of Vaccination" or "Riesgo de Negativa a la Vacunación," based on the NANDA International, Inc. taxonomy. The validation of animated infographics on the nursing process applied to the survey of topics has also been conducted to aid health education (Ferreira et al., 2023; Puche-Louzán & Cantero-González, 2023).

However, several warnings have been issued about nursing professionals who have chosen to be on the wrong side of vaccination history by voicing their skepticisms or engaging in unethical and science-denying practices, such as minimizing the risk of COVID-19 and encouraging vaccine refusal (Leung et al., 2022; Kelly & Jackson, 2022).

Nursing professionals must maintain an ethical balance between ensuring community health and respecting the beliefs and rights of families to make decisions about their children's health care. Families of children often struggle to recognize false and contradictory information circulating in the media about the safety of childhood vaccination. Therefore, nursing professionals promote moral agency by providing accurate information, clarifying the source of misinformation, and engaging in dialogue that considers the importance of individual autonomy and community health (Dinkins & Sorrell, 2021).

In the post-truth era, combating erroneous positions, such as vaccine misinformation, requires nursing professionals to develop political skills and technical expertise. Advocating for equity and social justice is essential to community empowerment and improving childhood vaccination indicators. Furthermore, confidence in the profession must be promoted as nursing plays a fundamental role in vaccination coverage.

## References

- Bajnok, I., Catton, H., Hons, E., Skinner, T., Shamian, J., Pavlovic, T., & International Council of Nurse. (2018). *The role of nurses in immunisation: A snapshot from OECD countries*. [https://www.icn.ch/sites/default/files/inline-files/IMMUNISATION\\_Report%20%28002%29.pdf](https://www.icn.ch/sites/default/files/inline-files/IMMUNISATION_Report%20%28002%29.pdf)
- Dinkins, C. S., & Sorrell, J. M. (2021). Ethics column: Resisting vaccination: How can nurses respond ethically? *The Online Journal of Issues in Nursing*, 26(1). <https://doi.org/10.3912/OJIN.Vol26No01EthCol01>
- Ferreira, F. S., Silva, F. C., Natarelli, T. R., Mello, D. F., & Fonseca, L. M. (2023). Child vaccination in animated infographic: Technology for permanent education about the nursing process. *Revista da Escola de Enfermagem da USP*, 57, e20220423. <https://doi.org/10.1590/1980-220X-REEUSP-2022-0423en>
- Garet, R., & Young, S. D. (2021) Online misinformation and vaccine hesitancy. *Translational of Behavioral Medicine*, 11(12), 2194-2199. <https://doi.org.10.1093/tbm/ibab128>
- Kelly, D., & Jackson, D. (2022) Nurses on the wrong side of history: Covid-19 risk minimization, vaccine refusal and social privilege. *Journal of Advanced Nursing*, 78(3), e43-e45. <https://doi.org/10.1111/jan.15092>
- Leung, C. L., Li, K. K., Wei, V. W., Tang, A., Wong, S. Y., Lee, S. S., & Kwok, K. O. (2022). Profiling vaccine believers and skeptics in nurses: A latent profile analysis. *International Journal of Nursing Studies*, 126, 104142. <https://doi.org.10.1016/j.ijnurstu.2021.104142>
- Organization for Economic Co-operation and Development. (2023). *Child vaccination rates*. <https://data.oecd.org/healthcare/child-vaccination-rates.htm>
- Peters, M. D. (2022). Addressing vaccine hesitancy and resistance for COVID-19 vaccines. *International Journal of Nursing Studies*, 13,



104241. <https://doi.org/10.1016/j.ijnurstu.2022.104241>

Puche-Louzán, F., & Cantero-González, M. L. (2023). Propuesta de diagnóstico de enfermería: Riesgo de negativa a la vacunación. *Enfermagem Global*, 22(69), 589-609. <https://dx.doi.org/10.6018/eglobal.529411>

Russell, N. (2021). Misinformation during COVID: How should nurse practitioners respond? *The Journal for Nurse Practitioners*, 17(6), 763-764. <https://doi.org/10.1016/j.nurpra.2021.03.013>

United Nations Children's Fund. (2023). *The state of the world's children 2023: For every child, vaccination*. <https://www.unicef.org/media/108161/file/SOWC-2023-full-report-English.pdf>

World Health Organization. (2023a). *Immunization coverage*. <https://www.who.int/news-room/fact-sheets/detail/immunization-coverage>

World Health Organization. (2023b). *Childhood immunization begins recovery after COVID-19 backslide*. <https://www.who.int/news/item/18-07-2023-childhood-immunization-begins-recovery-after-covid-19-backslide>

