

# ANALYSIS OF PREVENTABLE CHILD DEATHS IN THE STATE OF GOIÁS: IMPACTS OF THE COVID-19 PANDEMIC ON THE 2030 AGENDA GOALS

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## ABSTRACT

**INTRODUCTION:** Infant mortality, when recurrent in a specific epidemiological stratum, often reflects various incongruences in the exercise of the broad notion of health. Although the reduction of this scenario is proposed by the UN's 2030 Agenda, in Brazil, investigating the effectiveness of public health strategies is of utmost importance. **OBJECTIVE:** To analyze preventable child deaths in the state of Goiás, comparing the pre-pandemic period with the pandemic period, and to evaluate the impacts of this crisis on the 2030 Agenda goals. **METHODOLOGY:** This research is understood as a retrospective study of an exploratory and descriptive nature with a quantitative approach. The records used to fulfill the objective of interest were obtained from the Department of Informatics of the Unified Health System (DATASUS) regarding statistics of infant mortality from preventable causes in children aged 0 to 4 years. **RESULTS:** The data collected show that infant mortality is currently more concentrated in the early neonatal period, with a large part of the deaths occurring in the first 24 hours of life. However, from 2020, the year the COVID-19 pandemic began to affect globally, some indicators showed significant variations. **CONCLUSION:** Given this scenario, the development of new studies with this population is suggested, adopting a qualitative approach, to guide the formulation of policies aimed at improving healthcare assistance.

**Keywords:** Infant mortality; Preventable causes; COVID-19 Pandemic; Agenda 2030.

## INTRODUCTION

Infant mortality (in children under 1 year) and child mortality is an important health indicator, as high rates reflect the precarious living conditions and well-being of the population. Usually, this panorama ends up being related both to the lack of basic sanitation and the absence of food and nutritional security. Furthermore, factors associated with the mother's level of education and the quality of health services provided also reflect the predisposition to the maintenance of this scenario in society (BITTENCOURT, 2013).

In 2000, the reduction of infant mortality was defined by the United Nations (UN) as one of the eight major global problems that should be faced in the new millennium, with an expected reduction of two-thirds in the rate (BITTENCOURT, 2013). Brazil, after adopting policies and strategies in care and follow-up by the Unified Health System (SUS), was one of the 62 countries among the 191 UN members that achieved

the goal. From 1990 to 2015, Brazil reduced infant mortality by 73%, the number fell to 16 deaths per hundred thousand (BRASIL, 2015).

In this context of evolution, based on the foundations established by the Millennium Development Goals (MDGs), the 2030 Agenda was approved in September 2015, which contains 17 Sustainable Development Goals (SDGs). One of the targets, by 2030, is to end preventable deaths of newborns and children under 5 years of age, reducing neonatal mortality to at least 12 per 1,000 live births and under-5 mortality to at least 25 per 1,000 live births (SERINTER, 2022).

Due to the coronavirus (SARS-CoV-2) pandemic, there was a significant increase in morbimortality, with the emergence of Severe Acute Respiratory Syndrome (SARS), (MOURA *et al.*, 2023). The Government of the State of Goiás, in 2020, declared a public health emergency through Decree No. 9,633 of March 13, 2020. This scenario may have hampered progress in reducing infant mortality regarding preventable deaths. Given this context, this study aims to analyze preventable child deaths in the state of Goiás, comparing the pre-pandemic period with the pandemic period, and to evaluate the impacts of this crisis on the 2030 Agenda goals.

## **METHODOLOGY**

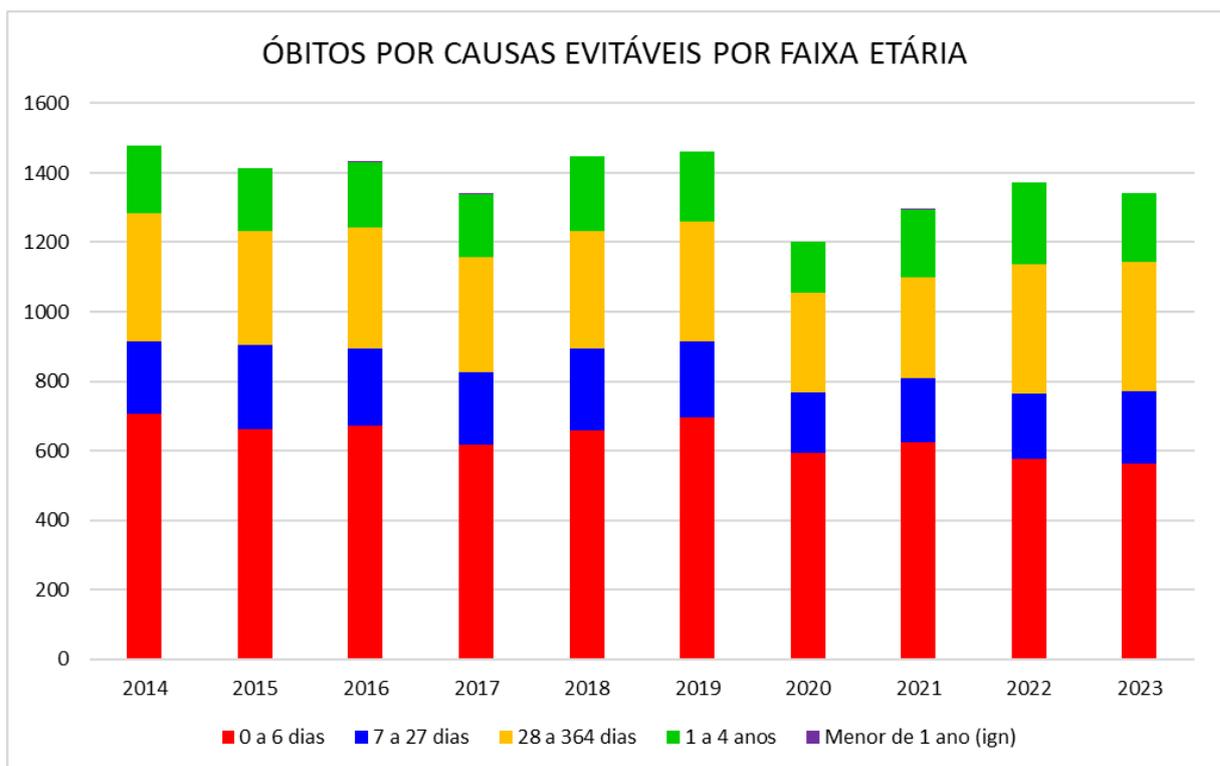
This is a retrospective study of an exploratory and descriptive nature with a quantitative approach. The analysis was conducted on August 30, 2024, based on data obtained from the Department of Informatics of the Unified Health System (DATASUS). The notifications of interest refer to statistics of infant mortality from preventable causes in children aged 0 to 4 years. The records had the SIM (Mortality Information System) as their source.

The analysis covered the pre-pandemic period (January 2014 to March 9, 2020) and the months related to the pandemic event (March 10, 2020 to May 5, 2023). The variables selected for analysis were infant mortality from preventable causes in children aged 0 to 4 years in the State of Goiás, considering the age group. Subsequently, the data were submitted to a descriptive analysis. Given the secondary and public nature of the information obtained, submission to the Research Ethics Committee was not required, in accordance with Resolution No. 510 of 2016.

## RESULTS

According to data from the last 10 years (2014 to 2023) on preventable deaths (Chart 1), variations were observed, but with a predominance of early neonatal mortality (0 to 6 days). The highest rate was in 2014, with 705 deaths, and the lowest in 2023, with 564 deaths. Infant mortality is currently more concentrated in the early neonatal period, especially in the first 24 hours of life.

**Gráfico 1:** Óbitos por causas evitáveis por faixa etária



Fonte: BRASIL, 2024.

In the subsequent age groups, 7 to 27 days (late neonatal) and 28 to 364 days (post-neonatal), a general trend of stability was observed, with some annual variations. Mortality in children aged 1 to 4 years remained relatively low. No significant variations were identified between the pre-pandemic and pandemic periods.

In the analysis of infant mortality from preventable causes, a higher rate of causes not clearly preventable was noted. There is a general decrease in deaths

preventable with adequate care during pregnancy, with the lowest rate in 2020 at the peak of the pandemic, showing a 15.48% drop. A reduction in the rates of causes related to adequate care during childbirth and newborn care was perceived, along with improvements in diagnosis and treatment.

The reduction in deaths from causes preventable by immunization remained very low, possibly due to the continuity of vaccination programs, while categories related to care for pregnant women and newborns showed fluctuations, reflecting the challenges imposed by the pandemic, such as the overload of health systems and possible interruptions in essential health services. Furthermore, the increase in "other causes (not clearly preventable)" and the stability in "ill-defined causes" indicate that the pandemic may have exacerbated pre-existing conditions, making it difficult to identify and manage less understood causes of death.

In short, while some improvements in child care and health were maintained, the pandemic brought new challenges that impact the effectiveness of preventive interventions and child health management, highlighting the need to strengthen the resilience of health systems to face future health crises.

## **CONCLUSION**

The infant mortality rate during the COVID-19 pandemic proved to be an important indicator by demonstrating an increase in mortality from "other causes (not clearly preventable)". An aggravation of pre-existing conditions is evidenced by making the management of causes of child deaths more difficult, compromising progress regarding the goals of reducing preventable deaths by 2030.

Thus, the development of new studies with this population is suggested, adopting different research approaches. Possible outcomes are shown to be necessary in the adoption of policies aimed at improving healthcare assistance, including care for women during pregnancy and the entire puerperium, as well as throughout the child's infancy, thus ensuring quality treatment.

## REFERENCES

BITTENCOURT, Sonia Duarte de Azevedo; DIAS, Marcos Augusto Bastos; WAKIMOTO, Mayumi Duarte. Vigilância do óbito materno, infantil e fetal e atuação em comitês de mortalidade. *In: Vigilância do óbito materno, infantil e fetal e atuação em comitês de mortalidade*. [s.l.: s.n.], 2013, p. 268–268. Disponível em: <<https://pesquisa.bvsalud.org/portal/resource/pt/eps-5155>>. Acesso em: 9 set. 2024.

MOTTA, Ana Carolina Souto Valente; BOUSQUET-SANTOS, Kelb; MOTOKI, Isabela Harumi Lopes; *et al.* Prevalence of ideal cardiovascular health in the Brazilian adult population - National Health Survey 2019. **Epidemiologia e Serviços de Saúde**, v. 32, p. e2022669, 2023. Disponível em: <<https://www.scielo.br/ij/ress/a/pJMmm8qmwddQcT8Q9q3477K/?lang=en>>. Acesso em: 9 set. 2024.

**ONU: Brasil cumpre meta de redução da mortalidade infantil.** Casa Civil. Disponível em: <<https://www.gov.br/casacivil/pt-br/assuntos/noticias/2015/setembro/onu-brasil-cumpre-meta-de-reducao-da-mortalidade-infantil>>. Acesso em: 9 set. 2024.

**Resolução nº 510, de 07 de abril de 2016 — Conselho Nacional de Saúde.** Disponível em: <<https://www.gov.br/conselho-nacional-de-saude/pt-br/acao-a-informacao/legislacao/resolucoes/2016/resolucao-no-510.pdf/view>>. Acesso em: 9 set. 2024.

SERINTER (org). **Agenda 2030: objetivos do desenvolvimento sustentável.** Objetivos do Desenvolvimento Sustentável. 2022. Elaborada por: Secretaria de Relações Internacionais. Disponível em: <https://www.internacional.df.gov.br/agenda-2030-objetivos-do-desenvolvimento-sustentavel/>. Acesso em: 30 ago. 2024.