JHGD
Journal of Human Growth and Development

CDH
www. jhgd.com.br

EDITORIAL

WHO Global Initiative for Childhood Cancer: progress and challenges for Cure All Framework

Luís Carlos Lopes-Júnior[a,b], Monnie Abraham[c], Regina Aparecida Garcia de Lima[d], María Liliana Vásquez Ponce[a], Sara Benitez Majano[a], Claudia Vanesa Sampor[a], Maurício Maza[a]

[a]Department of Noncommunicable Diseases and Mental Health, Pan American Health Organization, Washington, DC, USA.

[b]Nursing Department, Health Sciences Center, Universidade Federal do Espírito Santo, Vitória, ES, Brazil.

[c]Department of Global Pediatric Medicine, St Jude Children's Research Hospital, Memphis, Tennessee, USA.

[d]Departament of Maternal Infant Nursing and Public Health, University of São Paulo at Ribeirão Preto College of Nursing, Ribeirao Preto, Brazil

Corresponding author
lopesjlui@paho.org

Manuscript received: november 2025
Manuscript accepted: november 2025
Version of record online: november 2025

Orcid authors:
Luís Carlos Lopes-Júnior-
https://orcid.org/0000-0002-2424-6510
Monnie Abraham-
https://orcid.org/0000-0003-1053-2812
Regina Aparecida Garcia de Lima-
https://orcid.org/0000-0002-0611-5621
María Liliana Vásquez Ponce-
https://orcid.org/0000-0002-9584-3208
Sara Benitez Majano-
https://orcid.org/0000-0001-8032-9794
Claudia Vanesa Sampor-
https://orcid.org/0000-0002-2754-5313
Maurício Maza-
https://orcid.org/0000-0002-7898-472X

Abstract

Childhood cancer accounts for between 1% and 4% of global cancer cases, reaching up to 10% in low- and middle-income countries (LMICs), where more than 90% of cases occur and where significant inequalities in diagnosis and access to treatment persist. While up to 80% of children can be cured in high-income countries, mortality is almost four times higher in LMICs, driven by diagnostic delays, advanced stages at presentation, a lack of evidence-based protocols, a shortage of specialized professionals, and high rates of treatment abandonment. Given this scenario, childhood cancer should be prioritized on the public health agenda, as it is a cost-effective intervention and aligned with the fight against chronic noncommunicable diseases. To reduce disparities, in 2018 the WHO launched the Global Initiative for Childhood Cancer, which seeks to increase global survival to 60% by 2030, guided by the CureAll Framework, structured around strengthening specialized services, universal coverage, quality protocols, and robust monitoring systems, supported by advocacy, financing, and integrated governance.

Suggested citation: Lopes-Júnior LC, Abraham M, Lima RAG, Ponce MLV, Majano SB, Sampor CV, Maza M. WHO Global Initiative for Childhood Cancer: progress and challenges for Cure All Framework. *J Hum Growth Dev. 2025; 35(3):350-357.* DOI: 10.36311/jhgd.v35.18282

Over the past decade, the global scientific community has increasingly focused on understanding survival outcomes among patients with cancer, particularly in pediatric and adolescent populations[1–4]. This growing attention reflects a pressing concern: the persistent disparities in survival rates for children and adolescents with cancer, especially in low- and middle-income countries (LMICs), where multifaceted barriers to healthcare access remain a major challenge[5].

Malignant neoplasms in individuals aged 0 to 19 years account for approximately 1–4% of all cancer cases in most countries. However, in regions where children represent a significant proportion of the population—such as LMICs—this burden may rise to as much as 10%[6–8]. Despite global advances in pediatric oncology, stark contrasts remain. In high-income countries (HICs), up to 80% of children diagnosed with cancer can be cured, largely due to early detection and access to specialized care. Conversely, children in LMICs are nearly four times more likely to die from the disease, primarily due to delayed diagnosis, limited access to treatment, and insufficient supportive care[5,9].

The critical factors underlying this gap include: (i) diagnostic delays and fragmented access to care, (ii) late-stage disease at presentation, (iii) limited availability of evidence-based treatment protocols and skilled professionals, and (iv) high rates of treatment abandonment resulting from the financial and social burdens placed on families[10,11]. Despite these disparities, it is estimated that over 90% of all childhood cancer cases occur in LMICs, where systems often lack the resources to provide timely and comprehensive care[6,9,12].

Positioning childhood cancer as a priority in the public health agenda is not only feasible but also cost-effective and impactful. Such prioritization represents a unique opportunity to reduce preventable mortality and suffering while reinforcing strategies for the broader control of noncommunicable diseases (NCDs)[13-15].

In response to these global disparities, the World Health Organization (WHO), in partnership with the International Agency for Research on Cancer (IARC) and other UN entities, launched the Global Initiative for Childhood Cancer (GICC) in 2018. This initiative seeks to ensure that every child with cancer—regardless of geographic location or cancer type—has access to timely diagnosis, high-quality treatment, and comprehensive supportive care, thereby enabling them to live not only longer but also with dignity and quality of life[14,15]. The GICC aligns with the targets of the WHO Global Action Plan for the Prevention and Control of NCDs and the United Nations 2030 Agenda for Sustainable Development. One of its central goals is to increase global survival rates for childhood cancer to at least 60% by the year 2030. To achieve this, the initiative emphasizes two main priorities: (i) strengthening country-level capacity to provide high-quality pediatric oncology services, and (ii) integrating childhood cancer into global, regional, and national cancer control agendas[5].

To operationalize these aims, the WHO introduced the CureAll Framework, a strategic model that supports countries in strengthening their health systems across the entire continuum of care. The framework is built upon four foundational pillars—Centers of excellence and care networks, Universal health coverage, Regimens for evidence-based diagnosis and treatment, and Evaluation and monitoring—and three key enablers: Advocacy, Leveraged financing, and Linked governance[5], as shown in Figure 1.

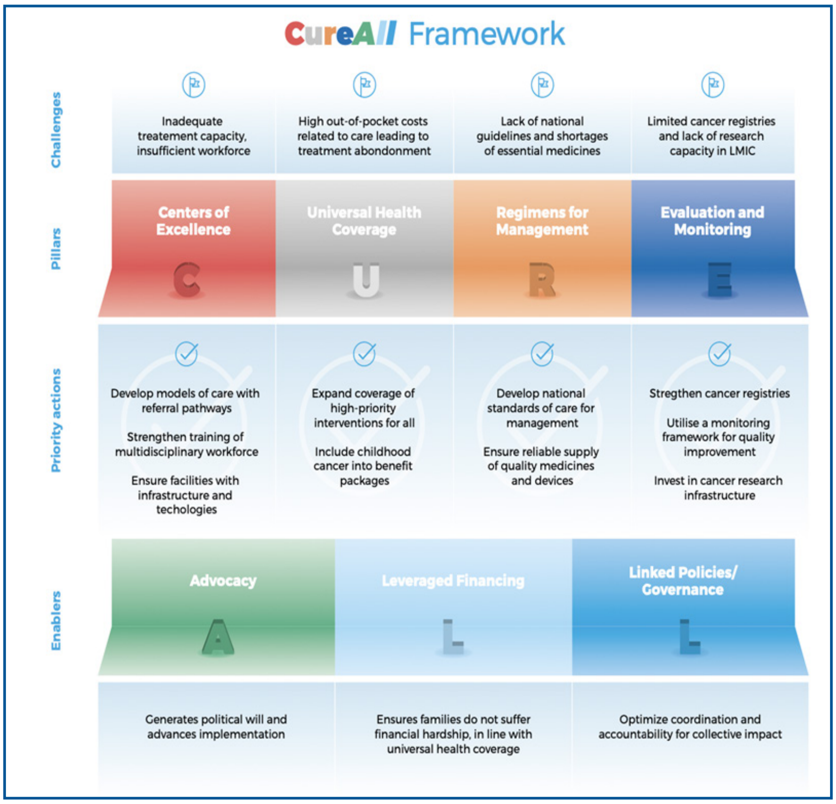

Figure 1: CureAll Framework. Fonte: WHO, 2021.

This comprehensive package enables governments and stakeholders to design and implement context-specific, sustainable solutions to reduce inequities, enhance early detection and treatment outcomes, and address the long-term consequences of cancer therapies in children and adolescents. It also offers a unique opportunity for countries to accelerate action and monitor progress toward the elimination of avoidable childhood cancer deaths, particularly in resource-constrained settings.

Implications for Global Health Systems

In Latin America, pediatric cancer care remains highly heterogeneous due to the region's diversity in health system organization, resource allocation, care delivery models, and population needs[16]. Compounding this complexity is the limited availability and quality of epidemiological data across many countries, especially regarding incidence, survival, and mortality. These limitations in cancer registration and surveillance constrain regional comparability and hinder the formulation of evidence-informed policies[9,11].

Similar to global trends, leukemia is the most common childhood cancer across Latin American countries, followed by central nervous system (CNS) tumors. However, survival outcomes for pediatric acute lymphoblastic leukemia (ALL) are markedly variable. Five-year relative survival rates range from as low as 49.8% in Ecuador to over 93% in Puerto Rico, highlighting disparities both within and across nations[17].

A particularly pressing challenge in several Latin American countries is the shortage of pediatric hematologists and oncologists, which contributes to diagnostic delays, long travel distances for treatment—sometimes even to neighboring countries—and the use of non-standardized treatment protocols[4,15,18]. These systemic constraints directly impact patient survival and treatment continuity.

Despite substantial gains in pediatric cancer outcomes in high-income countries over the past decades—considered one of modern medicine's greatest achievements—these improvements have not been equitably replicated in low- and middle-income countries (LMICs)[17]. In many LMICs, reliable data on pediatric cancer incidence and outcomes are either incomplete or absent, largely due to the lack of population-based cancer registries and functioning vital statistics systems required to generate accurate estimates[6,9,13,19].

An international study analyzing mortality trends in childhood cancer across the Americas and Australasia found steady annual reductions of 2–3% in Australasia, 1.5–2% in North America and Chile, and about 1% in Argentina. However, other Latin American countries did not show substantial improvements[20]. Mortality rates for leukemia declined in most settings, but less favorable trends were observed for CNS tumors, especially in Latin America. In 2016, mortality from all childhood cancers ranged from 4–6 per 100,000 boys and 3–4 per 100,000 girls in Latin America, compared to lower rates of 2–3 per 100,000 in boys and approximately 2 per 100,000 in girls in North America and Australasia[20].

Unlike adult cancers, pediatric malignancies are not amenable to population-based screening or prevention through lifestyle interventions. Their outcomes instead depend critically on timely and accurate diagnosis, appropriate treatment, and access to specialized care[10]. Therefore, increasing survival in these populations will require strategic investments in health system planning and governance, particularly in LMICs[7].

Robust, high-quality data on cancer incidence and outcomes are foundational to the design and implementation of national and regional cancer control strategies. Population-Based Cancer Registries (PBCRs), Hospital-Based Cancer Registries (HBCRs), and national mortality surveillance systems represent the cornerstone infrastructure for monitoring trends, guiding public health responses, and prioritizing research and resource allocation in oncology[13,14, 21-23].

Bridging the Gap: Regional Action for the CureAll Framework in Latin America and the Caribbean

While high-income countries (HICs) such as the United States have achieved childhood cancer survival rates nearing 85% over recent decades[8], this progress remains unevenly distributed across the globe. In Latin America and the Caribbean (LAC), wide disparities persist and, in some cases, are widening, driven by systemic limitations in healthcare infrastructure, access to timely diagnostics, and continuity of care[24,25]. In low- and middle-income countries (LMICs), where approximately 80% of all childhood cancer cases occur, preventable deaths often stem from late diagnosis, misdiagnosis, treatment abandonment, malnutrition, toxicity-related complications, and limited access to effective therapeutic protocols[12, 26, 27].

In response to this pressing inequity, the Pan American Health Organization (PAHO), in collaboration with St. Jude Children's Research Hospital and a broad network of regional partners, has prioritized efforts to enhance pediatric cancer outcomes in the LAC region[5,24]. As part of its commitment to accelerate the implementation of the WHO Global Initiative for Childhood Cancer (GICC), PAHO has fostered the creation of context-sensitive, culturally relevant technical resources aligned with the CureAll Framework, which provides a strategic roadmap for improving childhood cancer care through systemic action[4,11, 24].

Beginning in early 2021, PAHO convened multidisciplinary working groups to address the leading barriers to care and to promote collaborative solutions tailored to regional needs. These efforts culminated in the establishment of seven technical groups focused on early detection, pediatric oncology nursing, psychosocial care, nutrition, supportive care, treatment abandonment, and palliative care. Regular virtual dialogues—organized with support from PAHO programs, St. Jude global mentors, and international stakeholders—ensured knowledge exchange and regional ownership throughout the process[4,11, 24].

Between April and December 2021, a total of 202 professionals from diverse disciplines participated in 43 collaborative meetings, generating a suite of 14 regionally focused resources. These included: (i) four regional situation analyses; (ii) four technical guidance documents;

(iii) two online training courses; (iv) a collection of national epidemiological profiles; (v) educational materials for caregivers and families; and (vi) two regional awareness campaigns[4,11, 24].

The CureAll-aligned approach promoted by PAHO and its collaborators reflects a model of sustained regional engagement, grounded in the principles of equity, capacity building, and systems strengthening. These technical products represent both the tangible outputs of the Global Initiative in the Americas and a replicable model for other regions seeking to advance pediatric cancer control.

Nonetheless, ongoing research and implementation science efforts are needed to evaluate the real-world impact of these strategies on survival outcomes, treatment adherence, and quality of care. Continuous monitoring, stakeholder feedback, and adaptive learning will be critical to ensure the long-term success and scalability of the GICC's objectives across varying national contexts.

Strategic Implementation of the CureAll Framework: Guidance for Policymakers and Program Managers

Political will remains one of the most decisive enablers in expanding access to timely and effective care for children and adolescents with cancer. Elevating childhood cancer on national health agendas depends heavily on sustained advocacy directed at decision-makers. Local authorities and policymakers are uniquely positioned to influence legislation, mobilize funding, and integrate cancer control measures into national health plans[4,5].

Effective advocacy strategies must engage a broad spectrum of stakeholders—including patient organizations, professional societies, and civil society—to create unified demands for action. This includes conducting and disseminating situational analyses at the national and regional levels, aligning advocacy with existing policies and global frameworks, and using media and communication platforms to generate public awareness. When advocacy successfully fosters political prioritization, it can catalyze systemic change through increased budgetary allocations, policy reform, and service delivery improvements[5,11,24].

A growing body of evidence from LMICs has identified the key determinants of poor outcomes in pediatric cancer, including delayed or missed diagnosis[28], treatment abandonment[29], malnutrition[30], understaffing of nursing teams[31], and insufficient access to supportive and palliative care services[32]. These findings underscore the need for evidence-informed policymaking to reduce preventable mortality and improve quality of life for children affected by cancer.

To that end, policymakers must recognize and respond to these determinants by implementing integrated solutions. For example, policies promoting early warning signs recognition and timely referrals can help reduce delays in diagnosis. Similarly, integrating nutritional support and psychosocial care into treatment protocols can mitigate toxicities and improve adherence. Data derived from country-specific childhood cancer profiles, regional technical reports, and national situation assessments provide valuable insights to inform where investments are most urgently needed[4,11].

In parallel, the development and dissemination of technical resources aimed at healthcare professionals are essential for translating policy into practice. Guidelines, virtual training modules, and clinical protocols—tailored to the local context—empower frontline providers to deliver care that is both evidence-based and culturally appropriate[4]. These resources support the consistent implementation of the CureAll pillars by standardizing clinical pathways and strengthening workforce capacity.

Despite increasing awareness, pediatric cancer continues to receive insufficient attention in many LAC countries. The region bears a high burden of morbidity and mortality from childhood cancers, yet access to services remains fragmented and inequitable, resulting in substantial disparities in outcomes across and within countries[4,11]. Addressing this gap requires more than isolated initiatives; it demands cohesive, system-level reforms that embed childhood cancer control into broader child health and noncommunicable disease strategies.

Integrating childhood cancer into national public health agendas is not only critical for improving survival but also for strengthening health systems more broadly. Targeted, context-sensitive implementation of the CureAll framework offers a powerful opportunity to build more equitable, resilient, and responsive systems of care for all children, regardless of where they live.

Concluding Remarks and Future Directions

The WHO Global Initiative for Childhood Cancer, through the CureAll Framework, represents a turning point in the global response to childhood cancer. By prioritizing equitable access to timely diagnosis, standardized treatment, and comprehensive supportive care, the initiative offers a scalable model to reduce disparities and improve survival outcomes—particularly in low- and middle-income countries, where the burden is greatest and resources remain limited.

The Latin America and Caribbean (LAC) region has demonstrated significant momentum in advancing the goals of the initiative, with the development of technical resources, formation of regional working groups, and growing political commitment. However, progress is still uneven. Continued success will require sustained investment in health systems, robust data collection through cancer registries, and coordinated multisectoral action that extends beyond the health sector.

As global childhood cancer survival improves, the imperative is not only to treat but to do so with equity, dignity, and quality. Governments, donors, healthcare institutions, and civil society must align efforts to ensure that no child is left behind due to where they live or the limitations of their healthcare system.

To achieve this, we recommend the following strategic actions:

1. Elevate childhood cancer as a public health priority in national NCD strategies and pediatric health agendas.
2. Invest in cancer surveillance infrastructure, including population-based and hospital-based

cancer registries.

3.Strengthen the pediatric oncology workforce through context-specific education and training.

4.Develop and implement evidence-based clinical guidelines adapted to local realities.

5.Ensure sustainable financing for childhood cancer programs, including through universal health coverage mechanisms.

6.Promote family- and community-centered care, including psychosocial support and palliative care from diagnosis onward.

The path toward reducing avoidable deaths from childhood cancer is complex, but the roadmap is clear. The CureAll Framework provides the structure; what remains is the political will, institutional commitment, and collective action to turn strategy into survival. By acting together—locally, regionally, and globally—we can transform the reality of childhood cancer care and give every child the chance to not only survive, but to thrive.

The studies compiled in this issue reaffirm the Journal of Human Growth and Development's commitment to advancing interdisciplinary knowledge focused on human growth, development, and well-being across diverse life stages and contexts[33–46]. The articles span a broad scientific landscape, ranging from the economic potential of preconception care[33] and the persistent burden of childhood morbidity and mortality due to diarrheal diseases in vulnerable populations[34] to the clinical contributions of emerging technologies—such as transcranial direct current stimulation combined with virtual reality[35] and CFTR modulator therapy for cystic fibrosis[37].

Contemporary public health challenges also emerge, including gaps in breastfeeding knowledge among pregnant women[36], the inappropriate use of anorexigenic and stimulant medications by adolescents[39], and the adverse effects of sedentary behavior on the quality of life of patients undergoing hemodialysis[40]. Trends in COVID-19 among children[41] and persistent inequities in sanitation[42] further illustrate the regional disparities that shape human development across Brazil[41–42].

Finally, research on peripheral ischemia[44] and vitamin D supplementation[45] broadens the spectrum of promising therapeutic approaches[44–45], reinforcing the importance of innovative, evidence-informed strategies to promote health across all stages of life.

REFERENCES

1. Piñeros M, et al. Scaling up the surveillance of childhood cancer: a global roadmap. JNCI J Natl Cancer Inst. 2021 May 20. doi:10.1093/jnci/djaa069.
2. Poulalhon C, et al. Factors associated with 5- and 10-year survival among a recent cohort of childhood cancer survivors (France, 2000–2015). Cancer Epidemiol. 2021 Aug;73:101950.
3. Ren HM, et al. Global, regional, and national burden of cancer in children younger than 5 years, 1990–2019: analysis of the Global Burden of Disease Study 2019. Front Public Health. 2022 Jun 21;10:910641. doi:10.3389/fpubh.2022.910641.
4. Vásquez L, Fuentes-Alabi S, Benitez-Majano S, Ribeiro KB, Abraham M, Agulnik A, et al. Collaboration for success: the Global Initiative for Childhood Cancer in Latin America. Rev Panam Salud Publica. 2023;47:e144. doi:10.26633/RPSP.2023.144.
5. World Health Organization. CureAll framework: WHO Global Initiative for Childhood Cancer. Increasing access, advancing quality, saving lives. Geneva: WHO; 2021. Available from: https://apps.who.int/iris/handle/10665/347370
6. Bhakta N, Force LM, Allemani C, Atun R, Bray F, Coleman MP, et al. Childhood cancer burden: a review of global estimates. Lancet Oncol. 2019 Jan;20(1):e42–53. doi:10.1016/S1470-2045(18)30761-7.
7. GBD Childhood Cancer Collaborators. The global burden of childhood and adolescent cancer in 2017: an analysis of the Global Burden of Disease Study 2017. Lancet Oncol. 2019;20(1211):1211–25.
8. Siegel RL, Kratzer TB, Giaquinto AN, Sung H, Jemal A. Cancer statistics, 2025. CA Cancer J Clin. 2025 Jan-Feb;75(1):10–45. doi:10.3322/caac.21871.
9. Organización Panamericana de la Salud (OPAS). La práctica de la enfermería oncológica pediátrica en América Latina y el Caribe. Washington, D.C.: OPS; 2022. Disponible en: https://doi.org/10.37774/9789275326732
10. Gupta S, et al. Paediatric cancer stage in population-based cancer registries: the Toronto consensus principles and guidelines. Lancet Oncol. 2016 Apr;17(4):e163–72. doi:10.1016/S1470-2045(15)00539-2.
11. Vásquez L, Fuentes-Alabí S, Loggetto P, Benitez-Majano S, Metzger ML, Jarquin-Pardo M, et al. Advances in the Global Initiative for Childhood Cancer: implementation in Latin America and the Caribbean. Rev Panam Salud Publica. 2023;47:e128. doi:10.26633/RPSP.2023.128.
12. Rodriguez-Galindo C, Friedrich P, Morrissey L, Frazier L. Global challenges in pediatric oncology. Curr Opin Pediatr. 2013 Feb;25(1):3–15. doi:10.1097/MOP.0b013e32835c1cbe.

13. Lima RAG, Lopes-Júnior LC, Maia EBS, Fuentes-Alabi S, Ponce MLV. Global Initiative for Childhood Cancer Control: Increasing access, improving quality, saving lives. Rev Lat Am Enfermagem. 2023 Oct 6;31:e3998. doi:10.1590/1518-8345.0000.3998.
14. Lima RAG, Maia EBS, Lopes-Júnior LC. Global initiative for childhood cancer and the practice of pediatric oncology nursing in Latin America and the Caribbean. Ciênc Saúde Colet. 2023;28:2455–7.
15. Lopes-Júnior LC, Lima RAG, Maia EBS, Ribeiro KCB, Fuentes-Alabí S, Sullivan CE, Abraham M, Weber LS, Ponce LV. Essential core competencies for scope of practice of paediatric oncology nurses in Latin America: a scoping review protocol. BMJ Open. 2022 Jul 22;12(7):e061853. doi:10.1136/bmjopen-2022-061853.
16. Guzman CP, et al. Childhood cancer in Latin America: from detection to palliative care and survivorship. Cancer Epidemiol. 2021 Apr;71:101837.
17. Allemani C, et al. Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37,513,025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries. Lancet. 2018;391(10125):1023–75. doi:10.1016/S0140-6736(17)33326-3.
18. Ferlay J, et al. Estimating the global cancer incidence and mortality in 2018: GLOBOCAN sources and methods. Int J Cancer. 2019;144(8):1941–53.
19. Steliarova-Foucher E, et al. International incidence of childhood cancer, 2001–10: a population-based registry study. Lancet Oncol. 2017 Jun;18(6):719–31. doi:10.1016/S1470-2045(17)30186-9.
20. Malvezzi M, et al. Childhood cancer mortality trends in the Americas and Australasia: an update to 2017. Cancer. 2021 May 27;127(18):3445–56. doi:10.1002/cncr.33642.
21. Grippa WR, Pessanha RM, Dell'Antonio LS, Dell'Antonio CSDS, Salaroli LB, Lopes-Júnior LC. Completeness of variables in Hospital-Based Cancer Registries for prostatic malignant neoplasm. Rev Bras Enferm. 2024 Jul 29;77(3):e20230467. doi:10.1590/0034-7167-2023-0467.
22. Lopes-Júnior LC, Dell'Antonio LS, Pessanha RM, Dell'Antonio CS, da Silva MI, de Souza TM, Grassi J. Completeness and consistency of epidemiological variables from hospital-based cancer registries in a Brazilian state. Int J Environ Res Public Health. 2022 Sep 22;19(19):12003. doi:10.3390/ijerph191912003.
23. Pessanha RM, Grippa WR, Neto LCBS, Dell'Antonio LS, Dell'Antonio CSS, Lopes-Júnior LC. Trends of incompleteness of epidemiological variables in hospital cancer registries of women with malignant breast neoplasia in Espírito Santo, Brazil. J Hum Growth Dev. 2025;35(1):111–23. doi:10.36311/jhgd.v35.15861.
24. Pan American Health Organization. Childhood Cancer Profiles 2021. Washington, DC: PAHO; 2021 [cited 2023 Feb 28]. Available from: https://www.paho.org/en/documents/childhood-cancer-profiles-region-latin-america-and-caribbean
25. Ward ZJ, Yeh JM, Bhakta N, Frazier AL, Girardi F, Atun R. Global childhood cancer survival estimates and priority-setting: a simulation-based analysis. Lancet Oncol. 2019 Jul;20(7):972–83. doi:10.1016/S1470-2045(19)30273-6.
26. Agulnik A, Cárdenas A, Carrillo AK, Bulsara P, Garza M, Alfonso Carreras Y, et al. EVAT Study Group. Clinical and organizational risk factors for mortality during deterioration events among pediatric oncology patients in Latin America: a multicenter prospective cohort. Cancer. 2021 May 15;127(10):1668–78. doi:10.1002/cncr.33411.
27. Lam CG, Howard SC, Bouffet E, Pritchard-Jones K. Science and health for all children with cancer. Science. 2019 Mar 15;363(6432):1182–6. doi:10.1126/science.aaw4892.
28. Zabih W, Thota AB, Mbah G, Freccero P, Gupta S, Denburg AE. Interventions to improve early detection of childhood cancer in low- and middle-income countries: a systematic review. Pediatr Blood Cancer. 2020 Dec;67(12):e28761. doi:10.1002/pbc.28761.
29. Friedrich P, Lam CG, Itriago E, Perez R, Ribeiro RC, Arora RS. Magnitude of treatment abandonment in childhood cancer. PLoS One. 2015 Sep 30;10(9):e0135230. doi:10.1371/journal.pone.0135230.
30. Joffe L, Ladas EJ. Nutrition during childhood cancer treatment: current understanding and a path for future research. Lancet Child Adolesc Health. 2020 Jun;4(6):465–75. doi:10.1016/S2352-4642(19)30407-9.
31. Assaye AM, Wiechula R, Schultz TJ, Feo R. Impact of nurse staffing on patient and nurse workforce outcomes in acute care settings in low-and middle-income countries: a systematic review. JBI Evid Synth. 2021 Apr 1;19(4):751–93.

32. Baker JN, Hinds PS, Spunt SL, Barfield RC, Allen C, Powell BC, et al. Integration of palliative care practices into the ongoing care of children with cancer: individualized care planning and coordination. Pediatr Clin North Am. 2008 Feb;55(1):223–50, xii. doi:10.1016/j.pcl.2007.10.011.

33. Poix S, Elmusharaf K. Investing in preconception care: lessons learned from a multi-component research on the economics of preconception health and care. J Hum Growth Dev. 2025; 35(3):358-367. DOI: http://doi.org/10.36311/jhgd.v35.18278

34. Na Blei M, Francisco PMSB, Cordeiro MRD. Morbidity and Mortality of Children and Adolescents Due to Diarrhea in Guinea-Bissau, West Africa. J Hum Growth Dev. 2025; 35(3):368-376. DOI: http://doi.org/10.36311/jhgd.v35.18269

35. Simcsik AO, Garbin JAL, Bethiol AL, Rodrigues FD, Moraes IAP, Silva-Magalhães TD, Carvalho MJ, Galhardoni R, Raimundo RD, Monteiro CBM, Magalhães FH. Effects of transcranial direct current stimulation (tdcs) during a virtual reality task in individuals with parkinson's disease: a randomized, placebo-controlled, and triple-blind Clinical Trial. J Hum Growth Dev. 2025; 35(3):377-391. DOI: http://doi.org/10.36311/jhgd.v35.18280

36. Prado CB, Santos Neto ET, das Neves GPB, Pedraza DF, Salaroli LB. Knowledge about breastfeeding of pregnant women in espírito santo. J Hum Growth Dev. 2025; 35(3):392-404. DOI: http://doi.org/10.36311/jhgd.v35.18271

37. Arpini LSB, Paro FM, Liberato FMG, Santos SS, Monteiro GTR.Clinical evolution of children and adolescents with cystic fibrosis after six months of triple modulator therapy. J Hum Growth Dev. 2025; 35(3):405-411. DOI: http://doi.org/10.36311/jhgd.v35.18273

38. Souza JG, Canese EJS. Technical, microbiological and structural evaluation of disposable hypodermic syringes during drug aspiration. J Hum Growth Dev. 2025; 35(3):412-418. DOI: http://doi.org/10.36311/jhgd.v35.17448

39. Martins AD, Leite FMC. Use of anorexigenic and stimulant drugs among adolescents: a school-based study in the vitória metropolitan area. J Hum Growth Dev. 2025; 35(3):419-430. DOI: http://doi.org/10.36311/jhgd.v35.17821

40. Lopes DS, Valladão MF, Duarte H, Paro FM, Moulim MCB, Wittmer VL. Quality of life, musculoskeletal symptoms, and physical activity level in patients with chronic kidney disease on regular hemodialysis: a cross-sectional study. J Hum Growth Dev. 2025; 35(3):431-440. DOI: http://doi.org/10.36311/jhgd.v35.18279

41. Júnior JB, Barreto YE, Riera ARP. Temporal trend of COVID-19 in children aged zero to nine years in the states of Alagoas and Rio Grande do Sul, Brazil, 2020–2022. J Hum Growth Dev. 2025; 35(3):441-453. DOI: http://doi.org/10.36311/jhgd.v35.18079

42. Ferreira MCC, Cavalcanti MPE, Martins CMH, Bezerra IMP, Tavares CM. Brazilian public expenditures on sanitation and its impacts on water quality and the Human Development Index. J Hum Growth Dev. 2025; 35(3):454-463. DOI: http://doi.org/10.36311/jhgd.v35.18122

43. Sousa LMM, Ricciard ESP, Barros JSV, Gadelha JG, Verli MVA, Bezerra JA, Leitão FNC, Silva CF, Morais MJD, Neto AMM, Gonçalves LCO, Abreu LC, Silva RPM. Sitting time, physical activity, and academic performance of undergraduate students post-covid-19 emergency phase. J Hum Growth Dev. 2025; 35(3):464-475. DOI: http://doi.org/10.36311/jhgd.v35.18270

44. Rodrigues FL, França GUS, Silva JB, Lima LN, Furst RVC, Fornitano ALP, Lolli G, Correa JA. Tibial cortex transverse transport: a promising alternative for critic ischemic infrapatellar lesions. J Hum Growth Dev. 2025; 35(3):476-485. DOI: http://doi.org/10.36311/jhgd.v35.18276

45. Campanholi RA, Gascón TM, Veiga GL, Pereira EC, Azzalis LA, Alves BCA, Fonseca FLA, Feder D. Effects of vitamin D administration on mice muscle strength. J Hum Growth Dev. 2025; 35(3):486-493. DOI: http://doi.org/10.36311/jhgd.v35. 18281

Resumo

O câncer infantil representa entre 1% e 4% dos casos globais de neoplasias, podendo chegar a 10% em países de baixa e média renda (LMICs), onde ocorrem mais de 90% dos casos e onde persistem grandes desigualdades no diagnóstico e no acesso ao tratamento. Enquanto em países de alta renda até 80% das crianças podem ser curadas, em LMICs a mortalidade é quase quatro vezes maior, impulsionada por atrasos diagnósticos, estágios avançados na apresentação, escassez de protocolos baseados em evidências, falta de profissionais especializados e altas taxas de abandono terapêutico. Diante desse cenário, o câncer infantil deve ser priorizado na agenda de saúde pública, por ser uma intervenção custo-efetiva e alinhada ao enfrentamento das doenças crônicas não transmissíveis. Para reduzir as disparidades, a OMS lançou em 2018 a Global Initiative for Childhood Cancer, que busca elevar a sobrevivência global para 60% até 2030, orientada pelo CureAll Framework, estruturado no fortalecimento de serviços especializados, na cobertura universal, em protocolos de qualidade e em sistemas robustos de monitoramento, apoiados por advocacy, financiamento e governança integrada.