

Developing and sustaining high-quality care for children with cancer: the WHO Global Initiative for Childhood Cancer

Roberta Ortiz,¹ Liliana Vásquez,² Bishnu Giri,³ Sharon Kapambwe,⁴ Issimouha Dille,⁴ Lamia Mahmoud,⁵ Sukhbaatar Bolormaa,⁶ Nazokat Kasymova⁷ and Andre Ilbawi¹

Suggested citation Ortiz R, Vásquez L, Giri B, Kapambwe S, Dille I, Mahmoud L, et al. Developing and sustaining high-quality care for children with cancer: the WHO Global Initiative for Childhood Cancer. *Rev Panam Salud Publica.* 2023;47:e164. <https://doi.org/10.26633/RPSP.2023.164>

ABSTRACT

Cancer is a major public health concern, impacting nearly 20 million people each year, and it is responsible for 1 in 6 deaths worldwide. The burden of cancer is increasing rapidly, straining health systems that are unable to prevent and manage the disease. Childhood cancer constitutes a significant and relevant public health challenge; it was the ninth leading cause of childhood disease globally, according to findings by the Global Burden of Disease 2017 study. Almost 80% of all children diagnosed with cancer live in low- and middle-income countries where treatment is often unavailable or unaffordable. As a result, only about 15–45% of these children survive compared with more than 80% in high-income countries. This represents a great health inequity. Delivering on the mandate provided by World Health Assembly resolution 70.12, WHO together with St. Jude Children's Research Hospital and other global partners launched the Global Initiative for Childhood Cancer at the United Nations General Assembly during the third High-level Meeting on the prevention and control of noncommunicable diseases in September 2018. The Initiative aims to increase global survival for children with cancer to at least 60% by 2030, while reducing suffering for all children with cancer. Five years after launching the Initiative, more than 70 countries across the World Health Organization's 6 regions have advanced to different phases of action through implementation of the Initiative's CureAll framework for action. Many successful approaches to implementing the CureAll pillars and enablers have demonstrated that improving care for children with cancer in low- and middle-income countries is possible as long as there is strong political will, multisectoral commitments and strategic investment.

Keywords

Child health; neoplasms; health policy.

With the understanding that where a child lives should not determine their capacity to survive, and to deliver on the mandate in World Health Assembly resolution 70.12, adopted in 2017, the World Health Organization (WHO) together with St.

Jude Children's Research Hospital and other global partners launched the Global Initiative for Childhood Cancer at the United Nations General Assembly during the third High-level Meeting on the prevention and control of noncommunicable

¹ Department of Noncommunicable Diseases; Management, Screening, Diagnosis and Treatment Unit; World Health Organization, Geneva, Switzerland

² Department of Noncommunicable Diseases and Mental Health, Pan American Health Organization, Washington, D.C., United States of America

³ Department of Noncommunicable Diseases and Healthier Populations, World Health Organization, Regional Office for South-East Asia, New Delhi, India

⁴ Universal Health Coverage/Communicable and Noncommunicable Diseases Cluster, World Health Organization, Regional Office for Africa, Brazzaville, Congo

⁵ Department of Noncommunicable Diseases and Mental Health, World Health Organization, Regional Office for the Eastern Mediterranean, Cairo, Egypt

⁶ World Health Organization, Mongolia Country Office, Ulaanbaatar, Mongolia

⁷ World Health Organization, Uzbekistan Country Office, Tashkent, Uzbekistan

diseases in September 2018. The Initiative aims to increase global survival for children with cancer to at least 60% by the year 2030, while reducing their suffering.

Cancer is a major public health concern, impacting nearly 20 million people each year, and it is responsible for 1 in 6 deaths worldwide (1). The burden of cancer is increasing rapidly, straining health systems that are unable to prevent and manage the disease. This results in avoidable and premature deaths, threats to health budgets and economies, and financial catastrophe for individuals and families.

Childhood cancer constitutes a significant and relevant public health challenge; it was the ninth leading cause of childhood disease globally, according to findings by the Global Burden of Disease 2017 study (1). Almost 80% of all children diagnosed with cancer live in low- and middle-income countries (LMICs) where treatment is often unavailable or unaffordable. As a result, only about 15–45% of these children survive compared with more than 80% in high-income countries (2).

The Global Initiative for Childhood Cancer will accomplish its goals through its two objectives: to increase the capacities of countries to provide quality services for children with cancer and to increase the prioritization of childhood cancer in national policies and program (3).

Five years since launching the Initiative, more than 70 countries across the 6 WHO regions have advanced to different phases of action through implementation of the 10 priority projects and interventions outlined in the Initiative's *CureAll* framework for action (Figure 1).

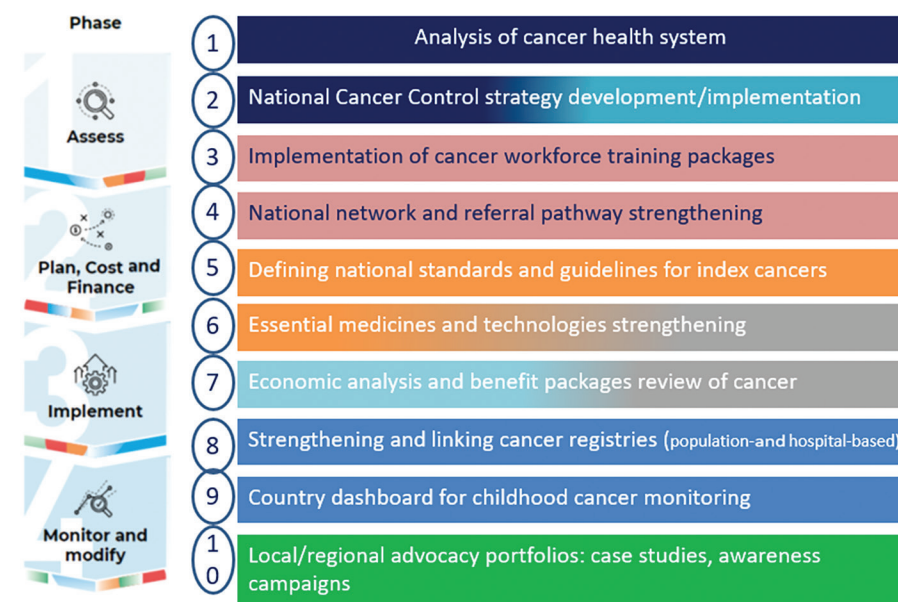
Many successful approaches to implementing *CureAll*'s pillars and enablers have demonstrated that improving care for childhood cancer in LMICs is possible with strong political will, multisectoral commitments and strategic investment.

In WHO's African Region, four countries have completed their initial assessments and eight are currently progressing into the planning phase for *CureAll* implementation. By the end of 2022, three additional countries in the Region – Cameroon, Ethiopia and Uganda – had submitted a formal expression of interest to become an official focus country.

In the Region of the Americas, 17 focus countries and 4 countries in the initial phases of implementation have completed assessments of the capacities of their national health system and childhood cancer programs. Nine focus countries are planning for implementation, and the Dominican Republic, El Salvador, Panama and Peru are implementing their childhood cancer actions plans.

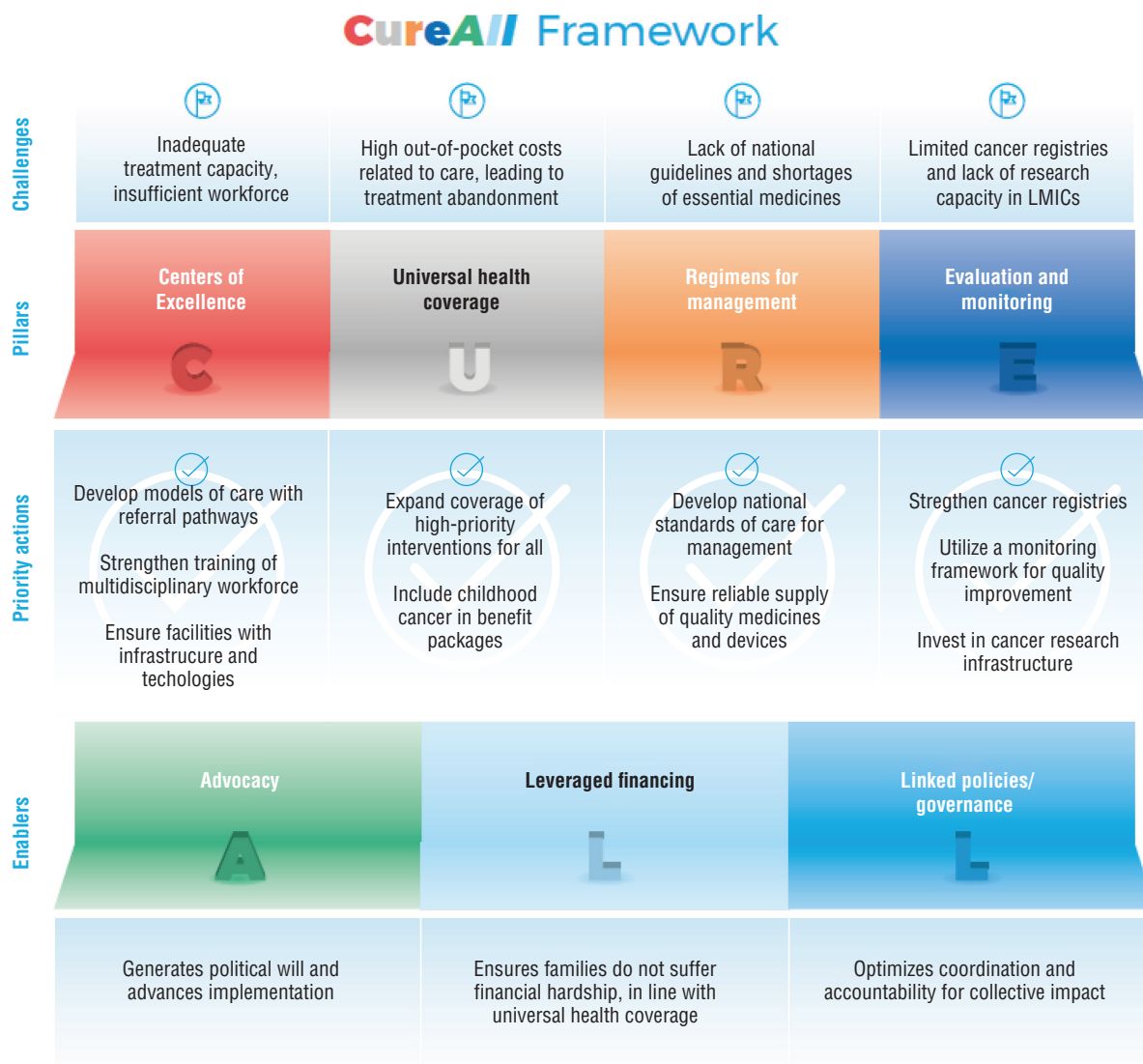
WHO's Regional Office for the Eastern Mediterranean hosted a consultation in January 2021, convening stakeholders from different sectors – including representatives from ministries of health, pediatric oncologists, representatives from global and regional pediatric oncology associations, as well as the three levels of WHO – to outline a specific regional governance structure and to promote suitable modes of collaboration among the different partners under the leadership of WHO (4). A call for proposals to support the implementation of *CureAll* priority projects (Figure 2) was launched to encourage all Member States in the Region to take action on childhood cancer and on regionally agreed priorities. As a result of this call, six additional countries began implementing the Initiative's priority projects, benefiting from funding from the WHO–St. Jude partnership. In alignment with the Initiative's objectives, three of the six countries implementing the *CureAll* framework have developed national standards of care to improve the delivery of services for children with cancer. Childhood cancer has also been included as part of national cancer plans in Iran, Morocco and Palestine.

FIGURE 1. The *CureAll* framework's core projects for focus countries and phases of action to support implementation of WHO's Global Initiative for Childhood Cancer (3)



Source: Figure 1 is used with permission from reference (3).

FIGURE 2. The CureAll framework: four pillars and four enablers to increase access to and the quality of care for children with cancer (3)



LMICs: low- and middle-income countries.
 Source: Figure 2 is adapted with permission from reference (3).

In the South-East Asia Region, a regional collaborative network, known as the South-East Asia Childhood Cancer Network, includes 16 specialist centers in 10 Member States. The network has facilitated knowledge sharing and the exchange of best practices for providing high-quality care for children with cancer in the participating centers (5). One of the relevant achievements of this Network has been the establishment of a shared-care center model in Myanmar and Nepal, which contributes to improving access to care and treatment adherence, and to reducing the financial burden on families (6).

Multisectoral collaboration has facilitated the implementation of the CureAll pillars across the six WHO regions, supported by the Initiative’s enablers of advocacy, leveraged financing and linked governance (3). This has resulted in the prioritization of childhood cancer in national policies and programs that are in keeping with objective two of the Initiative. Childhood cancer was

included in 20 national cancer control policies developed in 2022. In the Region of the Americas, this represented an increase of 62%, from inclusion in 8 policies in 2017 to 13 policies, in 2022 (7).

The development of new legislation has enabled progress toward the attainment of universal health coverage through the inclusion of childhood cancer in the minimum package of benefits in focus countries such as El Salvador, Ghana, Mongolia, the Philippines, and Zimbabwe (8, 9).

Many studies have demonstrated the favorable cost-effectiveness of childhood cancer interventions and the value of investing in childhood cancer programs (10-12). The key message from these studies is that small strategic investments can save lives and bring about overall improvements in health systems. The ratio of expenditures on childhood cancer compared with expenditures on breast cancer is 1:10, and this represents only 2–4% of global spending on cancer.

Childhood cancer constitutes a proxy for progress in the control of noncommunicable diseases, and strengthening care for children with cancer is also associated with having a stronger and more resilient health system. The Initiative has demonstrated that even in fragile and conflict-affected settings, such as in Palestine, Syria, Ukraine and Yemen, it is possible to maintain access to services thanks to the integrated global network that enables their continuation and to efficient service models that allow children to receive care in facilities in neighboring areas, owing to existing ties between providers, civil society organizations and researchers (13, 14).

The progress that has been achieved globally through the implementation of the Global Initiative for Childhood Cancer has demonstrated that improving the quality of care and outcomes for children with cancer is achievable when there are broad political commitments, strategic investment and strategic action plans led by governments and supported by multisectoral partnerships that include parent support and advocacy groups, private sector entities and philanthropic foundations.

Authors' contributions. RO conceived the idea for and wrote the manuscript. All authors collected and interpreted the data, approved the final version of the manuscript and are accountable for all aspects of the work.

Acknowledgements. The authors express their appreciation to St. Jude Children's Research Hospital for their partnership and commitment to advance the Global Initiative for Childhood Cancer and its implementation worldwide.

Conflicts of interest. None declared.

Funding. No financial support was provided for the development of the manuscript.

Disclaimer. Authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the *Revista Panamericana de Salud Pública/Pan American Journal of Public Health* or the Pan American Health Organization.

REFERENCES

1. Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, et al. Cancer statistics for the year 2020: an overview. *Int J Cancer* 2021;149:788-9.
2. GBD 2017 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;20:1211-25.
3. CureAll framework. WHO Global Initiative for Childhood Cancer: increasing access, advancing quality, saving lives. Geneva: World Health Organization; 2021. <https://apps.who.int/iris/handle/10665/347370>
4. Regional consultation meeting on the Global Initiative for Childhood Cancer. *East Mediterr Health J*. 2021;27:738-39.
5. Expanding childhood cancer services [Internet]. New Delhi: WHO Regional Office for South-East Asia; 2023 [cited 2023 April 4]. Available from: <https://www.who.int/southeastasia/activities/expanding-childhood-cancer-services>
6. Transforming childhood cancer care in Nepal through shared care [Internet]. New Delhi: WHO Regional Office for South-East Asia; 2023 [cited 2023 February 28]. Available from: <https://www.who.int/southeastasia/news/feature-stories/detail/transforming-childhood-cancer-care-in-nepal-through-shared-care>
7. Vásquez L. Advances and plans of CureAll Americas 2022 [Internet]. Washington (DC): Pan American Health Organization; 2022 [cited 2023 February 28]. Available from: <https://www.paho.org/en/documents/advances-and-plans-cureall-americas-2022-liliana-vasquez>
8. Ghana: beating childhood cancer [Internet]. Brazzaville: WHO Regional Office for Africa; 2023 [cited 2023 February 28]. Available from: <https://www.afro.who.int/about-us/making-africa-healthier/beating-childhood-cancer>
9. Cancer control legislation in the Philippines a step in the right direction to improve childhood cancer management [Internet]. Manila: WHO Regional Office for the Western Pacific; 2021 [cited 2023 February 28]. Available from: <https://www.who.int/philippines/news/feature-stories/detail/cancer-control-legislation-in-the-philippines-improve-childhood-cancer>
10. Soliman R, Oke J, Sidhom I, Bhakta N, Bolous NS, Tarek N, et al. Cost-effectiveness of childhood cancer treatment in Egypt: lessons to promote high-value care in a resource-limited setting based on real-world evidence. *EClinicalMedicine*. 2022;55:101729.
11. Fung A, Horton S, Zabih V, Denburg A, Gupta S. Cost and cost-effectiveness of childhood cancer treatment in low-income and middle-income countries: a systematic review. *BMJ Glob Health*. 2019;4:e001825.
12. Fuentes-Alabi S, Bhakta N, Vasquez RF, Gupta S, Horton S. The cost and cost-effectiveness of childhood cancer treatment in El Salvador, Central America: a report from the Childhood Cancer 2030 Network. *Cancer*. 2018;124:391-7.
13. Van Helmelryck M, Fox L, Beyer K, Fedaraviciute E, George G, Hadi H, et al. Cancer care for Ukrainian refugees: strategic impact assessments in the early days of the conflict. *J Cancer Policy*. 2022;34:100370.
14. Giving chemo in bomb shelters, Ukrainian oncologists treat and evacuate patients [Internet]. Washington (DC): The Cancer Letter; 2022 [cited 2023 February 28]. Available from: https://cancerletter.com/the-cancer-letter/20220304_5/

Manuscript submitted on 1 March 2023. Revised version accepted for publication on 30 August 2023.

Desarrollo y mantenimiento de una atención de alta calidad para pacientes pediátricos con cáncer: la Iniciativa Mundial de la OMS contra el Cáncer Infantil

RESUMEN

El cáncer es un importante problema de salud pública: afecta a cerca de 20 millones de personas cada año y es responsable de 1 de cada 6 muertes a nivel mundial. La carga del cáncer está aumentando rápidamente, lo que somete a una gran presión a los sistemas de salud que no pueden prevenir y manejar la enfermedad. El cáncer infantil constituye un importante problema de salud pública y tiene gran relevancia: fue la novena causa de enfermedad infantil a nivel mundial, según los hallazgos del estudio sobre la carga mundial de enfermedad correspondiente al 2017. Casi el 80% de todos los casos de cáncer infantil se registran en países de ingresos bajos o medianos, donde el tratamiento a menudo resulta inasequible o no está disponible. Por este motivo, solo sobreviven entre el 15% y el 45% de estos pacientes pediátricos, frente a más del 80% en los países de ingresos altos. Esto constituye una gran inequidad en materia de salud.

En cumplimiento del mandato establecido en la resolución WHA70.12 de la Asamblea Mundial de la Salud, la Organización Mundial de la Salud (OMS) —junto con el hospital pediátrico de investigación St. Jude y otros asociados mundiales— puso en marcha la Iniciativa Mundial contra el Cáncer Infantil ante la Asamblea General de las Naciones Unidas, en ocasión de la tercera reunión de alto nivel sobre la prevención y el control de las enfermedades no transmisibles, celebrada en septiembre del 2018. Esta iniciativa tiene como objetivo incrementar la tasa de supervivencia mundial de los pacientes pediátricos con cáncer hasta por lo menos el 60% para el 2030 y, simultáneamente, reducir el sufrimiento de toda la población infantil con cáncer. Transcurridos cinco años de la puesta en marcha de la iniciativa, más de 70 países de las seis regiones de la OMS han logrado avanzar a distintas fases de actuación mediante la aplicación del marco de acción de la iniciativa denominado *CureAll*. Ha habido muchos enfoques que han dado buenos resultados para la consecución de los pilares y los elementos facilitadores de *CureAll* y que han demostrado que es posible mejorar la atención de la población infantil con cáncer en los países de ingresos bajos y medianos, siempre que haya una férrea voluntad política, compromisos multisectoriales e inversiones estratégicas.

Palabras clave Salud infantil; neoplasias; política de salud.

Desenvolvimento e manutenção de atenção de alta qualidade para crianças com câncer: a Iniciativa Global para o Câncer Infantil da OMS

RESUMO

O câncer é um importante problema de saúde pública que afeta cerca de 20 milhões de pessoas a cada ano e é responsável por uma em cada seis mortes em todo o mundo. A carga do câncer está aumentando rapidamente, sobrecarregando os sistemas de saúde, que não conseguem prevenir e controlar a doença. O câncer infantil constitui um desafio significativo e relevante para a saúde pública: essa foi a nona principal causa de doenças infantis em todo o mundo, de acordo com os resultados do estudo *Global Burden of Disease 2017*. Quase 80% de todas as crianças diagnosticadas com câncer vivem em países de baixa e média renda, onde o tratamento geralmente não está disponível ou é inacessível. Como resultado, apenas cerca de 15% a 45% dessas crianças sobrevivem, em comparação com mais de 80% nos países de alta renda. Isso representa uma grande falta de equidade em saúde.

Cumprindo o estabelecido pela Resolução 70.12 da Assembleia Mundial da Saúde, a Organização Mundial da Saúde (OMS), juntamente com o Saint Jude Children's Research Hospital e outros parceiros mundiais, lançou a Iniciativa Global para o Câncer Infantil na Assembleia Geral das Nações Unidas, durante a terceira Reunião de Alto Nível sobre prevenção e controle de doenças não transmissíveis, em setembro de 2018. A Iniciativa tem como objetivo aumentar a sobrevivência global de crianças com câncer para pelo menos 60% até 2030 e, ao mesmo tempo, reduzir o sofrimento de todas as crianças com câncer. Cinco anos após o lançamento da Iniciativa, mais de 70 países das seis regiões da OMS avançaram para diferentes fases de ação por meio da implementação da estrutura *CureAll* da Iniciativa. O sucesso de muitas abordagens para implementação dos pilares e facilitadores da *CureAll* demonstraram que é possível melhorar o atendimento a crianças com câncer em países de baixa e média renda, desde que haja forte vontade política, compromissos multisectoriais e investimento estratégico.

Palavras-chave Saúde da criança; neoplasias; política de saúde.