

Foreword

The International Agency for Research on Cancer (IARC) has been committed to disseminating information on childhood cancer incidence across populations covered by registries that generate comparable data since the 1970s. This third volume of the International Incidence of Childhood Cancer series (IICC-3) extends the temporal coverage of such data up to the early 2010s. It also expands the age range previously covered (0–14 years) to include adolescents aged 15–19 years and broadens the population coverage to include more regions, particularly in transitioning countries.

Compared with well-resourced countries, where information on childhood cancer distribution has been available for several decades, many countries in Africa, Asia, and Latin America and the Caribbean still lack reliable population-based cancer registries. As a result, estimates of the childhood cancer burden in these regions often rely on extrapolations from data collected elsewhere. However, accurate information on the distribution of cancer cases is essential for effective cancer control planning and policy-making.

Therefore, strengthening cancer registries is a priority action. It reinforces the evaluation and monitoring pillar delineated by the CureAll framework of the World Health Organization (WHO) Global Initiative for Childhood Cancer. IICC-3 contributes directly to this effort by providing comparable data on childhood cancer incidence, thus highlighting variations in cancer distribution across populations defined by country, area, ethnicity, age, and sex. This volume presents data from 308 registries operating in 82 countries and territories, spanning approximately two decades from the 1990s to the 2010s.

Childhood cancers are rare and diverse. Thus, compiling individual cancer records from many populations is essential for setting the standards of comparability, improving the value of the information generated, and interpreting variations in incidence in relation to socioeconomic and environmental conditions. The IICC series respects the specificities of cancers occurring at young ages. Hence, each volume redefines the International Classification of Childhood Cancer to reflect advances in tumour pathology and modernization in medical record collection. The information presented here serves as a vital resource both for research and for the development of national and global cancer control policies.

Data protection regulations have precluded the participation of some registries in IICC-3. However, IARC applies the highest standards of data protection, and these safeguards provide a strong foundation for renewed collaboration with these partners in the future, ensuring that valuable data can continue to inform global understanding.

IICC-3 represents IARC's enduring dedication to advancing research on childhood cancers on a global level. IARC is proud to lead and support efforts that contribute to international cancer surveillance. In 2025, IARC marks its 60th anniversary, celebrating six decades of leadership in international cancer surveillance, driving knowledge and action to inform effective cancer control strategies. Through the Targeting Childhood Cancer through the Global Initiative for Cancer Registry Development (ChildGICR) programme, jointly led by IARC and St. Jude Children's Research Hospital, childhood cancer registration is being promoted globally, particularly in regions where data remain scarce. This initiative will undoubtedly lead to increasingly robust and comprehensive data resources, benefiting future generations of children and their families across the globe.

Dr Elisabete Weiderpass
Director,
International Agency for Research on Cancer

Foreword

Cancers diagnosed in children younger than 15 years are estimated to account for just more than 1% of the total cancer incidence around the world each year, and a further 0.4% of cancers are diagnosed in the age group 15–19 years. Cancers in children differ from those that occur in adults, not only in their rarity but also in their biology and system of classification. Whereas adult cancers are generally grouped based on the body site where the cancer occurs, childhood cancers are classified according to the tissue type of origin, because this is often the better predictor of prognosis. Therefore, it is important that childhood cancer has its own platform for global surveillance and reporting. In this publication, the editors and the International Agency for Research on Cancer (IARC) have met that challenge by collating and publishing the latest available data on new cases of childhood cancer classified according to the International Classification of Childhood Cancer, third edition, 2017 update (ICCC-3-2017).

The data reported here comprise a unique and valuable resource that demonstrates the power of international cooperation and information-sharing in the study of these rare diseases. This collaboration has produced an almost complete picture of childhood cancer incidence around the world, showing us the extent of childhood cancer by type of malignancy and cancer registry. Compiling this information on a global scale has the potential to yield new insights for service planning and evaluation of cancer control programmes, as well as providing a clearer understanding of the burden of this disease on health-care systems in every country. Such insights empower advocacy for increased research and allocation of resources for the timely provision of treatment and support.

Another compelling reason to study childhood cancer incidence across countries is to identify patterns and trends that could help uncover potential risk factors. Little is known about the causes of most childhood cancers. By comparing data between different regions, researchers have the opportunity to study variations in cancer rates and pinpoint commonalities or disparities. This may help to reveal factors that contribute to the development of childhood cancers and guide efforts to mitigate risks.

The information presented in this publication has been made possible by the dedicated efforts of cancer registry staff in every part of the world. I acknowledge and thank the contributing members of the International Association of Cancer Registries (IACR) for their support of this project. The role of population-based cancer registration is central to the provision of accurate and unbiased data on all children diagnosed with cancer. The growing presence of population-based cancer registries in low- and middle-income countries has shone new light on the distribution and burden of childhood cancers in these areas. Sharing of data to support this joint project has also come with the advantage of improving the quality and consistency of the information collected across all cancer registries through a centralized process of feedback and knowledge transfer.

Childhood cancer has a far-reaching impact on the lives of affected children, their families, and communities. Ultimately, we all hope that childhood cancer will be better understood and that increased awareness of this rare disease will improve early diagnosis and outcomes for patients and families. This latest volume of the International Incidence of Childhood Cancer series is another step towards that goal and demonstrates the need for continued sharing of childhood cancer data from registries across the globe.

Joanne F. Aitken
Past President,
International Association of Cancer Registries

Foreword

Remarkable treatment advances over the past decades have resulted in survival of more than 80% of children diagnosed with cancer in high-income settings. However, in low- and middle-income countries, childhood cancer is often detected too late for treatment to be effective, and life-saving medicines and technologies are neither available nor affordable. For these children, survival can be out of reach.

Fortunately, this bleak picture is changing. The World Health Organization (WHO) Global Initiative for Childhood Cancer has had as its goals to save the lives of 1 million children with cancer before 2030, to give all children with cancer the possibility to live full and abundant lives and to live and die without suffering.

We at the Union for International Cancer Control (UICC) have been encouraged by the response from governments, international organizations, civil society, and the private sector to join WHO in meeting these goals to support children and their families and caregivers around the world. These efforts include bringing childhood cancer services within national universal health coverage packages, pushing through legislation for employers to put in place paid leave for parents to care for children diagnosed with cancer, supporting the supply of high-quality medicines and devices, and other key policy, service delivery, and community-based actions.

The collection and analysis of cancer incidence data is the foundation upon which to build effective strategies to deliver the treatment and care that can save lives. These data need to be population-based, so that the observed patterns can be generalized to an entire country or world region. The data need to be comparable, so that observed differences can be ascribed to differences in occurrence rather than differences in data collection mechanisms or coding. And the data need to describe patterns of incidence among populations, to discover inequities and the distribution of childhood cancers both within and across national borders. All of these requirements are met within this volume. Therefore, the information gathered within this publication can be considered as the single most authoritative and reliable source of data on childhood cancer incidence worldwide.

This volume reveals that there are still many gaps, especially in low- and middle-income countries, where either data on childhood cancer are not collected or comparable methods of collection, coding, and quality control are not used. Action is required to fill these gaps and to support the development of population-based cancer registries globally. More complete data strengthen our knowledge and offer insights that can shape policies and interventions and help governments develop, fund, and implement national cancer control plans that meet the needs of their people. Data allow governments to monitor the impacts of their decisions and evaluate them. Data deserve our attention, because every child's life is precious and every family's journey with cancer knows no borders.

UICC is proud to have supported this publication. It is an invaluable resource that has already played a pivotal role in shaping our understanding of the global burden of childhood cancer. With this wealth of data in our hands, we, as a global community, are better equipped to improve the survival and quality of life for children with cancer. Through our collective efforts, we can achieve a brighter future for generations to come regardless of where they live.

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