Maternal orphans due to cancer: 
the intergenerational impact of cancer deaths in women 
(IARC Evidence Summary Brief No. 5)

Lyon, France, 8 March 2024 – The International Agency for Research on Cancer (IARC) has released the fifth IARC Evidence Summary Brief, titled “Maternal Orphans due to Cancer: The intergenerational impact of cancer deaths in women”. This new report summarizes the findings from previous publications by researchers from IARC and partners that dealt with the theme of the intergenerational impact of cancer deaths in women. The report highlights the scale of maternal orphans due to cancer and calls for support to address the needs of the affected generation of children.

“Each year more than 1 million children lose their mother due to cancer. These findings provide critical insights into the scale of maternal deaths due to cancer and the impact of cancer in adults on their children,” says Dr Florence Guida, a scientist in the Environment and Lifestyle Epidemiology Branch at IARC.

Scale of maternal orphans due to cancer

Cancer is the second most common cause of death worldwide. In 2020, cancer resulted in almost 10 million deaths globally. At younger ages, cancer deaths disproportionately affect women more than men. IARC was alerted to the overlooked issue of maternal orphans due to cancer (i.e. children younger than 18 years whose mothers have died from cancer) in a recent breast cancer cohort study in Africa: the African Breast Cancer - Disparities in Outcomes (ABC-DO) study. This study showed that there were more maternal orphans due to breast cancer deaths than there were breast cancer deaths.1

The mortality burden due to cancer has immense emotional and financial impacts at the personal, family, health-system, and societal levels. Children can also be affected during the period of their parent’s cancer care, because of the prolonged physical, psychological, and financial demands of the course of treatment.

Building on the ABC-DO cohort study’s observations, IARC scientists sought to gauge the extent of maternal orphans due to cancer globally. They estimated that there were a total of 7 million maternal orphans due to cancer in 2020, 1 million of whom were newly orphaned in that year as a result of the 4.4 million cancer deaths in women worldwide in 2020.2

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Key findings

Every hour, 120 children lose their mother due to cancer; that is 1 million children per year.

Children in lower-income countries had higher risks of becoming a maternal orphan due to cancer than children in high-income countries, exacerbating inequities.

Almost half of new maternal orphans were due to deaths from breast cancer and cervical cancer, two cancer types that have the potential of low mortality rates.

“There is an urgent need to reduce preventable premature deaths from cancer and address the needs of the affected generation of children,” says Dr Valerie McCormack, Deputy Head of the Environment and Lifestyle Epidemiology Branch at IARC. “All possible must be done to accelerate the implementation of the World Health Organization’s Global Breast Cancer Initiative and Cervical Cancer Elimination Initiative, which have the potential to not only avert millions of preventable cancer deaths in women but also mitigate the often-overlooked intergenerational consequences of these deaths.”

Note to the Editor

This IARC Evidence Summary Brief is the fifth in a series of scientific Evidence Summary Briefs published by IARC to call attention to the findings of evidence-based studies in key aspects of cancer prevention.

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The International Agency for Research on Cancer (IARC) is part of the World Health Organization. Its mission is to coordinate and conduct research on the causes of human cancer, the mechanisms of carcinogenesis, and to develop scientific strategies for cancer control. The Agency is involved in both epidemiological and laboratory research and disseminates scientific information through publications, meetings, courses, and fellowships. If you wish your name to be removed from our press release emailing list, please write to com@iarc.who.int.