

Global burden of cancer among young adults aged 20–39 years

Lyon, France, 28 October 2017 – A new study by researchers from the International Agency for Research on Cancer (IARC), published today in *The Lancet Oncology*,¹ examines for the first time the global burden of cancer among young adults aged 20–39 years. The report provides critical evidence of the burden of the disease in this age group and highlights the urgent need for adequate prevention measures, timely diagnosis, and cancer care.

Cancer burden in young adults

Worldwide, almost 1 million new cases of cancer and 400 000 cancer-related deaths occurred among young adults aged 20–39 years in 2012. Overall, the most common cancer types in terms of new cases were female breast cancer, cervical cancer, thyroid cancer, leukaemia, and colorectal cancer, and the most common types of cancer-related deaths were those due to female breast cancer, liver cancer, leukaemia, and cervical cancer.

The burden was disproportionately greater among women, with an estimated 633 000 new cancer cases (65% of all new cancer cases in that age group) and 194 000 cancer-related deaths (54% of all cancer-related deaths in that age group) in 2012. The most common cancer types affecting women aged 20–39 years were breast cancer (30%), cervical cancer (18%), and thyroid cancer (10%).

“Given the particularly heavy burden of breast and cervical cancers, increasing awareness of cancer in young women at both the public and professional levels as well as timely treatment is of key importance,” says the article’s lead author, Dr Miranda Fidler of the IARC Section of Cancer Surveillance. “National human papillomavirus (HPV) vaccination programmes, early detection, and, in women older than 30 years, screening, could significantly reduce the global burden of cervical cancer in young women, at a limited cost.”

Cancer patterns in young adults

Cancers affecting young adults are a bridge between paediatric and adult oncology. In this study, common tumour types among children (0–14 years) and adolescents (15–19 years), including leukaemia and cancers of the brain and central nervous system, were among the most common cancers in the age group

¹ Fidler MM, Gupta S, Soerjomataram I, Ferlay J, Steliarova-Foucher E, Bray F (2017). Cancer incidence and mortality among young adults aged 20–39 years worldwide in 2012: a population-based study. *Lancet Oncol*. Published online 27 October 2017. [http://dx.doi.org/10.1016/S1470-2045\(17\)30677-0](http://dx.doi.org/10.1016/S1470-2045(17)30677-0)

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20–39 years. However, common epithelial tumours such as breast cancer,² cervical cancer,³ and colorectal cancer⁴ were observed more frequently among young adults than among children or adolescents, although still at lower rates than those observed among people older than 40 years.

Within the age group 20–39 years, the proportions of leukaemia, lymphomas, testicular cancer, and thyroid cancer decreased with increasing age, whereas the proportions of cervical cancer, breast cancer, liver cancer, and colorectal cancer increased with age.

Geography of cancer in young adults

The global cancer burden among young adults aged 20–39 years varied significantly by age, sex, Human Development Index (HDI) level,⁵ and geographical region.

In countries with low, medium, and high HDI level, breast cancer was the most common cancer and cervical cancer the second most common, whereas in countries with very high HDI level, these cancers ranked first and fifth, respectively.

Cancers associated with infection, such as liver cancer and Kaposi sarcoma – particularly in areas in which HIV infection is common – accounted for a larger proportion of all cancers in countries with low HDI level, whereas thyroid cancer, skin melanoma, and testicular cancer occurred more frequently in countries with very high HDI level. It is important to note that in the case of thyroid cancer, screening can lead to large numbers of unnecessary thyroidectomies after detection of benign thyroid nodules.

“More attention should be drawn to the risks of cancer occurring in this relatively young age group,” says IARC Director Dr Christopher Wild. “Increased awareness and an emphasis on the opportunities for prevention and early detection in addition to prompt and adequate treatment would help avoid the devastating effects of cancer in young adults on society and on families.”

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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 e-mailing list, please write to com@iarc.fr.

² Breast cancer ranked first for new cases and for deaths, at all ages.

³ Cervical cancer ranked second for new cases and fourth for deaths, at all ages.

⁴ Colorectal cancer ranked fifth for new cases and sixth for deaths, at all ages.

⁵ <http://hdr.undp.org/en/content/human-development-index-hdi>