Latest global cancer data: Cancer burden rises to 19.3 million new cases and 10.0 million cancer deaths in 2020

Lyon, France, 15 December 2020 – The International Agency for Research on Cancer (IARC) today released the latest estimates on the global burden of cancer. The GLOBOCAN 2020 database, accessible online as part of the IARC Global Cancer Observatory, provides estimates for 2020 of incidence and mortality in 185 countries for 36 types of cancer and for all cancer sites combined.

The global cancer burden is estimated to have risen to 19.3 million new cases and 10.0 million deaths in 2020.¹ One in 5 people worldwide develop cancer during their lifetime, and one in 8 men and one in 11 women die from the disease.

Worldwide, the total number of people who are alive within 5 years of a cancer diagnosis – called the 5-year prevalence – is estimated to be 50.6 million.

Major cancer types in 2020

The 10 most common cancer types account for more than 60% of the newly diagnosed cancer cases and more than 70% of the cancer deaths. Female breast cancer is the most commonly occurring cancer worldwide (11.7% of the total new cases), followed by lung cancer (11.4%), colorectal cancer (10.0%), prostate cancer (7.3%), and stomach cancer (5.6%).

Lung cancer is the leading cause of cancer death (18.0% of the total cancer deaths), followed by colorectal cancer (9.4%), liver cancer (8.3%), stomach cancer (7.7%), and female breast cancer (6.9%).

In men, lung cancer is the most commonly diagnosed cancer and the leading cause of cancer death, followed by prostate cancer and colorectal cancer for incidence and liver cancer and colorectal cancer for mortality. In women, breast cancer is the most commonly diagnosed cancer and the leading cause of cancer death, followed by colorectal cancer and lung cancer for incidence and lung cancer and colorectal cancer for mortality.

Projected burden of cancer in 2040

Worldwide, an estimated 28.4 million new cancer cases are projected to occur in 2040, a 47% increase from the estimated 19.3 million cases in 2020. Using the four-tier Human Development Index (HDI)² as a marker of the degree of national social and economic transition, countries classified as having low or medium HDI will have the greatest relative increases in cancer incidence by 2040 (a 95% and 64% rise from 2020, respectively). In addition, many of these countries are experiencing a marked increase in the

¹ Including non-melanoma skin cancer except basal cell carcinoma.
² HDI is a composite index of average achievement in three basic dimensions of human development: a long and healthy life, education, and a decent standard of living.
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prevalence of known cancer risk factors that currently prevail in countries with high and very high HDI,  
including smoking, unhealthy diet, excess body weight, and physical inactivity.

“The ongoing changes in population structure, the environments in which people live, and the extent to  
which health systems are capable of delivering effective cancer control interventions will together drive the  
scale and profile of cancer incidence, mortality, and prevalence that will emerge over the next decades,”  
says Dr Freddie Bray, Head of the Section of Cancer Surveillance at IARC.

Breast cancer now the leading cause of cancer worldwide

Female breast cancer has now surpassed lung cancer as the most commonly diagnosed cancer  
worldwide. The estimated 2.3 million new cases indicate that one in every 8 cancers diagnosed in 2020 is  
breast cancer. The disease is the fifth leading cause of cancer mortality worldwide, with 685 000 deaths in  
2020. In women, breast cancer accounts for one in 4 cancer cases and one in 6 cancer deaths, and the  
disease ranks first in terms of incidence and mortality in most countries around the world (in 159 and 110  
countries, respectively).

Marked changes in lifestyle, sociocultural contexts, and built environments are having a major impact on  
the prevalence of risk factors for breast cancer in many countries with low and medium HDI. These risk  
factors include the postponement of childbearing and having fewer children, as well as greater levels of  
excess body weight and physical inactivity. Breast cancer incidence rates are converging worldwide, yet  
breast cancer mortality rates and survival proportions are lower in settings with lower HDI, largely because  
of late-stage presentation. “There is an overwhelming need for evidence-based and resource-stratified  
guidelines that support the phased implementation of breast cancer early detection and treatment into  
real-world practice,” says IARC Director Dr Elisabete Weiderpass. “The World Health Organization and  
IARC are currently working together to launch a new global breast cancer initiative in 2021, focusing on  
improving timely diagnosis and comprehensive treatment to improve population-level outcomes.”

New features of the Global Cancer Observatory

The Global Cancer Observatory website includes, via the Cancer Today subsite, facilities for the  
tabulation and graphical visualization of the GLOBOCAN 2020 database for 185 countries and 36 cancer  
types (as well as all cancer sites combined), by age and sex. The revamped Cancer Tomorrow subsite  
provides a suite of data visualization tools to predict the future incidence and mortality burden for a given  
country or region up until 2040. The baseline predictions assume that the 2020 rates will not change, and  
these are applied to national population projections that account for future population growth and ageing.  
A new feature of Cancer Tomorrow is the ability for the user to specify the change in incidence or mortality  
trends from 2020, thus incorporating how the cancer rates may evolve in the future.

“The updated global cancer figures for 2020 highlight the diverse cancer patterns seen today as well as  
the expected rise in the cancer burden over the next decades. There is an urgent need to address the  
disease as both a public health issue and an economic problem, through effective cancer action,” says Dr  
Weiderpass. “Cancer prevention has a key role to play. Effective interventions for prevention and early  
detection are available and must be integrated into cancer planning to control the predicted upsurge of this  
devastating disease.”
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Note to the Editor

The online GLOBOCAN 2020 database, accessible at https://gco.iarc.fr/, is part of the IARC Global Cancer Observatory. The database has user-friendly facilities to produce maps and explore visualizations of the global burden of cancer for 36 specific cancer types and for all cancer sites combined by country or region, age, and sex. These estimates are based on the most recent data available at IARC and on information publicly available online. GLOBOCAN 2020 was developed using a number of methods that are dependent on the availability and the accuracy of the data. National sources are used where possible, and in their absence local data and statistical modelling are used. IARC coordinates the Global Initiative for Cancer Registry Development (https://gicr.iarc.fr/), an international partnership that supports better estimation, as well as the collection and use of local data, to prioritize and evaluate national cancer control efforts.

For more information, please contact

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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 and 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.fr.