Medical Xpress

Call for urgent action to close gap in cancer deaths between rich and poor countries

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Over the past 30 years, cancer control measures have led to rising life expectancy in rich populations, but these gains have yet to be seen in poorer populations, finds a study published by *The BMJ* today.

Urgent global action is needed to close the gap in cancer deaths—by developing and implementing effective, affordable, feasible, and sustainable cancer control measures—in countries undergoing socioeconomic and health transitions.

Mortality rates from cancers and cardiovascular disease (CVD) are declining in most highly developed countries, largely due to programmes of effective prevention, early detection, and treatment. In contrast, cancer mortality rates are still rising or at best stabilising in less resourced countries.

So an international team of researchers, led by Dr. Bochen Cao at the International Agency for Research on Cancer (IARC), set out to measure the impact of cancer compared with CVD on life expectancy in ages 40-84, or the expected number of years lived between 40 and 84 years old, worldwide from 1981 to 2010.

Their findings are based on mortality data from the national civil registration systems of 52 populations in the member states of the World Health Organization for all cancers combined as well as the five most common cancer deaths: lung, colorectum, stomach, prostate, and female breast.

Populations were grouped by two levels of the Human Development Index (HDI)—a social indicator, which measures national wellbeing in terms of wealth, health, and education. Other causes of death were taken into account.

They show that declines in mortality rates from CVD were responsible for over half of the gains in life expectancy in ages 40-84 between 1981 and 2010, with gains of 1.7 years in women and 2.3 years in men in very high HDI populations.

The contribution from cancer was much smaller (up to one fifth of gains in life expectancy in ages 40-84) and varied depending on a population's level of development, with gains of 0.5 years in women and 0.8 years in men in very high HDI populations, and 0.2 years (both sexes) in medium and high HDI populations.

Declining lung cancer mortality rates, linked to improved tobacco control measures, brought about the largest gain in life expectancy in ages 40-84 in men in very high HDI populations (up to 0.7 years in the Netherlands), whereas in medium and high HDI populations its contribution was smaller yet still positive. In contrast, increasing lung cancer mortality rates reduced life expectancy in ages 40-84 in women in many very high HDI populations (up to 0.3 years in the Netherlands).

Among women, declines in breast cancer mortality rates were largely responsible for the improvement in longevity, particularly among very high HDI populations (up to 0.3 years in the United Kingdom), largely due to interventions such as early detection, improved diagnosis, and better access to effective treatment.

In contrast, losses in life expectancy in ages 40-84 were observed in many medium and high HDI populations as a result of increasing breast cancer mortality rates.

The authors point to some study limitations that may have introduced bias, such as inconsistencies in recording cause of death and lack of data from middle and low HDI populations.

Nevertheless, they say their findings are of great relevance to populations in low and middle income countries, commenting that additional resources need "to be urgently allocated to the development and implementation of effective, affordable, feasible, and sustainable cancer control measures in countries undergoing socioeconomic and health transitions."

Global inequality in longevity gains reflects inequities in cancer control, says Marie Louise Tørring from Aarhus University in a linked editorial.

She questions whether rich countries "will eventually reach a ceiling where their economic and social power is no longer enough to overcome cancer as a natural break on the human lifespan." And she concludes that, while even rich countries may fail to control cancer as their populations grow older, "there is plenty that can be done now about current inequities in cancer control, including priority funding for poorer countries and for women."

More information: Benchmarking life expectancy and cancer mortality: global comparison with cardiovascular disease 1981-2010, *BMJ* (2017). www.bmj.com/content/357/bmj.j2765

Editorial: Cancer and the limits of longevity, *BMJ* (2017). www.bmj.com/content/357/bmj.j2920

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