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Global battle against cancer won’t be won with treatment alone
Effective prevention measures urgently needed to prevent cancer crisis

The International Agency for Research on Cancer (IARC), the specialized cancer agency of the World Health Organization, is today launching World Cancer Report 2014, a collaboration of over 250 leading scientists from more than 40 countries, describing multiple aspects of cancer research and control.

Based on the latest statistics on trends in cancer incidence and mortality worldwide, this new book reveals how the cancer burden is growing at an alarming pace and emphasizes the need for urgent implementation of efficient prevention strategies to curb the disease.

“Despite exciting advances, this Report shows that we cannot treat our way out of the cancer problem,” states Dr Christopher Wild, Director of IARC and co-editor of the book. “More commitment to prevention and early detection is desperately needed in order to complement improved treatments and address the alarming rise in cancer burden globally.”

Increasing global burden of cancer
In 2012, the worldwide burden of cancer rose to an estimated 14 million new cases per year, a figure expected to rise to 22 million annually within the next two decades. Over the same period, cancer deaths are predicted to rise from an estimated 8.2 million annually to 13 million per year. Globally, in 2012 the most common cancers diagnosed were those of the lung (1.8 million cases, 13.0% of the total), breast (1.7 million, 11.9%), and large bowel (1.4 million, 9.7%). The most common causes of cancer death were cancers of the lung (1.6 million, 19.4% of the total), liver (0.8 million, 9.1%), and stomach (0.7 million, 8.8%).

The cancer divide
As a consequence of growing and ageing populations, developing countries are disproportionately affected by the increasing numbers of cancers. More than 60% of the world’s total cases occur in Africa, Asia, and Central and South America, and these regions account for about 70% of the world’s cancer deaths, a situation that is made worse by the lack of early detection and access to treatment.

Avoidable deaths
Access to effective and affordable cancer treatments in developing countries, including for childhood cancers, would significantly reduce mortality, even in settings where health-care services are less well developed.

However, the spiralling costs of the cancer burden are damaging the economies of even the richest countries and are way beyond the reach of developing countries, as well as placing impossible strains on health-care systems. In 2010, the total annual economic cost of cancer was estimated to reach approximately US$ 1.16 trillion. Yet about half of all cancers could be avoided if current knowledge was adequately implemented.

“The rise of cancer worldwide is a major obstacle to human development and well-being. These new figures and projections send a strong signal that immediate action is needed to confront this human disaster, which touches every community worldwide, without exception,” stresses Dr Wild.

Effective vaccination campaigns and health promotion
Many developing countries continue to be disproportionately affected by the double burden of high infection-related cancers (including those of the cervix, liver, and stomach) and the rising incidence of cancers (such as those of the lung, breast, and large bowel) associated with industrialized lifestyles.
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Yet the implementation of effective vaccination against hepatitis B virus and human papillomavirus can markedly reduce cancers of the liver and cervix, respectively. Preventing the spread of tobacco use in low- and middle-income countries is of crucial importance to cancer control. Likewise, in rapidly industrializing countries, measures to promote physical activity and avoid obesity should also be prioritized in relation to cancers such as those of the large bowel and breast.

Early detection, diagnosis, and treatment
In addition, low-tech approaches to early detection and screening have proven their efficacy in developing countries. A prime example is cervical cancer screening using visual inspection with acetic acid and cryotherapy or cold coagulation treatment of precancerous lesions. This type of “screen-and-treat” programme has been successfully implemented in India and Costa Rica, for example.

“Governments must show political commitment to progressively step up the implementation of high-quality screening and early detection programmes, which are an investment rather than a cost,” says Dr Bernard W. Stewart, co-editor of World Cancer Report 2014.

Adequate legislation to reduce exposure and risk behaviours
Lessons from cancer control measures in high-income countries show that prevention works but that health promotion alone is insufficient. Adequate legislation plays an important role in reducing exposure and risk behaviours.

For instance, the first international treaty sponsored by WHO, the Framework Convention on Tobacco Control, has been critical in reducing tobacco consumption through taxes, advertising restrictions, and other regulations and measures to control and discourage the use of tobacco.

Similar approaches also need to be evaluated in other areas, notably consumption of alcohol and sugar-sweetened beverages, and in limiting exposure to occupational and environmental carcinogenic risks, including air pollution.

“Adequate legislation can encourage healthier behaviour, as well as having its recognized role in protecting people from workplace hazards and environmental pollutants,” stresses Dr Stewart. “In low- and middle-income countries, it is critical that governments commit to enforcing regulatory measures to protect their populations and implement cancer prevention plans.”


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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.