International Agency for Research on Cancer

World Health Organization

09 May 2012

INFECTIONS CAUSE ONE IN SIX OF ALL CANCERS WORLDWIDE: IARC

Worldwide, **2 million** (16.1%) of the total 12.7 million **new cancer cases** in 2008 are attributable to infections. This fraction is higher in less developed countries (22.9%) than in more developed countries (7.4%) and varies 10-fold by region from 3.3% in Australia and New Zealand to 32.7% in sub-Saharan Africa, according to a landmark study of infection-related cancers published today in The Lancet Oncology[1].

“Many infection-related cancers are preventable, particularly those associated with *Helicobacter pylori*, hepatitis B and C viruses and human papillomaviruses,” the authors say. “Together, these four main infections are estimated to be responsible for 1.9 million cases, mainly gastric, liver, and cervical cancers,” they add.

Cervical cancer accounted for about half of the infection-related burden of cancer in women, and in men liver and gastric cancers accounted for more than 80%.

Of the 7.5 million **deaths from cancer** worldwide in 2008[2], an estimated 1.5 million were from cancers due to infections.

"But the application of existing public-health methods for infection prevention, such as vaccination, safer injection practice, or antimicrobial treatments, could have a substantial effect on future burden of cancer worldwide”, said Dr Catherine de Martel and Dr Martyn Plummer from the International Agency for Research on Cancer (IARC), France, lead authors of the study.

The authors concluded: “The 2011 UN high-level meeting on non-communicable diseases highlighted the growing global agenda for prevention and control of non-communicable diseases. Although cancer is considered a major non-communicable disease, a sizable proportion of its causation is infectious and simple non-communicable disease paradigms will not be sufficient.”

Dr Christopher Wild, the Director of IARC, added: "This study highlights the need for cancer control priorities to be set on a national and regional basis in light of the burden of infection-related cancers, particularly in the low- and middle-income countries".

For more information, please contact Dr Catherine de Martel or Dr Martyn Plummer, International Agency for Research on Cancer, Lyon, France.

[1] de Martel C, Ferlay J, Franceschi S, Vignat J, Bray F, Forman D, Plummer M (2012). Global burden of cancers attributable to infections in 2008: a review and synthetic analysis. Lancet Oncology, Published online May 9, 2012, DOI:10.1016/S1470-2045(12)70137-7
http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(12)70176-6/fulltext

[2] Source : Ferlay J, Shin HR, Bray F, Forman D, Mathers C and Parkin DM. GLOBOCAN 2008 v1.2, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 10 [Internet]. Lyon, France: International Agency for Research on Cancer; 2010. Available from: http://globocan.iarc.fr, accessed on 9 May 2012.